APPENDIX 5.000
PUBLIC FACILITIES

A5.000 GENERAL

A5.001 GENERAL PROVISIONS

Development shall coincide with provision of adequate public facilities for transportation, stormwater, water and wastewater services.

To meet this policy, a development shall be required to provide the above public facilities to serve the site and to extend the public facilities to and through their site along their full frontage to provide for the logical continuation of the City's utility and street systems. A development may be required to modify, upsize, or replace

existing off-site systems to provide adequate public facilities. The Manager shall have the authority to review designs, approve public facilities construction plans, inspect construction, and to accept public facilities for City ownership, operation, and maintenance. The Manager may establish administrative procedures to protect the life, safety, and welfare of the public.

Prior to approval of any land division plat or building permit, all development fees and charges must be paid and either the required public facilities must be completed or a Guarantee of Completion shall be provided to ensure the completion of all required public facilities and private stormwater facilities.

Additional public facilities requirements exceeding those in **Appendix 5** are required by some land use districts for implementation as part of design review. Refer to individual districts for such requirements as are applicable.

A5.002 DESIGN AND CONSTRUCTION STANDARDS

Design and construction of all public facility improvements shall be in accordance with the Gresham Community Development Code, Public Works Standards, and the applicable land use decision(s).

A5.003 GUARANTEE OF COMPLETION

A. Prior to land division final plat approval and construction of any privately financed public facilities, a Guarantee of Completion shall be required for all improvement costs, including grading and erosion prevention, other than those improvements constructed on private property which will become public upon City approval of a final plat.

B. The Guarantee of Completion shall be for 110% of the estimated costs of the public facilities. The estimated costs shall be determined by the Manager based on the Engineer's estimate, the tabulation of bids or other method acceptable to the Manager.

C. The Manager may allow reduction of the Guarantee of Completion amount as portions of the public facilities are satisfactorily constructed and inspected. 10% of the cost of those portions constructed shall be retained as the Guarantee of Completion amount is reduced. Upon acceptance for ownership and operation, the Guarantee of Completion shall be released or returned unless required to satisfy the warranty guarantee requirement in **Section A5.004**.

D. The Manager shall establish standard forms and procedures for the Guarantee of Completion.

A5.004 WARRANTY GUARANTEE

A. Privately financed public facilities shall be warrantied. A Warranty Guarantee is required prior to City acceptance for ownership and operation of privately financed public facilities. The Warranty Guarantee shall be for 10% of the estimated construction cost of the public facilities, or 10% of the amount of the Guarantee of Completion, whichever is greater, but in no case will be less than $2,500. The Warranty Guarantee shall be in effect for a period of two years from the date the City accepts the public facilities for ownership and operation.

B. The Warranty Guarantee may be incorporated as part of the Guarantee of Completion for construction or provided separately.

C. Unless waived by the Manager, repairs required within the original warranty period shall be guaranteed for an additional two years from the ending date of the original warranty period or the date of completion of such repairs, whichever is later.

C. The City may require a separate Warranty Guarantee for any repairs done pursuant to the warranty obligation.

D. The Manager shall establish standard forms and procedures for the Warranty Guarantee.

A5.005 UTILITY EASEMENTS OWNED BY THE PUBLIC

A. All required public easements shall be fully executed prior to building permit approval or public facilities construction plan approval. Final land division plats shall not be approved until all required easements are reflected on the plat, or in the case of easements recorded by separate instrument, in the plat notes. All applicable recording fees shall be the responsibility of the developer. All easements must be shown on the public facilities construction drawings.

B. Easements shall be placed on a single property when the utility is running generally parallel to a property line, except with the consent of the Engineer.

C. If the utility owned by the public is outside the plat boundaries or serves areas outside the plat boundary, recordation of a separate instrument for the easement shall be required and must include an map exhibit.

D. Descriptions, conditions, the location, purpose, grantee, and width of the easement shall be shown on the applicable recorded document. The size of the easements shall be in accordance with the Public Works Standards.

A5.006 RESIDENTIAL LAND DIVISIONS AND BUILDING PERMIT LOT RELEASE

A. Land division final plats shall not be approved prior to approval of public facilities construction plans for all required transportation, stormwater, water, wastewater, and parks public facilities.

B. When required for continuation of City transportation and utility systems, streets, stormwater facilities, wastewater lines, and waterlines shall be extended to the plat boundaries or to a terminus approved by the Manager where physical constraints prohibit extension to the plat boundary. Improvements outside the boundary of a phased subdivision may be staged as determined by the Manager.

C. The land division final plat shall be recorded prior to the issuance of any building permits except as allowed by State law.

D. Subject to the following conditions, building permits for model homes may be approved prior to the release of subsequent permits in accordance with **Section A5.006(F)** & **(G)**:

1. One model home is permitted for a land division with a total of fewer than 20 lots in all phases. For a subdivision with a total of 20 or more lots in all phases, the maximum number of model homes permitted for each phase shall be 10% of the total number of lots in that phase, rounded down to the nearest whole number. The number of model homes approved will be inclusive of, not in addition to, subsequent releases in accordance with **Section A5.006(F)**. If there is an existing home to remain, it will be counted as a model home for the purposes of **Section A5.006(E).**

2. The land division final plat must be recorded prior to issuance of the model home building permit.

3. The developer must select the lot or lots for the model homes and the Manager must approve the selection.

4. Fire coverage, including emergency access and water supply, must be approved by the Fire Marshal.

5. Connection to the wastewater and water systems will not be permitted until those systems are

complete and approved by the Manager.

E. For land divisions of 4 or fewer lots, home building can be concurrent with public facilities construction as long as fire coverage, including emergency access and water supply, are approved by the Fire Marshal. For land divisions of 5 or more lots, the Manager may approve issuance of up to 50% of the building permits after the public facilities necessary to serve structures that could be built pursuant to such building permits are completed as described below:

1. Wastewater, water, and stormwater facilities, except for planting requirements, are substantially complete and operational, constructed to City standards in accordance with the City's pre-pave inspection process and all pre-pave deficiencies are addressed.

2. Streets are curbed and at least one lift (2-inch minimum section) of asphalt is installed. Streetlight and signal conduits, junction boxes, and streetlight foundations shall all be installed.

