

Section 1 – General Public Works Considerations

1.01.000 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. (BMC 12.20.010)

1.02.000 ADDITIONAL SPECIFICATIONS

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 Blaine Comprehensive Plan.
- B. Conditions and standards as set forth in the City of Blaine Water System Comprehensive Plan most current edition.
- C. Conditions and standards as set forth in the City of Blaine Sanitary Sewer Comprehensive Plan.
- D. Conditions and standards as set forth in the City of Blaine Stormwater Management Plan.
- E. Conditions and standards as set forth in the City of Blaine Transportation Element of the Comprehensive Plan.
- F. Conditions and standards as set forth in the City of Blaine Electrical System Comprehensive Plan.
- G. Conditions and standards as set forth in the City of Blaine Parks Comprehensive Plan
- H. Rules and regulations as adopted in the Blaine Municipal Code.
- I. BLANK
- J. Criteria set forth in the Local Agency Guidelines as amended and approved by Washington State Department of Transportation.
- K. BLANK
- L. Conditions and standards as set forth in the City of Blaine "Down Town Development Plan".
- M. Conditions and standards as set forth in the WSDOT Design Manual as amended and approved by WSDOT.
- N. U.S. Depart

Section 1 – General Public Works Considerations

ment of Transportation Manual on Uniform Traffic Control Devices (MUTCD), as amended and approved by Washington State Department of Transportation.

- O. DOT Construction Manual as amended and approved by Washington State Department of Transportation.
- P. Rules and regulations of the State Board of Health regarding public water supplies, as published by the State Department of Health.
- Q. Conditions and standards as set forth in the State of Washington Department of Ecology "Criteria for Sewage Works Design", most current edition.
- R. Conditions and standards as set forth by the State of Washington, Department of Labor and Industries.
- S. Design criteria of federal agencies including Department of Housing and Urban Development and the Federal Housing Administration.
- T. Other specifications not listed above as may apply when required by the City of Blaine.

1.03.000 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; and park, recreation, and open-space facilities.

These City of Blaine Development Guidelines and Public Works Standards shall be cited routinely in the text as the "Standards"

1.04.000 DEFINITIONS AND TERMS

"Average Daily Traffic" or ADT – means 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" - means the extension from the building drain to the public sewer or other place of disposal. (BMC 13.08.040)

"City Engineer" - The Public Works Director or his duly authorized representative.

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

"Director of Public Works" - the city manager as prescribed by ordinance or his authorized deputy, agent or representative responsible for the sewage works and/or of water pollution control of the city (BMC 13.08.060).

"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.

Section 1 – General Public Works Considerations

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

“ERU” - the unit used to calculate water and sewer impacts. Each single family residence shall equal one Equivalent Residential Unit. For purposes of these standards, the term ERU shall be as follows:

1. Single Family residence 1 ERU/unit.
2. Duplex 2 ERU/unit
3. For residential multi-family dwellings of three or more and all other uses not covered by 1 or 2 above, the size of the water meter shall determine the ERU count. A five-eighths inch by three-quarter inch meter size shall equal one ERU for purposes of computing nonresidential ERU counts. ERUs for all other meter sizes for nonresidential uses shall be determined based on industry standard ratings of flow factors as compared to a five-eighths inch by three-quarter inch meter as listed below

Meter Size	Flow Factor ERUs	Meter Size	Flow Factor ERUs
5/8" or 3/4"	1.0	2"	8.0
1"	2.5	3"	16.0
1.5"	5.0	4"	25.0

(BMC 13.08.530 & BMC 13.14.000)

“ Three Quarter Street” - (BMC 17.06.400 Three Quarter standard street) Three Quarter standard street means the one half of the full standard street, defined in BMC 17.06.200, abutting on the developer’s property plus a ten foot surfaced driving lane.

“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., the building sewer) that has no other common sewers discharging into it. (BMC 13.08.040)

“BMC” - Blaine Municipal Code.

