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| Streets | Section 2 |
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A. General

Expansion of the City’s street system shall be consistent with the City of Poulsbo Comprehensive Transportation Plan. To be in accordance with the plan, development approval may include requirements for dedication of rights-of-way and construction of streets.

1. Purpose. The purpose of this section of the Design Guide is to establish requirements for the development of transportation-related facilities in the City of Poulsbo.

Well designed, economical, maintainable and sustainable projects are goals of the city. These design requirements are intended to supplement, but not substitute for, competent work by design professionals. Given our complex environment, the City Engineer may need to make decisions regarding competing project elements. Since all situations cannot be anticipated, the design professional has the responsibility to apply engineering analysis and sound professional judgment in the design process.

2. References and Authority. The City Engineer is authorized by Poulsbo Municipal Code Section 12.02.010 to prepare, adopt, and update as needed, standards to establish minimum requirements for the design and construction of transportation facilities and requirements for protecting existing facilities during construction. The standards contained in this document constitute the engineering standards authorized by PMC 12.02. These standards are intended to be consistent with the most currently adopted provisions and editions of the Poulsbo city code and Comprehensive Plan.

The following nationally and Washington State recognized standards (the most recent published versions) are incorporated by reference, except as noted in this section:

- Washington State Standard Specifications for Road, Bridge and Municipal Construction, Washington State Department of Transportation (WSDOT/APWA).
- Manual on Uniform Traffic Control Devices, US Department of Transportation
- Geometric Design of Highways and Streets, AASHTO
- Most current version of ADA Title III Regulation 28 CFR Part 36 by the Department of Justice.

Standards from the above listed publications may be applied to projects under the jurisdiction of the City of Poulsbo, unless modified by standards within this design guide or under special circumstances as determined by the City Engineer. Determinations by the City Engineer are final.

3. Permit required. No person shall begin work on the construction, alteration, or repair of any public street, sidewalk, or driveway entrance in the ROW without first obtaining approval of the plans and specifications for said work from the City Engineer.
4. Changes to This Manual. From time to time, it may be necessary to modify the standards of this manual. The City Engineer may incorporate minor changes administratively to this manual as they become necessary. General updates or substantive changes to the manual shall include an opportunity for public review and comment. Vesting does not exempt projects from adopting the most current design standard that pertains to safety or ADA access at the time of construction.
5. Meaning of terms. The definition of words and phrases as contained in PMC 12.02 are incorporated by reference.

B. Functional Classifications

1. Arterials and Urban Collectors. The Washington State Department of Transportation has classified the following Arterials and Urban Collectors:
 - a. Principal Arterials:
 - SR 305
 - Viking Avenue (from South city limits to SR 305)
 - b. Minor Arterials:

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| • Finn Hill | • Lindvig Way |
| • Bond Road/SR 307 | • Lincoln Road (from City limits to SR 305) |

c. Urban Collectors:

- Hostmark Street
- Liberty Way
- Liberty Road (from city limits to Viking Ave. and from 7th Ave. to 10th Ave.)
- Iverson Street
- 1st Ave. (from Torval Canyon to north road end)
- 4th, 6th, 7th, and 10th Avenue
- Caldart Avenue (from Hostmark to Forest Rock Lane)
- Pugh Road (from Lillehammer Lane to Lincoln Road)
- Noll Road
- Forest Rock Lane
- Little Valley Road (from Forest Rock Lane to Bernt Road)
- Johnson Way (from SR 305 to north road end)
- Sunset Street
- Mesford Ave.
- Bernt Road
- Torval Canyon Road
- Lincoln Road (SR 305 to 4th Ave./Fjord Drive)
- Front Street
- Fjord Drive
- Cedar Lane
- Olhava Way
- Dauntless Drive
- Advance Lane
- Reliance Street
- Urdahl Road
- Vetter Road
- Sunset Street
- Jensen Way (from Front Street to Sunset Street)

Designs for these arterials and urban collectors will be determined by the City Engineer during design for upgrades, rehabilitations or extensions, subject to resources and constraints.

2. Local Access Streets. Local access streets are those streets within the City that provide access between residences, businesses and other destinations within the arterial and State highway system network. Figure 2-01 establishes the dimensions and standards for local access streets. The following functional classifications are set forth for the City's local access streets:

- a. Neighborhood/Commercial Collectors. Neighborhood Collectors are intra-community streets which connect residential neighborhoods with centers and facilities. Commercial Collectors abut business, service, office and professional activities. See Standard Detail Fig. 2-02. Examples:

- Caldart Avenue
- Mesford Road
- Noll Road
- Pugh Road
- Forest Rock Lane
- 10th Avenue
- 7th Avenue
- Olhava Way

- b. Residential Collectors. Residential Collectors are streets which connect residential neighborhoods with one another and typically connect to Neighborhood Collectors. See Standard Detail Fig. 2-03. Examples:

- Gustaf Street
- 11th and 12th Avenue

June 1, 2009

- c. Residential Access. Residential Access streets provide circulation within neighborhoods or subdivisions, typically connecting to Residential Collectors. See Standard Detail Fig. 2-04. Examples:
 - Lena Place
 - Norrland Court
 - Karl Place
 - Vaughn Milton Loop
 - Stavanger Place
- d. Commercial Access. Commercial Access streets can be public or private, and provide interior access to commercial centers. See Standard Detail Fig. 2-05. Examples:
 - Powder Hill Place
 - Poulsbo Village
 - Olhava Access streets