F. 100% release of building permit shall not be issued until:

1. All public facilities, including but not limited to transportation, water, wastewater, and stormwater, necessary to serve structures that could be built pursuant to such building permits, have been accepted by the Manager.

2. Streetlight installations are completed and energized.

3. All site grading is completed in accordance with approved plans.

4. If the land division includes an existing home to remain, the existing home is connected to City water or wastewater, unless exempt per the land use decision.

5. Project as-built drawings have been submitted and accepted by the City.

6. All fees and charges related to such public facilities have been paid.

7. All work is completed in accordance with applicable standards, including but not limited to, this Code, Public Works Standards, the Gresham Revised Code, and applicable conditions of approval.

8. If plantings and/or amended soil, including but not limited to those in stormwater facilities, are not complete, the Manager may release 100% of the building permits if:

a. The City has been paid for and agreed to take over the responsibility for the plantings, or

b. The developer has provided a separate Guarantee of Completion in an amount of 200% of the estimated cost of the plantings with a date certain when that work will be complete to coincide with the Spring or Fall planting seasons, not to exceed 12 months past the date of acceptance of the public facilities for ownership and operation by the City.

G. If the criteria for 50% release has been met but criteria for 100% release of building permits have not been met, the Manager may elect, if it is in the best interest of the City, to approve release of additional building permits. The Manager shall ensure that the City's and public's interests are adequately protected before releasing any additional permits.

H. Unless approved otherwise by the Manager, no occupancy will be approved on any structure, other than temporary use of model homes, until the criteria for 100% release, in **Section A5.006(F)**, is met.

I. Building permit release in **Sections A5.006(E)** through **A5.006(F)** will be based on the lot number and configuration shown on the approved public facilities plan.

A5.007 NON-RESIDENTIAL DEVELOPMENT, APARTMENTS, AND MIXED USE DEVELOPMENT

A. A building permit for construction shall not be issued until the receipt of engineered drawings and a Guarantee of Completion as per **Section A5.003** for any required public facilities.

B. When required for continuation of City transportation and utility systems, streets, stormwater facilities, wastewater lines, and waterlines shall be extended to and through the site or to a terminus approved by the Manager where physical constraints prohibit extension to and through the site.

C. Generally, any required public facilities must be completed before occupancy is permitted. Completion of the required public facilities may be required prior to issuance of building permits where Manager determines that it is necessary for public health, safety, and welfare.

D. Public facilities may be timed to coincide with the staging of private improvements when the following conditions exist:

1. It is impractical to construct all public facilities at the time of the initial development permit due to the scale of development, conflict with planned public facilities improvement projects, the speculative nature of the demand for water and wastewater usage or transportation access of subsequent portions of the future development on-site, or due to physical constraints.

2. Delaying public facilities construction will not jeopardize the logical extension of public facilities or result in significantly increased costs for the public.

3. The timing of public facilities will occur in increments practical for construction.

4. The required off-site public facilities are provided in a logical fashion.

5. The public facilities provided will be adequate to serve each building permit as it is issued.

E. The Manager may elect to withhold final inspection or the issuance of a certificate of occupancy until:

1. All public facilities necessary to serve the structures have been accepted by the Manager, and

2. All fees and charges related to such public facilities have been paid.

A5.008 SUSPENSION AND STOP WORK

The Manager may issue a stop work order pursuant to GRC 7.50.100 et. seq. at any time work is being conducted in the public right of way or on public infrastructure without a permit or when it is not in compliance with the Public Works Standards. The stop work order may apply to work in the public right-of-way, erosion control work, and work pursuant to a building permit except as limited by building code.

A5.009 DEFERRAL OR IN-LIEU-OF PAYMENTS FOR PUBLIC FACILITIES

The Manager may determine that physical conditions make the required public facilities impractical, there is a lack of rough proportionality between the nature and extent of the required work and the nature and extent of the projected impacts caused by the proposed development, or it would be appropriate to coordinate the required work with improvements funded by other development or the City. In such a case, the Manager may elect to defer the work or require the payment in-lieu of improvements in an amount determined by the Manager. If the work is deferred, the property owner shall sign an agreement that commits the property to participate in the future cost of the work. The agreement shall be recorded with Multnomah County and shall run with the land, meaning future property owners will be subject to the agreement.

A5.010 ADMINISTRATION, MANAGEMENT, AND INSPECTION FEE

A. A person required to construct the public facilities shall pay a fee in the amount of actual costs incurred by the City to provide administration, management, and inspection services of privately financed public facilities. The City shall require an advance deposit of the fee and, if costs are anticipated to exceed the deposit, the City may require additional deposit(s) to cover incurred and anticipated costs. The person required to construct the public facilities shall make the required deposit within ten days of the request. Failure to make the required deposit or any additional deposit(s) may result in a suspension of administration, management, and inspection services by the City**.**

B. In addition to any other remedy allowed by law, in the event of a breach of any agreement relating to the payment of system development charges for the development or if any money is owed to the City pursuant to this section, the City may suspend administration, management, and inspection services. The City shall not accept the public facilities for ownership and operation until the breach is cured or the money paid.

A5.011 TIMELINES

Notice to proceed shall be obtained within one year from the date of approval of the public facilities plan, unless the Manager approves a longer period. All public facilities shall be completed within three years of the date of approval of the public facilities plan unless the Manager approves a longer period

A5.100 WASTEWATER FACILITIES

A5.101 GENERAL PROVISIONS

A. The developer shall install wastewater facilities in a manner prescribed by the Oregon Department of Environmental Quality (DEQ) and the City of Gresham. Connection to wastewater lines shall only be permitted if the Manager determines that the following facilities have adequate additional capacity to serve the development:

1. The interceptor, trunk, and feeder lines to the wastewater treatment plant;

2. Any applicable wastewater pump/lift stations, and

3. The wastewater treatment plant.

B. All connections to and uses of the wastewater system shall be made in accordance with the Gresham Revised Code. The DEQ requirements shall be as detailed in the latest OAR, Chapter 340, Division 52 except that the City of Gresham minimum requirements shall be per OAR 340-52 Appendices A, "Sewer Pipelines," and B, "Raw Sewage Lift Stations".

C. Wastewater facilities shall be designed and constructed in conformance with the Public Works Standards.

D. When wastewater availability or topographic constraints prohibit installation of public wastewater lines within public rights-of-way (i.e. streets), the public wastewater line shall be placed in a public easement. The easement must comply with **Section A5.005**.