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

“Plans” - the plans, profiles, cross sections, elevations, details, and supplementary specifications, signed by a licensed professional engineer and approved by the City

Section 1 – General Public Works Considerations

Engineer, which show the location, character, dimensions, and details of the work to be performed.

“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, 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” - means a sewer in which all owners of abutting properties have equal rights, and which is controlled by public authority. (BMC 13.08.130)

“Public Street” (BMC 17.06.380) - Street means a dedicated and accepted public right-of-way for vehicular traffic. “Street” includes “road”, “drive” or “boulevard”.

“Right-of-Way” (BMC 17.06.350) - Right-of-way or R/W means a strip of land dedicated to and maintained by the city for street and utility purposes and on a portion of which a street is built.

“Road” - Used interchangeably with street.

“Sewer Main” or “Trunk” - shall be a sewer that receives flow from one or more mains.

“Street” - used interchangeably with road.

“Use of Pronoun” - As used herein, the singular shall include the plural, and the plural the singular; any masculine pronoun shall include the feminine or neuter gender and vice versa; and the term “person” includes natural person or persons, firm, co-partnership, corporation or association, or combination thereof.

“Utility” - A company providing public service including, but not limited to, gas, oil, electric power, street lighting, telephone, telegraph, water, sewer, cable television, or communication system, whether or not such company is privately owned or owned by a governmental entity.

1.05.000 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 and, upon approval of the Public Works Director, shall become effective and shall be incorporated into the existing provisions.

1.06.000 SEVERABILITY

If any part of these City of Blaine Development Guidelines as established by ordinance shall be found invalid, all other parts shall remain in effect.

Section 1 – General Public Works Considerations

1.07.000 DESIGN STANDARDS

- A. Detailed plans, prepared by a licensed engineer, must be submitted to the City for plan review and approved 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 Public Works Director prior to the start of construction.
- B. Three bound copies of the plans are required to be submitted along with a completed Plan Review Application form and a "Request for Services" form. All drawings shall be on 24" x 36" sheet size. Original sheets shall be good quality reproducible ink on mylar. (Ink on velum is acceptable when CAD as-built drawings will be replotted on mylar). Original drawings of the approved plan shall become the property of the City of Blaine. A reproducible set of the drawings will be returned to the applicant's engineer.
- C. Plans and profile drawings are required for all proposed transportation-related improvements; street illumination; traffic signalization; storm drainage facilities; sewer and water improvements and electrical system 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 a Right-of-Way Use 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.
- E. Upon completion of the project and prior to acceptance of any public facilities a complete set of as-built plans of the facility shall be submitted for review and acceptance. All drawings shall be on 24" x 36" sheet size. One set of As-built originals shall be supplied as good quality reproducible ink on mylar. One set of As-built prints and one set of digital media shall be supplied in addition.

1.08.000 PLAN CHECKLIST

STANDARD ITEMS: WATER, SANITARY SEWER,

STORM SEWER, STREET, LIGHTING, AND SIGNALS

- Engineers Estimate in "Deed of Conveyance" format
- Vicinity Map
- Legend (APWA Standard Symbols)
- North Arrow
- Scale Bar - 1" = 20' unless previously requested & approved.

Section 1 – General Public Works Considerations

- Datum - Bench Mark Elevation and Location (on all sheets where elevations are referenced)
- Title Block:
- Title:
- Design By:
- Drawn By:
- Date:
- Checked By:
- City Signature Approval Block (2½"x4" space in the lower right hand corner of each plan sheet)
- Sheet Number of Total Sheets:
- Section, Township and Range (every plan/profile sheet)
- Engineers Stamp (signed and dated)
- Project Title (cover sheet)
- Utility System Composite Map (showing all proposed utilities on one drawing)
- Revision Block

PLAN PORTION STANDARD ITEMS

- Centerline and Stations
- Edge of Pavement and Width
- Right-of-Way and Width
- Proposed Survey Monuments Locations and Details
- Sidewalk and Width
- Roadway Sections
- Existing Utilities (above and below ground)
- Adjacent Property Lines, Ownership, Parcel Number, and Street Address
- Identify Street Names, Right-of-Way, Lots
- Identify Match Existing Sheet Numbers and Stations

Section 1 – General Public Works Considerations

- Easements, Width and Type
- Define Survey Baseline
- Stations for Structures
- Flow Direction Arrows
- Areas of potential utility conflict.

