CHAPTER 1

1.000 GENERAL PUBLIC WORKS CONSIDERATIONS

1.010 Standard Specifications

Design detail, workmanship, and materials shall be in accordance with the current edition of the "Standard Specifications for Road, Bridge and Municipal Construction," the "APWA Amendments to Division One," and the "Standard Plans for Road, Bridge and Municipal Construction," all written and promulgated by the Washington State Chapter of the American Public Works Association and the Washington State Department of Transportation, except where these standards provide otherwise.

The following specifications shall be applicable when pertinent, when specifically cited in the standards, or when required by a higher funding authority.

- A. Conditions and standards as set forth in the City of Airway Heights Water System Plan, February, 1995 or most current edition.
- B. Conditions and standards as set forth in the City of Airway Heights most recent edition Comprehensive Sanitary Sewer Plan.
- C. Rules and regulations as adopted in the City of Airway Heights Municipal Code (AHMC).
- D. Criteria set forth in the Local Agency Guidelines as amended and approved by Washington State Department of Transportation.
- E. Most recent edition of City and County Design Standards for the Construction of Urban and Rural Arterial and Collector Roads Promulgated by the City Engineers Association of Washington.
- F. Conditions and standards as set forth in the WSDOT Design Manual as amended and approved by WSDOT.
- G. U.S. Department of Transportation Manual on Uniform Traffic Control Devices (MUTCD), as amended and approved by Washington State Department of Transportation.
- H. DOT Construction Manual as amended and approved by Washington State

Department of Transportation.

- I. Rules and regulations of the State Board of Health regarding public water supplies, as published by the State Department of Health, Washington Administrative Code, Chapter 246-290.
- J. Conditions and standards as set forth in the State of Washington Department of Ecology "Criteria for Sewage Works Design," most current edition.
- K. Conditions and standards as set forth by the State of Washington, Department of Labor and Industries.
- L. Criteria set forth in Transportation and Land Development by V. G. Stover and F. Koepke and the Institute of Transportation Engineers.
- M. Design criteria of federal agencies including Department of Housing and Urban Development and the Federal Housing Administration.
- N. Other specifications not listed above as may apply when required by the City of Airway Heights.

1.015 Shortened Designation

These Public Works Standards shall be cited routinely in the text as the "Standards."

1.020 Applicability

These standards shall govern all new construction and upgrading of facilities both in the right-of-way and on-site for transportation and transportation related facilities; storm drainage facilities; sewer and water improvements; building and zoning compliance; park and recreation; open-space facilities, landscaping, and designated planting strips.

1.025 Definitions and Terms

"AHMC" -- City of Airway Heights Municipal Code.

"Average Daily Traffic" or ADT -- The average number of vehicles passing a specified point during a 24-hour period. Annual average daily traffic (AADT) denotes that daily traffic that is averaged over one calendar year.

"Building Sewer" or "Side Sewer" -- Shall be that portion of the line beginning two feet outside the outer foundation wall to the right-of-way or easement line.

"Developer" -- Any person, firm, partnership, association, joint venture, or corporation or any other entity responsible for a given project.

"Development Plans" -- to be submitted for City review shall include the following (not all plans will be required for all developments, Technical Committee shall make determination at the predevelopment conference):

Site Plan: A plan that shows what the total development will look like when completed. The plan shall show property lines with dimensions and adjacent improvements or existing area features such as streets.

Layout Plan: A plan that dimensions the site features and provides appropriate construction notes and details. This plan is the horizontal layout for the site improvements.

Grading/Drainage Plan: Provides for the vertical layout of the site features, shows how the site is to be graded and shows the features required for the collection and disposal of stormwater. Appropriate notes and details may also be part of this plan sheet.

On-Site Utility Plan: Identifies the routes of sewer and water mains, and shows the appurtenances associated with each system including manholes, clean outs, valves, water meters, fire hydrants, backflow devices, etc. Details would include sewer profiles, meter vault, valve connections, etc.

Building Plans: Identifies the structure and materials along with plumbing, heating and cooling systems, sprinkler systems, electrical systems, etc.

Landscape Plans: Shows the landscape improvements and irrigation system.

Off-Site Utility Plans: Show the extension or upgrade of public water and sewer systems to provide sanitary sewer for the project or to provide adequate water to meet domestic or fire flow requirements.