E. To be allowed to connect to the public wastewater system, an existing dwelling unit, with an onsite disposal system need only extend the sewer main as far as necessary to create a perpendicular connection to the property from the street.

A5.102 WASTEWATER CONNECTIONS

All lots must have separate connections to the public wastewater system in accordance with the Gresham Revised Code.

A5.103 WASTEWATER PUMPS/LIFT STATIONS

All public wastewater improvements shall be designed to provide gravity service to potential building envelopes for all lots and parcels. This shall apply except where topographical and/or jurisdictional limitations exist and gravity wastewater service cannot be obtained.

A5.104 PUBLIC WASTEWATER SYSTEM DESIGN

The wastewater system shall be designed for the ultimate population, which shall be determined by the land uses identified by the Community Development Plan and shall comply with the current Wastewater Collection System Master Plan and the Public Works Standards. System location, capacity and grade shall allow for extension to serve future development. Wastewater lines through a development shall be sized to be adequate in capacity for the development as well as ultimate tributary areas outside of the development.

A5.105 PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS

A new private onsite wastewater treatment system may only be permitted for up to two dwelling units on a lot of record and meets the following conditions:

A. There is no legal or physical connection point within 300 feet of the property line, or the distance set by the State of Oregon at the time of permit.

B. A Site Evaluation Report conducted by the Multnomah County Sanitarian finds that the site is suitable for subsurface sewage disposal.

C. Parcel and proposed subsurface system must conform to all County and State standards.

D. The property must not be within the boundaries of an existing or proposed wastewater local improvement district.

E. The property owner must agree to connect to the wastewater system when it becomes available. The agreement shall be recorded with Multnomah County and shall run with the land, meaning future property owners will be subject to the agreement.

An existing use which is currently using subsurface disposal may expand, if its existing subsurface disposal system can accommodate the increased loading without modification, as determined by the County Sanitarian, or the development complies with the provisions for a new subsurface disposal system above.

A5.106 TERMINATION OF THE USE OF A PRIVATE ONSITE WASTEWATER TREATMENT SYSTEM

Termination of a private onsite wastewater treatment system will be in accordance with the Gresham Revised Code and the County Sanitarian and Department of Environmental Quality (DEQ) regulations.

A5.107 USE OF PUBLIC WASTEWATER FACILITIES

Use of the public wastewater lines shall be subject to the conditions and restrictions of the Gresham Revised Code.

A5.200 STORMWATER FACILITIES

A5.201 GENERAL PROVISIONS

A. The Manager shall issue a development permit only when there is adequate capacity in the stormwater system to accommodate the runoff from the site, including new public right-of-way, and where stormwater management, including water quality treatment and retention or detention with flow control, have been incorporated into site design as specified in the City's Stormwater Management Manual.

B. All stormwater from the site shall be conveyed to an approved point of discharge.

C. The developer is responsible for extension of the stormwater system.

D. Stormwater facilities shall be designed and constructed in conformance with the Stormwater Management Manual and the Public Works Standards.

E. When stormwater system availability or topographic constraints prohibit installation of public stormwater systems within public rights-of-way (i.e. streets), the public stormwater facilities shall be placed in a public easement. The easement must comply with **Section A5.005**.

F. Public stormwater catch basins must include "Drains to River" medallions, or similar, markers per the Public Works Standards. If the applicant chooses to have the City supply and install these medallions for their project, the applicant shall pay the fee set by separate City Council fee resolution.

A5.202 ACCOMMODATION OF UPSTREAM DRAINAGE

Any extension of public stormwater facilities shall be designed to accommodate all potential runoff from the upstream tributary areas, whether such areas are inside or outside the development site. The quantity of runoff volume to be accommodated shall be based upon the ultimate potential runoff volume of all upstream future development, as specified in the Public Works Standards, per the expected impervious surface based on the Community Development Plan. The basis for the design of all public system improvements shall be the design storm(s) as set forth in the Stormwater Management Manual.

A5.203 EFFECT ON DOWNSTREAM DRAINAGE

Where it is anticipated that the increase in runoff from the proposed development will overload an existing stormwater system, the approval authority shall withhold approval of the development until provisions have been made for improvement to the existing drainage facility. If development will increase or concentrate runoff across an adjacent private property, written permission must be obtained from the affected property owner.

A5.204 DATA REQUIREMENTS

A. All land use applications shall include sufficient information for the Manager to evaluate the developer's intent to convey the site's stormwater to an acceptable point of discharge in accordance with **Section 9.0500** of this document, and the feasibility of their proposed methods to do so. This information, unless otherwise stated in this document, may be included as part of the site plan for development or land division.

B. If the site lies within, or partially within, the Hillside and Geologic Risk Overlay District, the special reports

described in **Section 5.0200** may be required as part of the application. If the property contains terrain over 15% slope which is outside the mapped Hillside and Geologic Risk Overlay District, the Manager may require some or all of those reports be submitted to show the feasibility of the developer's proposal.

C. Sufficient data shall be included with any building permit application to show compliance with **Sections 9.0510, 9.0511, 9.0512** and **A5.200** of this document. The Manager may require that a grading and drainage plan meeting the requirements of **Section 9.0502** be submitted with the building permit application. This requirement shall be based on scale of development, significant cuts and fills or likelihood of serious drainage problems.

D. An approved grading and drainage plan meeting the requirements of **Section 9.0502** will be required prior to start of construction or final land division plat approval.

E. Floodplain information, delineating the 100-year floodplain limits, shall be shown where it occurs within the development. Floodplain limits shall be based on maps prepared by the U.S. Army Corps of Engineers and the Federal Emergency Management Agency (FEMA). Where more accurate information is available, it shall be used by the design engineer.

A5.205 STORMWATER MANAGEMENT PRACTICES

Stormwater systems shall comply with the recommendations and requirements of the City's current Stormwater Master Plan. Where specific recommendations or requirements do not exist in the master plan, or where downstream facilities are deemed inadequate by the Manager, a development may be required to employ stormwater management practices which minimize the amount and rate of surface water runoff into the public stormwater system. Such stormwater systems shall comply with the Stormwater Management Manual. Stormwater management practices may include, but are not limited to:

A. Emphasizing natural groundwater infiltration recharge (where supported by soil analysis) and natural drainageways;

B. Minimization of impervious surfaces;

C. Prevention of uncontrolled runoff from development;

D. Temporary Ponding of Water;

E. Permanent Storage basins;

F. Stabilization of natural drainageways as necessary below drainage and culvert discharge points for a distance sufficient to convey the discharge without channel erosion; runoff from impervious surfaces shall be collected and transported to a natural drainageway with sufficient capacity to accept the discharge.