PROFILE PORTION STANDARD ITEMS

- Profile Grades (decimal FT. /FT.)
- Existing Ground
- Scale (horizontal and vertical)
- Stationing
- Vertical Elevation Increments each side of each sheet.
- Existing Utilities (if available)
- Areas of potential utility conflict.

Misc.

- Detail Sheet
- General Notes

SANITARY SEWER

System Map: 1" = 300' showing existing and proposed mains, structures and lift stations if required.

Plan View.-

- Manhole
- Station Shown at Each Manhole (watch spacing)
- Manholes Numbered
- Manhole Type Designation
- Flow Direction (with arrow on pipe)

Section 1 – General Public Works Considerations

- Depth at Property Line and Distance from Downhill Manhole for Side Sewer
- Distance from Water Lines
- Service to Each Lot
- Service Cleanout locations

Profile View.

- Manholes Numbered
- Invert Elevation Showing Direction, In and Out
- Rim Elevation
- Grades shown (decimal form FT. /FT.) (Minimum slopes)
- Type of Pipe
- Size of Pipe
- Length of Pipe (in L.F CL of manhole to CL of manhole.)
- Existing Utilities Shown

Misc.

- Detail Sheet
- Sewer General Notes

WATER

System Map (1"=300') showing existing and proposed mains with line size and type, valves, and hydrants, in addition to below

Plan View.

- Fire Hydrants (BMC 13.20, NFPA 24 & NFPA 291)
- Blow-off (at end of line)
- Vacuum and Air Release Valves When Required
- Tees, Crosses, Elbows, Adapters and Valves need coupling type,

Section 1 – General Public Works Considerations

- Meter Locations
- Valves (2 each tee min., 3 each cross min.)
- Fire Department Connection
- Thrust Blocking required at all Fittings Including In-Line Valves
- Distance from Sewer
- Service to Each Lot (include irrigation service)
- Fire sprinkler connection

Profile View.

- Fixtures (tees, crosses, hydrants)
- Valves and Couplers
- Type of Pipe
- Size of Water main
- Length of water main in L.F.
- Grades (Engineered Design Grade to F.L.)

Misc.

- Detail Sheet
- Water General Notes

STORM SEWER

Drainage and Erosion Control Plan Report

- Cover Sheet
- Table of Contents
- Section 1 - Proposed Project Description
- Section 2 - Existing Conditions
- Section 3 - Infiltration Rates/Soils Report

Section 1 – General Public Works Considerations

- Section 4 - Wells
- Section 5 - Fuel Tanks
- Section 6 - Sub-Basin Description
- Section 7 - Analysis of the 100-Year Flood
- Section 8 - Aesthetic Considerations for Facilities
- Section 9 - Downstream Analysis
- Section 10 - Covenants, Dedications, Easements

Erosion Control Plan Report

- Section 1 - Construction Sequence and Procedure
- Section 2 - Trapping Sediment
- Section 3 - Permanent Erosion Control and Site Restoration
- Section 4 - Geotechnical Analysis and Report
- Section 5 - Inspection Sequence

Drawings and Specifications

- Vicinity map
- Project Boundaries
- Sub-Basin Boundaries
- Off-Site Area Tributary to Project
- Contours
- Major Drainage Features
- Flow Path

Site Map

- Existing Topography at Least 50 Feet Beyond Site Boundaries
- Finished Grades
- Existing Structures within 100 Feet of Project Boundary