Street Plans: Plan and profile drawings showing the public street improvements to meet project requirements. Plans identifying the proposed curb and gutter, sidewalks, street paving and stormwater system to the road improvements.

Details: These sheets show construction details for the above improvements which could not be shown on their respective plan sheets.

Development plan numbers 2, 3, 4, 7, 8, and 9 must be stamped by a licensed Professional Engineer. Development plan numbers 1, 5, 6, and 9 must be stamped by licensed professionals such as Architects, Electrical, Mechanical and Structural Engineers, and Landscape Architects. Plans will not be accepted by the City without the proper stamp.

"Public Works Director" -- The City of Airway Heights Public Works Director or his duly authorized representative.

"Easement" -- The right to use a defined area of property for specific purpose/purposes as set forth in the easement document, on a plat or short plat, or as required for purposes as set forth herein.

"Engineer" -- Any Washington State licensed professional engineer who represents the developer.

"ERU" -- The unit used to calculate sewer consumption. One Equivalent Residential Unit (ERU) equals 231 gallons of water consumed per day. For purposes of these standards, the term ERU shall be as follows:

Residential ERU Assignment

Single-family dwelling 1 ERU

Multi-family dwelling 1 ERU per dwelling

Trailer courts:

a) permanent mobile home parks 1 ERU per rental space provided sewer

service.

b) transient RV parks 0.33 ERU per RV site provided sewer

service.

Bed and Breakfast 1 ERU plus 1 ERU per 5 rooms.

Home Business (residential primary use) 1 ERU

Non-Residential

High schools, jr. high

schools and comm. colleges 1 ERU per 24 students

Elementary, preschools,

day cares 1 ERU per 54 students Churches 1 ERU per 15 seats 1 ERU additional - if parsonage

- if weekday child care or

church or school 1 ERU per 54 students additional

Hospitals - general 1 ERU per bed Convalescent/rest homes 1 ERU per two beds Hotels, motels 1 ERU per two rooms

- if quality restaurant 1 ERU per 8 seats, additional

Quality restaurants 1 ERU per 8 seats Fast food 1 ERU per 9 seats Tavern 1 ERU per 15 seats

Service Stations (w/o car wash) 2 ERUs

1.5 ERUs per stall Car Wash - Wand

- Follower **7.0 ERUs** - Tunnel 20 ERUs

Laundromats 1 ERU per machine

Commercial* 1 ERU per 1600 sq. ft. or less of interior floor space

Based on projected average

Light Industrial Waste Heavy Industrial Waste Based on projected average

"Half-Street" -- Street constructed along an edge of development utilizing half the regular width plus two feet over centerline of the right-of-way and permitted as an interim facility pending construction of the other half of the street by the adjacent owner.

"Interceptor" -- Shall be a sewer that receives flow from a number of main or trunk sewers, force mains, etc.

"Lateral" -- Shall be that section of the sewer line extending from the City's main to the right-of-way or easement line (i.e., to the building sewer) that has no other common sewers discharging into it.

"Lot of Street Frontage" -- The distance between the two points where the lot lines intersect the boundary of public street right-of-way.

"Parking Lot" -- A place where vehicles, including but not limited to, cars, motorcycles, motorhomes are left for a period of time in a particular location to directly serve the employees and or customers of the establishment.

^{*}Commercial shall include all classes not otherwise listed.

"Phasing" -- City may allow project phased for a specified time frame if a Performance Bond is posted for 110% of phased section of project provided that all engineering is accepted by the Technical Committee and that all other requirements have been met.

"Private Sewer" -- Shall be that portion of the system located on private property where no easements are granted to the City. Maintenance of a private sewer shall be the responsibility of the property owner(s).

"Private Street" -- Private vehicular access provided for by an access tract, easement, or other legal means to serve property that is privately owned and maintained.

"Project" -- General term encompassing all phases of the work to be performed and is synonymous to the term "improvement" or "work."

"Public Sewer" -- Shall be that portion of the system located within public rights-of-way or easements and which are operated and maintained by the City.

"Public Street" -- Publicly owned and maintained street.

"Right-of-Way" -- A general term denoting public land, property, or interest therein (e.g., an easement) acquired for or devoted to a public street, public access or public use.