A5.206 EXEMPTION FROM WATER QUALITY AND DETENTION REQUIREMENTS

A development that will add or replace less than 1,000 square feet of impervious area is exempt from water quality and detention requirements.

A5.207 PRIVATE SUBSURFACE STORMWATER FACILITIES

Stormwater management requirements may be met by using private, on-site, infiltration-groundwater recharge

stormwater facilities under the following conditions:

A. A geotechnical investigation is provided which shows the suitability of the soils for the permanent use of infiltration-groundwater recharge systems. Such investigations shall include one or more in-situ, percolation tests conducted in conformance with the Public Works Standards.

B. The use of infiltration-groundwater recharge facilities will not jeopardize the implementation of the current Stormwater Master Plan or preclude the extension of required stormwater improvements.

C. The use of infiltration-groundwater recharge stormwater facilities complies with the regulatory requirements of the DEQ Underground Injection Control (UIC) Program. Refer to Chapter 340, Division 44 et. Seq. Oregon Administrative Rules, Construction and Use of Waste Disposal Wells or Other Underground Injection Activities (Underground Injection Control).

On-site systems proposed under this section shall be designed and constructed to the Public Works Standards and Stormwater Management Manual. Once constructed, the on-site system shall be privately owned, operated and maintained. It shall be the owner's responsibility to maintain or modify the system to prevent runoff to the public right-of-way or other properties.

A5.208 MINIMUM DESIGN CRITERIA

The design storm recurrence interval, and duration, to be used in the design of all public stormwater systems shall be in accordance with the Stormwater Management Manual.

A5.209 BACKYARD STORMWATER SYSTEMS

When lots or parcels drain to the rear, it may be necessary to provide a private drainage system in private easements. This system shall be for the collection of runoff from roof drains, footing drains, and surface runoff. This system shall be designed to meet the Oregon Plumbing Specialty Code requirements. Maintenance of private drainage systems shall be the responsibility of the property owner and/or homeowners association or equivalent. Maintenance responsibility shall include all elements of the system up to the point of connection with a public stormwater system. Such connection shall be subject to the City approval and comply with the Public Works Standards. Per the Public Works Standards, where a backyard drainage system crosses property lines and benefits multiple lots or parcels, it must be a public system in a public stormwater easement.

A5.210 STORMWATER QUALITY CONTROL REQUIREMENTS

Stormwater quality control requirements shall be in accordance with **Section 9.0520**, and the Stormwater Management Manual.

A5.300 WATER FACILITIES

A5.301 GENERAL PROVISIONS

A. Water distribution systems shall be designed to meet State Water Administrative Rules and the guidelines of the current adopted Water System Master Plan.

B. Except as authorized by **Subsection (C)**, a developer for a development permit shall provide for installation of water distribution and fire protection facilities necessary to directly serve the proposed development. Required water system demands shall be met by maintaining the minimum operating pressures required by the City. For low density residential areas, the minimum static pressure shall be 35 pounds per square inch and the minimum fire flow shall be 1,000 gallons per minute. The water distribution and fire protection facilities shall be connected to an approved existing water system. All waterlines shall be located within the public right-of-way or as directed by the City Engineer. The developer must demonstrate that adequate facilities are available to properly serve the development.

C. All new development shall be required to connect to a public water system, except that a development permit to construct no more than two dwelling units on an existing lot of record, when the property is more than 300 feet from a public waterline, may construct an on-site private well for water service until a public waterline is available to serve the site. Such development shall be exempt from the fire protection facilities requirement when the property is more than 600 feet from a public waterline. When a waterline is greater than 300 feet but less than 600 feet from the lot, the property owner shall pay for the cost of a fire hydrant and its installation at the terminus of the existing waterline prior to issuance of a development permit if a hydrant is needed. The construction of the private well shall meet State of Oregon well standards. Upon construction of a public waterline to a lot or parcel that is served by a well, the owner will be required to connect to the public water system within 12 months. The private well shall be abandoned per the requirements of the Oregon Water Resources Department upon connection to the public water system unless the property owner installs a City approved backflow prevention device immediately downstream of the water meter. The property owner shall pay the property's fair share of the public water system along the lot's street frontage or through the property to provide for the logical continuation of the water system. Prior to the issuance of a development permit, the property owner shall sign an agreement to pay the appropriate share of the waterline construction costs at the time it is constructed. The agreement shall be recorded with Multnomah County and shall run with the land, meaning future property owners will be subject to the agreement.

D. Connections to public water systems shall be made in accordance with the Gresham Revised Code.

E. Water distribution systems shall be in conformance with the Public Works Standards.

F. When water availability or topographic constraints prohibit installation of public waterlines within public right-of-way (i.e. streets), the public waterline shall be placed in a public easement. The easement must comply with **Section A5.005**.

A5.302 PUBLIC WATER SYSTEM DESIGN

Design of a public water system to serve a development shall take into account future extensions beyond the development and shall be consistent with the current Water System Master Plan. A public water system shall have the proper pressure to assure adequate fire protection and fulfill consumer demand. A public water system

shall provide the minimum fire flows and pressures required under the Gresham Revised Code Chapter 5, except as provided in **Section A5.301(C)**.

A5.303 GRID SYSTEM

The distribution system waterlines shall be looped at all possible locations per Public Works Standards.

A5.304 CONNECTION TO PUBLIC WATERLINES

If more than one waterline exists to which a new development may connect, the City of Gresham will dictate the proper waterline to connect to based on pressure, service level, and the City's intergovernmental agreements with other water purveyors.

A5.305 WATERLINE OVERSIZING AND REIMBURSEMENT

A development shall be required to build waterline facilities in accordance with the Water System Master Plan. If the waterline size exceeds the minimum size needed to provide fire, domestic, and irrigation flows to the development, and the upsizing is not eligible for system development charge credits, the developer may be reimbursed by the City for oversizing of the waterline based on a compensation rate adopted by City Council resolution. A reimbursement district may also be established if adjoining properties can connect to the waterline, however, in no instance shall total possible compensation exceed actual project cost.