Section 1 – General Public Works Considerations

- Utilities
- Easements, Both Existing and Proposed
- Environmentally Sensitive Areas
- 100 Year Flood Plain Boundary
- Existing and Proposed Wells within 1,200 feet of Proposed Retention Facility
- Existing and Proposed Fuel Tanks
- Existing and Proposed On-Site Sanitary Systems within 100 Feet of
- Detention/Retention Facilities
- Proposed Structures Including Roads and Parking Surfaces
- Lot Dimensions and Areas
- Proposed Drainage Facilities and Sufficient Cross-Sections and Details to Build

Plan View - Conveyance System

- Station and Number at each Manhole/Catch Basin
- Manhole/Catch Basin Type and Size
- Manhole/Catch Basin Rim Elevation
- Flow Direction with Arrow on Pipe/Channel
- Type and Size of Pipe
- Length of Pipe in Lineal Feet

Profile View - Conveyance System

- Station and Number at each Manhole/Catch Basin
- Rim Elevation
- Invert In and Out
- Length of Pipe in Lineal Feet
- Grades (FT/FT)
- Design Velocity

Section 1 – General Public Works Considerations

Work Map

- Unit Areas (including Off-Site Contributing Areas)
- Percentage Impervious
- Average Slope
- Estimated Ultimate Infiltration Rate
- Length, Slope, Inverts Overland Flow Paths and Distances
- Soil Types
- Spot Water Surface Elevations, Discharges and Velocities
- Design Event

Erosion Control Drawing

- Soil Types
- Locations of Soil Pits and Infiltration Tests Construction
- Entrance Detail
- Silt Fences and Traps
- Mulching and Vegetation Plan
- Clearing and Grubbing Limits
- Existing and Finished Grade
- Details and Locations of all BMPs Recommended
- Location and Details of Temporary Sediment Ponds

Maintenance Report

- Required Type and Frequency of long term Maintenance
- Identification of Responsible Maintenance Organization
- Frequency of Sediment Removal
- Cleaning of Catch Basins

Section 1 – General Public Works Considerations

- Vegetation Control
- Annual Cost Estimate of Maintenance
- Construction Inspection Report

Misc.

- Detail Sheet
- Storm General Notes

STREET

Plan View.

- Flow Direction Arrows at Curb Returns Showing Grade
- Spot Elevations on Curb Returns
- Station PC, PT, Pi and Intersections
- Curve Information Delta, Radius, Length and Tangent
- BCR and ECR (Begin Curb Radius, End Curb Radius)
- Identify All Field Design Situations
- Typical Sections
- Pavement Marking Details With Station and Offset
- Sidewalks
- Driveway Entrances
 - Station
 - Width, Material (AC, PCC)
 - Driveway Type
 - Handicap Ramps - Detail and Type

Profile View-

- Vertical Information VPI, BVC, EVC, AP, Low Point, High Point
- Show Grades in Decimal Form with (+ Or -) Slope

Section 1 – General Public Works Considerations

- Super Elevated Roadways
- Detail - Show Transitions
- Special Detail Showing Gutter Flowing Adequately

Misc.

- Detail Sheet
- Street General Notes
- AASHTO Street Design Worksheet, With Soils Report, if Applicable

ILLUMINATION AND SIGNALS

Lighting

- Station and Offset to Fixtures
- Pole Type, Including Manufacturer and Model Number
- Mounting Height, Arm Length, Anchor Bolt Size and Pattern
- Power Source
- Wire Size, Type, Conduit
- Line Loss Calculations
- Luminaire Type, Lamp Wattage
- Location of Service Disconnects (5% Max. Voltage Drop from Source to Farthest Luminaire)
- J-Box Location and Connections (include station and offset)
- Fusing

Signals (Follow WSDOT Specs Unless Otherwise Required by the City)