"Road" -- Used interchangeably with street.

"Sewer Main" or "Trunk" -- Shall be a sewer that receives flow from one or more mains.

"Standards" -- City of Airway Heights Public Works Standards

"Storage Lot" -- A place where vehicles, including but not limited to, cars, motorcycles, motorhomes, mobile homes, boats, and their trailers are left in a state of being stored for a set period of time either for storage or sale.

"Street" -- Used interchangeably with road.

"Technical Review Committee" – Committee appointed by the mayor, made up of the City Planner, City Building Inspector, Public Works Director, Public Works Supervisor, and Fire Department Personnel, and or affected City departments.

"Utility" -- A company providing public service including, but not limited to, gas,

oil, electric power, street lighting, telephone, telegraph, water, sewer, or cable television, whether or not such company is privately owned or owned by a governmental entity.

1.030 Changes to Standards

From time to time, changes may be needed to add, delete, or modify the provisions of these Standards. These Standards may be changed upon recommendation of the Public Works Director and Technical Review Committee and acceptance by the City Council.

1.035 Severability

If any part of these City of Airway Heights Public Works Standards as established by ordinance shall be found to be in conflict or invalid, all other parts shall remain in effect.

1.040 Design Standards

- A. Detailed plans, prepared by a licensed engineer, must be submitted to the City for plan review and approval prior to the commencement of any construction. Applicant's engineer shall be a Professional Engineer, registered as such in the State of Washington. All plans must be signed and stamped by the applicant's engineer prior to submittal for plan review. Final plans shall be approved by the Technical Review Committee prior to the start of construction.
- B. Four folded copies of the plans are required to be submitted. All drawings shall be on 24" x 36" sheet size. Original sheets shall be good quality reproducible ink on mylars, bluelines or blacklines. Approved plan drawings shall become the property of the City of Airway Heights.
- C. profile drawings required proposed Plan and are for all transportation-related improvements; street illumination; traffic signalization; storm drainage facilities; and sewer and improvements. For specific minimum requirements, see the Plan Checklist on the following pages. On occasion, the scope of a project (i.e., relocating one hydrant) may not require engineered plans and can instead be handled via an Encroachment Permit. This option will be decided during Site Plan Review.

D. Specifications shall be required and submitted with the plans if General Notes do not adequately cover the project requirements.

1.050 Plan Review

All plans are to be submitted to the Building Department. Any necessary easements or dedications shall be submitted for review along with the plans. A cursory check of the plans against the plans checklist on the preceding pages will be made by City staff. If the plans meet the minimum checklist requirements as to context, they will be routed to the appropriate City staff. All plan review fees must be paid, or arrangements made, before the engineering plan review process will begin. Agreement to pay fees shall be signed prior to plan review.

The initial turnaround time for the first review of plans submitted is normally two weeks. The engineer is then requested to submit the original drawings for approval or is notified of additional required revisions. Additional review time will be required if revisions are necessary.

If the City's comments are not adequately addressed at the second review, a third submittal is required and additional fees for review of a third submittal shall be levied, as established by resolution of the City Council. "Third Submittal" shall mean the third and any subsequent submittal of construction drawings, specifications, drainage calculations, and/or other information that requires additional plan checking.

Approved plans will be returned to the Engineer only after the construction inspection fees have been paid.

Plans that have been approved more than 180 days before construction begins (i.e., a preconstruction meeting scheduled and inspection fees paid) shall be subject to an additional review based on the rate as established for third submittal.

1.055 Construction Control

Work performed for the construction or improvement of City roads and utilities whether by or for a private developer, by City employees, or by a City contractor, shall be done to the satisfaction of the City and in accordance with approved plans. It is emphasized that no work shall be started until such plans are approved or a performance bond posted @ 110% of project cost. Any revision to such plans shall be approved by the City before being implemented. Failure to receive the City's approval can result in removal or modification of construction at the contractor or developer's expense to bring it into conformance with approved plans.

1.060 Inspection

All work performed within the public right-of-way or easements, or as described in these standards, whether by or for a private developer, by City employees, or by a City contractor, shall be done to the satisfaction of the City and in accordance with the WSDOT/APWA Standard Specifications, any approved plans and these standards. Unless otherwise approved, any revision to construction plans must be approved by the City Technical Review Committee before being implemented.