A5.400 STREETS

A5.401 GENERAL PROVISIONS

The City's transportation policies assure public street connectivity to create a logical and continuous local street pattern that reduces out of direction travel for all users. No development permit shall be issued unless the development has frontage or approved access to a public street. Abutting streets shall be dedicated and improved to the Public Works Standards. No development will be permitted where it will cause traffic generation at a Level of Service beyond the street's current carrying capacity, including pavement width and signalization. No development permits will be granted where such development will create dangerous or hazardous traffic conditions. Approved access may be appropriate as an alternative to the preferred public street frontage for qualified residential flag lots, mixed use and commercial centers, and industrial business parks where access easements promote an acceptable level of public access and street system connectivity.

As used in this section, for development in Heavy Industrial (HI) and General Industrial (GI) land use districts, "current carrying capacity" includes capacity from a planned transportation improvement that: i) is included in the City of Gresham adopted Five-Year Capital Improvement Plan as a funded project; and ii) is included in the City's current project list for the Transportation System Development Charge Methodology resolution; and iii) there is a City-approved mechanism in place to fund the transportation improvement; and iv) the schedule to complete the transportation improvement has been approved by the City Manager.

A5.402 GENERAL DESIGN AND CONSTRUCTION REQUIREMENTS

A. **Performance Standards** - All street designs shall provide for the safe and efficient travel of motor vehicles, bicycles, and pedestrians. Streets shall be designed to carry the recommended traffic volumes identified for each street classification. Street classifications are set forth in **Section A5.501**. Public streets, including alleys, within the development shall be improved in accordance with the requirements of the Community Development Code, the Public Works Standards, and the requirements of the City Engineer.

Streets shall be designed to meet or exceed minimum guidelines. These guidelines are set forth in the "AASHTO Policy on Geometric Design of Highways and Streets" (latest edition) and the Public Works Standards. Traffic Control Devices shall conform to the "Manual on Uniform Traffic Control Devices for Streets and Highways", Federal Highway Administration, with Oregon Supplements, Oregon Dept. of Transportation (latest edition).

B. **Identification** - Development plans shall identify the classification of proposed streets as listed in the Transportation System Plan and **Section A5.501**. The plan shall also identify which street section is proposed for each street.

C. **Level of Service Criteria –** Minimum performance must be maintained at City intersections. The standards are based on the ratio of the measured turning movement volumes to the calculated intersection capacity (volume to capacity ratio or V/C). Different standards apply depending on where the intersection is located. Most City intersections require an overall V/C of 0.90 or less, with no individual movement having a V/C larger than 0.95. At intersections that are within Metro-designated Regional or Town Centers (such as Gresham Regional Center or Rockwood Town Center), the overall V/C must be below 0.99 and there is no maximum V/C for individual movements.

D. Street Layout - Street layouts shall be rectilinear. Exceptions may be granted to adapt streets to topographic or other natural conditions if the layout is an interconnected street system with multiple points of connectivity to existing local streets.

E. **Block lengths and Perimeters.** The following table provides block length and perimeter standards.

Street Type	Maximum Length	Maximum Perimeter
Local: Residential or Commercial	400 feet	1800 feet
Local: Industrial	530 feet	1800 feet
Collector	530 feet	1800 feet
Arterial	530 feet	N/A

Block length is measured between intersecting streets along the nearside right-of-way line. Local street block lengths may exceed 400 feet where precluded by topographic or other physical constraints, or existing development patterns, existing block lengths, or as approved through an adopted master plan. When the block length is permitted to exceed the maximum, a public connector path and street crossing is required that meets the standards of **Section A5.509**.

F. Dead-End Streets. The Manager may approve a cul-de-sac, a minor access street, or the termination of an existing temporary dead-end street when the following criteria are met:

1. Where construction of a through street is impractical due to topography, or existing development patterns, or arterial and collector intersection spacing restrictions, or significant physical constraints such as a jurisdictional wetland, a natural resource area, dedicated open space, a detention facility or waters of the state; and

2. Emergency vehicle access and fire protection are provided that meet Gresham Fire Department's requirements or the Public Works Standards.

3. A cul-de-sac shall also be consistent with **Section A5.501(E)** and a minor access street with **Section A5.501(F)**.
Note: The criteria in this section is not intended to preclude the use of curvilinear "eyebrow" widening of a local street where needed to provide adequate lot frontage. An eyebrow is not considered a cul-de-sac.

G. No land division shall be approved which accesses a permanent dead-end street system when:

1. The street is in excess of 250 feet, or

2. More than 25 units would access the street, or

3. The street exceeds the allowable grade in the Public Works Standards.

A5.403 TRUCK RESTRICTIONS

For Minor Arterial streets, trucks will be allowed if the trip destination is on a connecting residential or commercial local street.

For Local Queuing Street, Minor Access Street and Cul-de-sac streets, no trucks will be allowed in residential or

commercial areas except local delivery or service vehicles.

A5.404 RESIDENTIAL ACCESS TO ARTERIAL STREETS

Access to arterial streets for residential uses shall be approved when legal access is not available via a lower classification street or alley unless otherwise approved by the Manager. If access to an arterial street is permitted, to limit possible traffic hazards, the Manager may require shared driveway approaches. No lots or parcels shall derive direct vehicle access that requires vehicles to back into traffic onto an arterial street.

A5.405 FUTURE RIGHT-OF-WAY

Unless approved by the Manager, building permits shall not be approved for structures within a future right-of-way. Future right-of-way location and width is determined by **Section A5.501**, an adopted future street plan or the Transportation System Plan. Setbacks for proposed buildings adjacent to future right-of-way shall comply with the setback requirements for that future street's right of way location.

A5.406 STREET LIGHTING

A. A complete lighting system, including, but not limited to: conduits, wiring, bases, poles, arms, and fixtures, shall be the responsibility of the developer on all streets and public multi-use paths upon which the development has frontage.

B. All proposed street lighting shall be in accordance with Public Works Standards.

A5.407 STREET AND TRAFFIC CONTROL SIGN STANDARDS

Required signage shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways" published by the Federal Highway Administration, U.S. Dept. of Transportation, and as designated by the Manager. The developer is responsible for the cost and installation of street and traffic control signage required for their development.