- Station and Offset to Signal Base, Cabinets, Ped. Lead, Loops, etc.
- Wiring Schedule
- Signal Heads and Mounting Assembly
- Detection Loops
- Opticom

Section 1 – General Public Works Considerations

- Control Cabinet, Size and Layout
- Power Source
- Conduit
- Wire Size and Type
- Construction Notes
- J-Box Schedule
- Pedestrian Signal Type with Push Button Controller Type, Configuration, and Wiring Schematic
- Detail Sheet
- Lighting General Notes
- Line Loss Calculations

MISCELLANEOUS

- Easements and/or Dedication Deeds
- Contract Documents/Specifications
- Sheet Index (on title sheet if required)
- Field Verify Note on DWG.
- Note to “Expose Connection Points and Verify Fittings 48 Hours Prior To Distributing Shut-Down Notices”
- Call before You Dig Note
- Signing - Temporary And Permanent
- Channelization
- Location of Cluster Mailboxes
- Location of School Bus (and/or WTA) Bus Shelter/Pad, and Turnouts

Section 1 – General Public Works Considerations

1.09.000 PLAN REVIEW

All plans are to be submitted to the City Engineering Department along with a completed Plan Review Application form and a signed City of Blaine Customer Service Request form. 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 and the plan review process begins.

The initial turnaround time for the first review of plans submitted is normally two weeks, depending on the scope of the project. 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 plans require a third submittal, additional fees will 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 pertaining to the construction of city facilities.

Approved plans will be returned to the Engineer only after the plan checking fees have been paid.

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

1.10.000 CONSTRUCTION CONTROL

Work performed for the construction or improvement of City roads and utilities whether by or for a private developer, by City forces, 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. 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's or developer's expense to bring it into conformance with approved plans.

1.11.000 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 forces, 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 before being implemented.

Section 1 – General Public Works Considerations

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 on or before the preconstruction meeting. 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 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 City Engineer may delegate.

All specific inspections, test measurements or actions required of all work and materials are set forth in their respective chapters herein. Tests shall be performed at the developer's or contractor's expense.

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.

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

No water or electric meters shall be released for any lot or building served by a project until final acceptance has been granted.

1.12.000 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 Blaine Municipal Code (BMC). The city council shall further set the dollar penalty for failure to pay said fee or charge in a timely manner by passage of such resolution. A copy of the fee schedule can be found in the appendix. It is the applicant's responsibility to verify that the fees in the appendix are current.

1.12.010 Inspection Fees

Inspection fees are included with the original plan review fee. Additional Inspection Fees may be charged if inefficient contractor operations result in substantial delays.

1.12.020 Additional Fees

In addition, there may be various miscellaneous service and connection fees and charges. The applicant is strongly urged to request an estimate of these fees and

Section 1 – General Public Works Considerations

charges by completing a Utility Service Request for the proposed Development, available from the Building Official.

1.13.000 PERMITS

A Right-of-Way Use Permit shall be obtained 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 Blaine, 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 situate therein, or cause a dangerous condition. A separate permit shall be obtained for each separate project.

In the case of work contracted for by the Department of Public Works, the signing of the contract shall constitute a Right-of-Way Use 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:

1.13.010 Environmental Review

For most projects, an 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. The Department of Community and Economic Development conducts the Environmental Review and makes a SEPA Threshold Determination for the City.

1.13.020 Construction Permits

1. Land Clearing Permit (The Department of Community and Economic Development). A Land Clearing Permit is required for all significant tree alterations
2. Building Permit (Building Division of the Department of Community and Economic Development). A Building Permit is required for most all construction work including alteration, repairs and demolition.
3. Right-of-Way Use Permit (Public Works Department). A Right-of-Way Use Permit is required for any work within the right-of-way as outlined at the beginning of this Chapter. Such work may include utilities work, lane closures, driveways,

Section 1 – General Public Works Considerations

curbs, sidewalks, and haul routes. Permission to temporarily close a street or portion thereof for construction activities is obtained through the Right-of-Way Use Permit.