It is the responsibility of the developer, contractor, or their agents to notify the City in advance of the commencement of any authorized work. A preconstruction meeting and/or field review shall be required before the commencement of work. Inspection fees shall be paid, or arrangements made to pay, on or before the preconstruction meeting, or at the time of final plan approval, whichever is sooner. Any necessary easements or dedications are required before plan approval.

It is the responsibility of the developer, contractor or their agents to have an approved stamped set of plans and any necessary permits on the job site whenever work is being accomplished.

The City shall have authority to enforce these standards as well as other referenced or pertinent specifications. The City will appoint project engineers, assistants and inspectors as necessary to inspect the work and they will exercise such authority as the Public Works Director may delegate.

All specific inspections, test measurements or actions required of all work and materials are set forth in their respective chapters herein. Testing and inspection costs shall be completed at the developer's or contractor's expense based on the established rates set forth in resolution form.

Failure to comply with the provisions of these standards may result in stop work orders, removal of work accomplished, or other penalties as established by ordinance (AHMC 12.10.220).

A project is considered final when a letter of acceptance is issued by the City to the party responsible for the project.

No water meters shall be released for any lot or building served by a project until final acceptance has been granted, unless specifically approved in writing by the Public Works Director.

1.070 Fees

Fees, charges or bonding requirements shall be as established by the City Council by the passage of a resolution adopting a fee, charge, and bonding requirement schedule except where specifically set forth in the City of Airway Heights Municipal Code (AHMC). A copy of the fee schedule can be found in Appendix A. It is the applicant's responsibility to verify that the fees in the appendix are current.

All plan review fees are due, or arrangements made, upon submittal of plans for review.

All inspection fees are due, or arrangements made, before final, approved plans are released.

In addition, there are various miscellaneous service and connection fees and charges that may apply. We strongly urge all applicants to request an estimate of these fees and charges from the City's Public Works Department as soon as practical.

1.080 Permits

Before any person, firm or corporation shall commence or permit any other person, firm or corporation to commence any work to grade, pave, level, alter, construct, repair, remove, excavate or place any pavement, sidewalk, crosswalk, curb, driveway, gutter, drain, sewer, water, conduit, tank, vault, street banner or any other structure, utility or improvement located over, under or upon any public right-of-way or easement in the City of Airway Heights, or place any structure, building, barricade, material, earth, gravel, rock, debris or any other material or thing tending to obstruct, damage, disturb, occupy, or interfere with the free use

thereof or any improvement situated therein, or cause a dangerous condition, an Encroachment Permit shall be obtained. A separate permit shall be obtained for each separate project.

In the case of work contracted for by the Public Works Department, the signing of the contract shall constitute an Encroachment Permit.

Much of the work covered under these standards will require multiple permit authority review and approvals. Several types of permits and approvals require prior approval from the authority before a building or other permit can be issued. Any questions regarding information about permits, approvals and agreements should be directed to the appropriate departments. The following general categories describe some of the permits, approvals and agreements, along with issuing permit/code authority identified in parentheses:

A. Environmental Review

For most projects, a SEPA Environmental Checklist must be completed by the applicant and submitted along with plans, specifications, and other information when approval or permits are being requested for a project. Environmental review is conducted by the Planning Director, who is the SEPA responsible official (AHMC 18.04).

B. Construction Permits

- 1. **Clearing and Grading Permit** (Public Works Dept.). A Clearing and Grading Permit is required for removal of vegetation using any mechanical device such as a tractor, grader, or dozer. Removal of more than 25% of vegetation from a site also requires a Clearing and Grading Permit.
- 2. **Building Permit** (Building Division). A Building Permit is required for most all construction work including alteration, repairs and demolition (AHMC 15.08.020).
- 3. **Approach Permit** (Public Works Dept.). An Approach Permit is required for connection of a driveway or street to an existing City Right of Way. This permit is required for each lot of a subdivision, newly proposed private and public streets, and any connection to the City Right of Ways.
- 4. **Encroachment Permit** (Public Works Dept.) An Encroachment permit, Roadway or Right of Way Excavation Permit is required for any work within the right-of-way as outlined at the beginning of this

Chapter and as outlined in AHMC 12.10. Such work may include utilities work, lane closures, diversion of traffic flow, driveways, curbs, sidewalks, and haul routes. Permission to temporarily close a public right of way, streets and roads, or portion thereof, for construction activities or special events is obtained through the Encroachment Permit (AHMC 12.10.010).