A5.408 HALF STREETS

Half-streets will only be approved where development of the remainder of the street has a reasonable chance of occurring with future development. Existing development patterns and topography are examples of possible constraints that would disqualify a half street proposal. Where such a street is justified, the right-of-way and pavement width shall be approved by the City Engineer and comply with the Public Works Standards. In no case shall the pavement width required be less than that required to provide two lanes of traffic to pass at a safe distance. For any local street, the half-street improvement shall be at least 20 feet.

A5.409 ADDITIONAL RIGHT-OF-WAY AND STREET IMPROVEMENTS

Except for alterations that do not add dwelling units to single detached dwellings and middle housing dwellings,

whenever existing public street improvements, including public streets adjacent to or within a development, do not meet city standards, the developer shall construct the public street improvements, including dedication of rights-of-way, to the Public Works Standards.

A development on an unimproved street shall be responsible for constructing a continuous 20-foot half-street to a connection with the nearest standard publicly-maintained street.

A5.410 STREET NAMES

Street names and property numbers shall be assigned by the City and shall conform to the City of Gresham Street Naming and Property Addressing Guidelines, a document approved by separate Council Resolution.

A5.411 TRAFFIC ANALYSIS

A traffic analysis will be required for a development 1) when it will generate 1,000 vehicle trips or more per weekday, or 2) when the City Engineer determines that a development's location, proposed site plan, or traffic characteristics could affect traffic safety, access management, street capacity, or other known traffic problems or deficiencies that exist in a development's study area.

The report will be prepared by a licensed traffic engineer in the State of Oregon and shall be prepared in accordance with the Public Works Standards.

A5.412 UTILITY LICENSE REQUIRED

A. The Manager shall not accept a public street improvement for ownership and operation if, within the dedicated public right-of-way there are any utility facilities that are not authorized by a utility license issued pursuant to GRC Article 6.30.

B. No development shall exclude any person who has a utility license issued pursuant to GRC Article 6.30 from installing utility facilities within the dedicated public right-of-way or a general utility easement. Such installation shall be coordinated with the developer and other utilities.

A5.500 TRANSPORTATION SYSTEM DESCRIPTION AND FUNCTION

A5.501 STREETS

Street functional classification refers to the design of streets to accommodate various levels of traffic demand, adjacent land uses, transit service, and bicycle and pedestrian travel. The Functional Classification System Map, found in the current Transportation System Plan, depicts the classification of all streets designated Freeway through Collector Street. The Civic and Downtown plan areas have street cross sections that may supplement the Functional Classification Map. All other streets are local streets. Additional Collector Streets may be identified through development or City initiated Future Street Plans.

Streets shall be designed in accordance with the Public Works Standards.

Table A5.501

Street Classification	Typical Average Daily Trips	Motorist Travel Lanes	Bicycle Lane	Parking	Median	Landscape Strip	Sidewalk	Pave-ment Width	Right-of-Way Width
Major Arterial	25,000-60,000	4 lanes	Yes	Not allowed, except where designated boulevard, then optional	Yes	Yes	Yes	74’	104’
Standard Arterial	15,000-40,000	4 lanes	Yes	Not allowed, except where designated boulevard, then optional	Yes	Yes	Yes	66’	96’
Minor Arterial	10,000-20,000	2 lanes	Yes	No	Yes	Yes	Yes	48’	74’
Major Collector	1,000-10,000	2 lanes	Yes	Yes	No	Yes	Yes	48’	74’
Standard Collector	1,000-10,000	2 lanes	Yes	No	No	Yes	Yes	36’	60’
Minor Collector	1,000-10,000	2 lanes	No	Yes	No	Yes	Yes	36’	60’
Local Queuing	800 or fewer	2 lanes	No	Yes	No	Yes	Yes	26’	58’[1]
Local Transitional	1000 or fewer	2 lanes	No	Yes	No	Yes	Yes	32’	64’[1]
Local Industrial	1000 or fewer	2 lanes	No	Yes	No	Yes	Yes	40’	60’[2]
Local Commercial	1000 or fewer	2 lanes	No	Yes	No	Yes	Yes	36’	56’[2]
Minor Access Street	58 or fewer	2 lanes	No	No	No	No	No	30’	32’

Table A5.501 Notes

1. The property owner or developer must construct the public street improvements, including dedication of rights-of-way, to the Public Works Standards. This is the maximum right-of-way-width.
2. Right-of-way widths shall be increased by 4 feet when in Pleasant Valley, Springwater and Kelley Creek Headwaters plan areas. The additional right-of-way is to accommodate a wider landscape strip.

A. Local Queuing Streets

Local queuing streets have a 58-foot-wide right-of-way with a 26-foot-wide pavement width. The following standards apply:

1. Block length is no more than 200 feet, with the exception for the width of a bisecting alley.

2. No Parking shall be posted on one side of the street.

3. A queuing street may only dead-end if there is an adopted future street plan for the street's extension.

B. Local Transitional Streets

Local transitional streets have a 64-foot-wide right-of-way, 32-foot-wide pavement width and applies in the following areas:

1. The primary local street for residential subdivisions shall be the local transitional street.

2. Continuation of existing local streets in established neighborhoods to the next intersection.

3. On primary emergency response routes.

4. On local streets where volumes are expected to exceed 800 average daily trips.

C. Local Industrial Streets

The local industrial street standard, with a 60-foot-wide right-of-way and 40-foot-wide pavement width, applies in industrial districts.

D. Local Commercial Streets

The local commercial street standard, with a 56-foot-wide right-of-way and 36-foot-wide pavement width, applies in commercial districts.

E. Cul-de-sac

In accordance with **Section A5.402(F)&(G)**, a cul-de-sac is only to be used as a short, low speed, low volume street with two travel lanes, terminating in a dead-end turnaround. Cul-de-sacs are not permitted on minor access streets or local queuing streets.

F. Minor Access Streets

In accordance with **Section A5.402(F)&(G)**, a minor access street is a dead-end street intended to provide public street access to lots or parcels created as part of an infill process and there is no opportunity for connection through to another public street.

1. Limits: The maximum length of a minor access street shall be 250 feet. No more than ten residential units can have frontage and/or access to a minor access street. No more than one Minor Access Street is permitted per parent parcel subdivision if it meets the criteria of **A5.402(F).** The maximum setback from the end of the street to the front of the building shall be pursuant to **Table 4.0131, Note 5.**

2. Branch Turn Around. A branch-type turnaround designed to Public Works Standards shall be provided at the end of the minor access street.