1.13.030 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; and Certificate of Occupancy.

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: Zoning Revision; Conditional use; Variances; Planned Unit Development; and Shoreline Substantial Development Permit.

1.14.000 BONDING

Bonds or other allowable securities may be required by the City to guarantee the performance of or maintenance of required 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 letter of credit or real property.

The following are the most frequent bonds required:

1.14.010 Performance Bond

No building permit shall be issued until all public improvements are completed and final acceptance granted or, with the approval of the City Engineer, a performance bond as outlined above posted with the City in an amount equal to 150 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 unless otherwise allowed by the City Engineer. (BMC 17.16.030)

1.14.020 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 10 percent of the estimated cost of the improvements for a period of one year after the completed job is accepted by the City. Release of bond will occur one year from the date of City acceptance if all maintenance has been accepted by the City. (BMC 17.16.030)

Section 1 – General Public Works Considerations

1.15.000 UTILITY LOCATIONS

1.15.010 Utilities within a right-of-way

Utilities as defined in Chapter 3, 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 drawing 4-10. 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 City Engineer. 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 utility locates in conjunction with their project until final Public Works approval is given.

1.15.020 Compliance

All new utilities other than those located on private property shall comply with provisions as set forth in BMC 13.04 for water, BMC 13.08 for sewer, BMC 13.16 for Electrical, and provisions as set forth in franchise or use agreements between the City and the utility.

Utilities converted from overhead to underground on existing roadways may be located within the right-of-way, subject to the approval of the City Engineer.

1.15.030 Right-of-Way Use Permit

A Right-of-Way Use Permit is required of any utility for any work done within the right-of-way and shall comply with all provisions as set forth in BMC 12.04.010 and Chapter 3 of these standards.

1.16.000 EASEMENTS

1.16.010 Required

Where public utilities and/or their conveyance systems cross private lands, an easement must be granted to the City. The Engineering 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.

1.16.020 Width

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 four feet, a wider easement may be required by the City Engineer.

Section 1 – General Public Works Considerations

1.16.030 Approval

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, i.e., 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. Easements will be filed by the city upon satisfactory completion of the work.

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

1.17.000 LATECOMERS AGREEMENTS

Any person who constructs a water, sewer, electrical, storm drainage or street extension at the direction of the City, in excess of that which is required to meet minimum standards or which meets minimum standards and will benefit properties abutting the new main, may, with the approval of the City Engineer, 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 and executing and, after City approval, paying the filing fees for the latecomer's 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 latecomer's fee from persons wanting to connect to the water or sewer extension and subsequently see that the developer receives appropriate payment. (BMC 13.08.513 & BMC 13.04.150)

1.18.000 UTILITY EXTENSION

1.18.010 Process

Anyone who wishes to extend any City utility should contact the Department of Public Works for an Extension/Connection Fee Estimate and any special extension requirements.

1.18.020 Extents

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.

Section 1 – General Public Works Considerations

1.19.000 ANNEXATION REQUIREMENT

Owners of properties lying outside of but not contiguous to the City must legally commit their property to eventual annexation prior to being served by the City's utility system.

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 Public Works for specific annexation requirements.

1.20.000 TRAFFIC CONTROL

1.20.010 Responsibility

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 Whatcom County right-of-way shall follow all traffic control requirements as set forth by Whatcom County Department of Public Works 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.

1.20.020 Notification

When road closures and detours cannot be avoided the contractor or developer shall notify the Department of Public Works Construction Inspectors. The City may require a detour plan to be prepared, submitted and approved prior to closing any portion of a City roadway.

1.20.030 Right-of-Way Use Permit

A Right-of-Way Use Permit may be required before work in the road can commence. See requirements in Chapter 3 permits section and utility locations section and contact the Department of Public Works for specific permit information.

1.21.000 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 1-800-424-5555, or 811.