C. Approvals and Other Permits

There are several other permits or approvals which may be required and referred to in these Standards: Site Plan Review; plat and short plat approvals; Certificate of Occupancy; and others may apply.

In addition, there are several other City approvals (land use) which may have to be obtained prior to the above listed permits and which may affect the Standards as contained in this document: Variance or Conditional Use; Planned Residential Development; and Planned Unit Development.

D. Landscaping Requirements

- 1. General. Landscaping is required for all new buildings and additions over 500 square feet (46.5 m²) as defined in Section 805 of the Uniform Zoning Code. Said landscaping shall be completed with one year from the date of occupancy of the building with the posting of a performance bond and or approval of the Planning Department
- 2. Front Yards. Front yards required by Section 805.2 (UZC), shall be completely landscaped, except for those areas occupied by access driveways, walls, and structures.
- 3. Street-Side Side Yards. All street-side side yards shall be completely landscaped, except for those areas occupied by utilities, access driveways, walls and structures (Section 805.3 UZC).
- 4. Maintenance. All live landscaping required by Section 805.4(UZC) shall be properly maintained. Property owners shall keep the required planting area maintained pursuant to 17.23.140 of AHMC.

1.090 Bonding

Bonds or other allowable securities may be required by the City to guarantee the

performance or maintenance of required and proposed work. The type and amount of security shall be per code, or, if not specified, be at the discretion of the City. Types of securities include but are not limited to a bond with a surety qualified to do a bonding business in this state, a cash deposit, an assigned savings account, or a set aside letter. (Copies of City of Airway Heights standard forms are included in Appendix B.)

The following are the most frequent bonds required:

- A. **Performance Bond**. No building permit shall be issued until all public improvements are completed and final acceptance granted or, with the approval of the Public Works Director, a performance bond (or other security as outlined above) is posted with the City in an amount equal to 100 percent of the cost of the public works improvements is posted with the City. No certificate of occupancy shall be issued until all public works improvements are completed and approved. (AHMC 12.10.060).
- B. **Maintenance bond**. Prior to final Public Works approval, the permittee or the contractor for the permittee shall post with the city a maintenance bond for the guarantee of the public works improvements in an amount equal to 15 percent of the estimated cost of the improvements for a period of two years after the completed job is accepted by the City. Release of bond will occur two years from the date of City acceptance if all maintenance has been accepted by the City (AHMC 12.10.60).

1.100 Utility Locations

A. Utilities as defined in Section 1.025, within a right-of-way or easement on new roads or in roadways where existing utilities are not in conflict, shall be located as shown in typical sections on Drawings 2-03 through 2-07 (located at the end of Chapter 2). Where existing utilities are in place, new utilities shall conform to these standards as nearly as practical and yet be compatible with the existing installations. Deviations of location shall be approved by the Public Works Director. Existing utilities shall be shown using the best information available. This verification may require exploration/excavation (potholing) if utilities are in conflict with proposed design.

The contractor/developer shall be responsible for calling One-Call-Locate 1-509-456-8000 for utility locates in conjunction with their project before plans are submitted for review by the Public Works Department.

B. All new utilities other than those located on private property shall be

installed underground by the utility owning said facility and new and existing facilities shall comply with provisions as set forth in AHMC Chapter 13.08, and provisions as set forth in franchise agreements between the City and the utility. Utilities converted from overhead to underground on existing roadways may be located within the right-of-way.

C. An Encroachment Permit is required of any utility, except City facilities, for any work done within the right-of-way and shall comply with all provisions as set forth in AHMC Chapter 13.08, and Section 1.080 of these standards.