3. Pavement: The pavement section shall be 30 feet wide within a 32-foot right-of-way.

4. Sidewalks. No sidewalks are required due to the extremely low traffic volumes on the street.

5. Parking: "No Parking" shall be posted on one side of the entire minor access street.

G. Other Classifications

1. Transit Street

A street which serves a significant function of carrying high volume transit service. The traffic carrying function is secondary to its transit service function. Ease of pedestrian movement and pedestrian safety and transit-supportive development are primary considerations on this type of street. This designation is applied in addition to the basic street classification.

Transit streets are designated on selected streets which currently or are planned to have a high frequency of weekday transit service and some service seven days a week. The criteria for transit street designation are:

- **a.** Current 20 minute (or better) frequency of service, weekday peaks, and; Daytime and evening service, weekdays and; Weekend service on both Saturday and Sunday; or
- **b.** A street designated as a regional transit corridor in a regional growth plan or transportation plan, or designated a high capacity or primary transit route in the Gresham Transportation System Plan.
  Future refinement of transit service levels and network may occur through future regional and local transportation system planning processes.

2. Transitway

A transitway serves as an exclusive right-of-way for transit use, either bus or light rail. A transitway will provide regional service which will be supported by a network of local feeder buses, transit centers, and park-and-ride facilities. This designation is applied in addition to the basic street classification.

3. Transit Route

Transit routes are designated on all streets with current but infrequent transit service (that do not meet transit street service criteria). Transit routes are subject to future designation as transit streets, as future refinement of transit service levels and network occurs through the regional and local transportation system planning processes. This designation is applied in addition to the basic street classification.

4. Private Accessway

A private accessway serves a number of dwelling units under condominium unit ownership, or within a manufactured home park, or apartments in those areas where a continuation of a public street system is not needed.

If the use of a private accessway creates conflicts with efficient local circulation and emergency access needs, public streets may be required. Private accessways shall comply with the Public Works Standards.

5. Alleys

- **a.** Alleys, with a 21-foot-wide right-of-way and 20-foot-wide pavement width, are allowed in residential developments and can provide efficient lot use, support front yard pedestrian orientation and landscape spaces and reduced lot coverage by driveways. Alleys serve as a common driveway, for access, utilities, and deliveries. Alleys may be provided in commercial and industrial developments with approval by the Manager.
- **b.** Alleys must be constructed continuously from one street to a parallel or intersecting street. Alleys must begin and end at connections with streets classified between and including

Minor Arterial and Local Queuing Streets and are restricted to 400 feet in length. All lots and parcels must have frontage to a public street.

A5.502 INTERSECTIONS

Connecting street intersections shall be located to provide for traffic flow, safety, and turning movements, as conditions warrant.

Arterial Intersections: Exclusive left and right turn lanes will be provided; bus turnouts will be provided if traffic flow and safety conditions warrant; designated crosswalks will be provided at controlled locations; street alignments across intersections shall be continuous.

Collector Street and Local Street Intersections: Street and intersection alignments should facilitate local circulation but avoid alignments that encourage non-local through traffic.

Streets shall be aligned so as to intersect at right angles (90 degrees). Angles of less than 75 degrees shall not be permitted. Intersection of more than two streets at one point shall not be permitted.

New streets shall intersect with existing street intersections so that centerlines are not offset, except as provided in the Public Works Standards. Where existing streets adjacent to a proposed development do not align properly, conditions may be required of the development to provide for proper alignment or prohibit some traffic movements.

A5.503 DRIVEWAYS

Access to private property shall be permitted with the use of driveway curb cuts. The access points with the street shall be the minimum necessary to provide access while not inhibiting the safe circulation and carrying capacity of the street and shall be constructed in accordance with the Public Works Standards.

A5.504 TRANSIT FACILITIES ALONG BUS ROUTES

Improvements along the development site's frontage must meet TriMet's current design standards. These improvements include but are not limited to paved waiting areas, signage, bus turnouts, curb extensions, median refuges for pedestrian crossings, bus shelters, benches, or pedestrian lights. The improvements shall be required by the Manager if the following criteria are met:

A. If there is a bus stop along the frontage.

B. If any portion of a site's major or standard arterial street frontage is greater than 600 feet from a controlled intersection or other enhanced crossing.

C. The proposed development is estimated to generate over 1,000 average daily vehicle trips.

A5.505 TRANSITWAY STANDARDS FOR LIGHT RAIL

A. Light Rail Transitways should be located on streets or within separate rights of way. For any street that includes an existing or planned Light Rail Transitway within the right-of-way boundaries, half-street improvements shall be made on both sides of the Light Rail Transitway as if the appropriate cross section centerline were placed 2 feet outside of each of the light rail's median face of curbs.

B. Light Rail Transitway Stations shall be located, when possible, at locations with 24-hour activity.

C. The location of curb ramps, elevators and other parts of the pedestrian circulation system in new light rail stations shall be placed to minimize the distance wheelchair users travel.

D. Pedestrian crossings for light rail tracks shall have different paving material to distinguish light rail crossing areas from street pavement or exclusively pedestrian areas.

E. Platform edges bordering a drop-off and not protected by screens or guard rails shall have a detectable warning.

F. All light rail station areas, entrances and exits shall be well lit.

1. Exterior lighting should be an integral part of architectural and landscape design.

2. The minimum lighting level for station walkways is 4 footcandles. Lighting shall be pedestrian scale 3 feet to 12 feet and the source of light shall be shielded to reduce glare.

G. Light Rail shelters shall be designed with public safety in mind. Shelters must be designed so that people can be easily recognized and be seen inside the structure from adjacent streets and designed with two access points/escape routes from both ends or through the structure.

A5.506 SIDEWALKS

A. Public sidewalks are required on the public street frontage of all new residential construction, all non-residential construction that requires a development permit, and residential remodeling that involves substantial improvement as defined in **Section 3.0103**. Construction of sidewalks and driveways will be in accordance with the Public Works Standards. In a residential land division the developer shall provide a Guarantee of Completion equal to 110% of the estimated cost to complete construction of sidewalks to assure complete construction of all public sidewalks within two years of the date the street is accepted for ownership and operation by the City.