1.110 Easements

- A. Where public utilities and/or their conveyance systems cross private lands, an easement must be granted to the City. The Public Works Department will generally process, record and file all easements. If the property is platted the easement may be conveyed when the short plat or final plat is filed. All easements not shown on a plat must be prepared by a licensed land surveyor or engineering firm capable of performing such work.
- B. Easement widths shall be 15 feet for a single utility and 20 feet for dual utilities. Construction easements shall be 30 feet minimum in total width, including the permanent easement. When trench depths dictate or where pipe diameter or vault widths exceed five feet, a wider easement may be required by the Public Works Director.
- C. Easements are required to be submitted in draft, unsigned for review and approval prior to plan approval. Signed copies are required prior to plan approval. Any change in design which places an amenity, e.g., water, sewer, sidewalk, etc., outside of the easement may necessitate stopping of construction until plans and easements can be resubmitted and approved. Plan review fee shall be based on the rate as established for third submittal fee.

A copy of the Easement Preparation Standards can be found in Appendix C.

1.120 Latecomers Agreements

Any person who constructs a water or sewer main extension or facility at the direction of the City in excess of that which is required to meet minimum

standards, developer needs, or which meets minimum standards and will benefit properties abutting the new main, may, with the approval of the Public Works Director, enter into a contract with the City which will allow the developer to be reimbursed for that portion of the construction cost that benefits the adjoining properties and/or is in excess of the minimum standard. This contract is commonly termed a "Latecomers Agreement." The format for a Latecomers Agreement must be submitted for review and approval prior to plan approval to be considered. Latecomers Agreements submitted after plan approval will not be accepted.

The developer is responsible for initiating, executing and, after City approval, filing the latecomers agreement. The agreement shall include a list of those properties which will benefit from the extension, a map outlining and designating these properties, legal descriptions as required by the City, and backup data supporting the costs submitted. The City will collect the latecomers fee from persons wanting to connect to the water/sewer extension or benefiting from a facility and subsequently see that the developer receives the payment.

1.130 Utility Extension

A. Extension of City water and sewer utilities outside the City limits is possible contingent upon approval of the City Council. The utility lines that are requested to be extended must service a property that is within the City's Urban Planning Area.

Applicant must prepare a letter describing the location of property, amount of sewer or water capacity needed, along with a vicinity map to the City Administrator. The Administrator will forward to the City Council with staff recommendation for approval or denial. If the Council approves the request, the request will then be forwarded to the Spokane County Boundary Review Board for approval.

Applicant is responsible to obtain all necessary construction permits, submit the required SEPA documents, and any other permits which may be required by Spokane County, and state or Federal agencies including the Department of Transportation, Department of Ecology, Department of Health, and Department of Fisheries or Wildlife.

Please see Appendix B for a copy of the City of Airway Heights Standard Utility Extension Agreement and Appendix D for a copy of the City of Airway Heights Urban Planning Area map.

B. Utility mains shall be extended to and through the extremes of the

property being developed for loop closures and/or future development as determined by the City.

1.135 Annexation Requirement

Owners of properties lying outside of the current City limits, but within the City Vision planning boundaries, must legally commit their property to eventual annexation prior to being served by the City's utility system (City of Airway Heights Standard Extension Agreement).

These annexation requirements will be applied to all extensions of the City's utility to areas outside the City limits. Anyone who desires to extend the City's utility system should contact the Department of Planning for specific annexation requirements.

1.140 Traffic Control

A. The developer/contractor shall be responsible for interim traffic control during construction on or along traveled roadways. Traffic control shall follow the guidelines of the WSDOT/APWA Standard Specifications. All barricades, signs and flagging shall conform to the requirements of the MUTCD.

City utilities constructed within Spokane County right-of-way shall follow all traffic control requirements as set forth by Spokane County Public Works Department and MUTCD.

Signs must be legible and visible and should be removed at the end of each work day if not applicable after construction hours.

- В. When road closures and detours cannot be avoided the Public Works Department contractor/developer shall notify Construction Inspector. The City may require a detour plan to be prepared, submitted and approved prior to closing any portion of a City roadway and distributed at least 24 hours in advance to the Airway Heights Fire and Police Departments.
- C. An Encroachment Permit may be required before work in the road can commence. See requirements in section 1.080 and 1.100 and contact the Public Works Department for specific permit information.

1.150 Call Before You Dig

All developers/contractors are responsible for timely notification of all utilities in advance of any construction in right-of-way or utility easements. The utilities one-call Underground Location Center phone number is 1-509-456-8000.