B. Sidewalk construction for developable lots within a residential land division may be deferred to the occupancy of the home or homes on a lot, however, the Guarantee of Completion still applies to those deferred sidewalks. Sidewalks along undevelopable tracts shall be built prior to acceptance of the public facilities.

A5.507 BICYCLE FACILITIES

All streets shall be designed for bicycle facilities per the Transportation System Plan's Bicycle System Plan. Buffered bicycle lanes are required on all new or improved arterial, and major and standard collector streets, except arterial streets in the Pleasant Valley and Springwater Plan Areas where enhanced bicycle facilities are required. Enhanced bicycle facility options can be found in the Transportation System Plan and shall be approved by the Manager.

A5.508 PUBLIC PATHS AND TRAILS

A. If the City's current paths and trails map shows a path or trail on a proposed development's property or adjacent right-of-way, the development shall construct the facility and dedicate the required public access easement or right of way to allow public use as a component of the provision of adequate public facilities.

B. The Manager may determine that construction of a separate path or trail is not feasible due to physical or jurisdictional constraints. Such evidence may include, but is not limited to:

1. Other Federal, State, or Local requirements prevent construction of a path or trail;

2. The nature of abutting existing development makes construction of a path or trail impractical;

3. The path or trail would cross an area affected by a special purpose district overlay and the path is incompatible with the purposes of the special purpose district;

4. The path or trail would cross topography where slopes exceed 30%; and/or

5. The path or trail would terminate at the urban growth boundary and extension to another public right-of-way is not part of an adopted plan.

C. Paths and trails are subject to the following Design Standards:

1. Design, including width, and construction of paths and trails shall be in accordance with the Public Works Standards.

2. Right-of-Way or Public Access Easement Width:

a. Public multi-use path easement width shall be a minimum of 20 feet, except public connector paths can be 15 feet.

b. Public trail easement width shall be a minimum of 10 feet.

c. Approved public access easement width may be reduced to a minimum 8-foot width with the approval of the Manager.

3. Where a path or trail intersects with a public street, a clear vision area is required per **Public Works Standards Section 6.04**. On-street parking shall be prohibited within 20 feet of the intersection of a path or trail and a public street to preserve safe sight distance.

4. Multi-Use Path lighting shall comply with the Public Works Standards.

5. Where the path or trail grade cannot be constructed to meet AASHTO and ODOT guidance without exceeding maximum slope allowances for ADA accessible facilities, the path or trail will be constructed as stairs for pedestrians. Based on local conditions, the Manager may require alternatives to stairs, including the use of switchbacks. If stairways are needed, they shall be at least 5 feet wide with handrails on both sides.

6. Buffering and screening shall be in accordance with the Buffering and Screening Requirements of **Section 9.0100**.

7. Pavement marking at crossings are required to meet the Public Works Standards.

8. Path and trail surfaces shall be designed to drain stormwater run-off to the side or sides of the path or trail.

9. Street Entry: Except at the end of a cul-de-sac, entry points shall align with safe pedestrian crossing points along adjacent streets and with adjacent street intersections.

A5.509 CONNECTOR PATHS

A. Public street connections are preferable to connector paths. Connector paths should only be used to ensure connectivity to nearby activities in areas where no other public street options are available. The City's paths and trails map reflects where some, but not all, connector paths are needed.

B. Connector Paths, sometimes called mid-block pedestrian connections, shall be provided in the following situations, except where exempted per **Section A5.508(B**):

1. Where maximum block lengths are exceeded.

2. To connect a development to an adjacent existing or planned public path or trail, existing or future public park, public open space or natural area, transit facility, school or commercial or employment area.

3. Between discontinuous street rights-of-way.

To provide direct connection of cul-de-sacs and dead-end streets to an adjacent street.

C. Connector paths are subject to the requirements of **Section A5.508**.

A5.510 UNDERGROUND UTILITIES

A. Purpose: Overhead utilities and associated poles clutter the streetscape and pose significant obstacles to pedestrian circulation, transit access, and the provision of pedestrian and transit facilities. Overhead utilities are also less resilient and more subject to damage in winter weather. Placement of utilities underground reduces these obstacles, reduces the likelihood of utility outages in winter, and provides an enhanced environment.

B. Applicability and Standards:

1. All developments required to obtain a development permit pursuant to **Section 11.0101** shall, at the development's own cost, install underground all new utility facilities needed for the development.

2. The following developments with overhead utilities along public street frontages shall, at the development's own cost, relocate underground all existing utility facilities along each of the development's public street frontages or provide payment-in-lieu of undergrounding in accordance with **Section A5.510(D)**.

a. Residential land divisions.

b. Developments required to obtain a Type II or greater development permit pursuant to **Section 11.0101** for construction of a new building.

c. Developments required to obtain a Type II or greater development permit pursuant to **Section 11.0101** for expansion of a building.

d. Tenant improvements which require Building Permits for initially occupying spaces in buildings.

Utility facilities to be undergrounded include, but are not limited to, electrical, communication facilities and lines connecting traffic signals, including all utility lines crossing the street along the development's public street frontages. Developers are still subject to undergrounding requirements of Fire Code.

These requirements do not apply to publicly funded capital improvements.

C. Exemptions:

1. The undergrounding requirement shall not apply to development permits obtained by utilities to establish, construct, maintain or terminate electrical power distribution lines and telephone and television cable transmission lines in the Floodplain Overlay District, Hillside and Geologic Risk Overlay District, Natural Resource Overlay District or where the utility would be exempt from

obtaining a development permit pursuant to **Section 11.0102**.

2. Electric power lines 50,000 volts and above, surface-mounted transformers, and other similar utility facilities that the Manager determines to be technically infeasible to underground are exempted from these requirements. In cases where a portion of the facilities are technically infeasible to underground, the remaining overhead facilities shall still be subject to undergrounding or Payment-in-lieu requirements.

D. Payment-in-lieu of Undergrounding:

1. Developers providing a Payment-in-lieu of undergrounding shall pay an amount set by City Council by separate resolution.

2. The funds collected in-lieu of undergrounding overhead utilities shall be used for undergrounding overhead utilities within the city at large.

A5.511 STREET TREES

Street trees located within public rights of way shall comply with standards provided in **Section 9.1000** and the Public Works Standards.