C. Standards

1. Connectivity: In addition to specific municipal code requirements, it is the policy of the City to connect adjacent neighborhoods to one another to the extent safe and practical in conformance with the City's adopted Comprehensive Transportation Plan. The purpose is to provide safe, redundant and efficient access, and egress to both residents and emergency and safety equipment.
2. Pavement systems shall be constructed of either Portland Cement Concrete (PCC) or Asphalt Concrete (AC) over an engineered subbase. Depths and sections of which shall be designed to meet appropriate repetitions of loads and sub-base soil bearing capacity and, at a minimum, AC pavement shall conform to Section 2 – **N Materials and Methods**.
3. Streets shall be constructed and graded to full right-of-way widths and surfaced with asphalt concrete or Portland Cement Concrete to the widths specified in Fig. 2-01. Curb and gutter shall be Portland Cement Concrete meeting the specifications of the Standard Specifications for Road, Bridge, and Municipal Construction, WSDOT.
4. The location and alignment and names of streets shall conform to existing streets and the Comprehensive Street Plan except where, in the opinion of the City Engineer, topography or some physical feature eliminates the possibility of connecting these streets in the future. Developers shall submit proposed street names to the City Engineer for approval. The City Engineer will confirm that the street names conform to the requirements of Kitsap County Central Communications (CENCOM).
5. Streets and lots shall be placed in relationship to natural topography so that grading and filling and/or other alterations of existing conditions is minimized.

6. If, in the opinion of the City Engineer, it is necessary to give access to or permit future subdivision of adjoining land, streets and utilities shall be extended to the boundary of the subdivision and the resulting dead-end street shall be provided with a temporary cul-de-sac or hammerhead turnaround that will promote future egress points to viable new development projects. When the road is extended in the future to serve the adjacent parcels, property owners abutting the temporary cul-de-sac may petition the City Council for vacation of the portion of the right-of-way which is beyond the necessary right-of-way of the new road extension. If the vacation is granted, the abutting property owners will be responsible for the removal of pavement and sidewalks in the vacated area and reconstruction of the sidewalks in the revised right-of-way. The abutting property owners shall grant easements to the proper grantees for any utilities located within the vacated area. The abutting property owners shall be responsible for all construction costs, including engineering and surveying, and shall obtain all necessary permits from the City.

June 1, 2009

7. All public streets which dead-end shall be provided with a turnaround. The maximum length of any dead-end street is 500 feet. Dead-end streets serving 10 or fewer units may terminate in a hammerhead. Dead-end streets serving more than 10 units shall terminate in a cul-de-sac, see Standard Detail Fig. 2-10. Hammerheads and cul-de-sacs shall be dedicated as public right-of-way. No parking will be allowed in hammerheads or cul-de-sacs.

8. The center of residential cul-de-sacs will be unobstructed except that those areas may be proposed to be integrated with storm drainage systems such as pervious pavement infiltration areas or rain gardens. These areas shall not be used for storm water detention areas.

9. The maximum cross grade of a street at the street end shall be 8.0%.

June 1, 2009

10. Half-width streets: All frontage and off-site street improvements shall meet the standard set forth in Figure 2-09 unless the City Engineer approves a variance.

11. The street system (in residential subdivisions) shall be laid out with a minimum number of intersections with arterial streets. Arterial streets shall not intersect with other arterial streets at intervals closer than 1,320 feet. No streets shall intersect at intervals closer than 125 feet unless, in the judgment of the City Engineer, an exception to this rule would be in the public interest and welfare.

12. Street intersections shall be laid-out so as to intersect as nearly as possible at right angles. Under no circumstances shall any street intersect with any other street at an angle of less than 60 degrees.
13. Streets shall be designed for a speed limit of 25 miles per hour. The minimum horizontal curve radius shall be 125 feet.
14. Grades:
 - a. The maximum grade of all local access streets shall not exceed 12%.
 - b. Grades of up to 15% may be allowed on streets serving 9 or fewer residential units at the discretion of the Fire Marshal, provided all units have built-in fire protection.
15. Pavement markings: Pavement markings shall be in accordance with the "Manual on Uniform Traffic Control Devices" published by the US Department of Transportation.
 - a. Streets designated as Neighborhood/Commercial Collectors and those with higher classifications shall have centerline striping.
 - b. Crosswalks shall be striped on all streets designated as Neighborhood/Commercial Collectors and those with higher classifications.
 - c. Crosswalks at all mid-block crossings shall be striped for all street classifications.
 - d. The City Engineer may require striping in other classifications.
16. All street ends with the possibility of extension must have utilities stubbed out of the paved area a minimum of 6 feet or as directed by the City Engineer.
17. All-weather surfaces shall be constructed with a minimum 6 inches (compacted depth) of gravel base, and a minimum of 2 inches (compacted depth) crushed surfacing top course.
18. All intersections shall be designed with adequate sight distance in conformance with AASHTO standards.
19. The developer's engineer may be required to provide sight distance certification for intersections created by the project. Such certification shall note the minimum required sight distance, the actual sight distance provided, and a sight distance diagram showing the intersection geometry drawn to scale, topographic and landscaping features, and the sight triangle. The certification shall also note necessary measures to correct and maintain the minimum sight triangle.
20. Landscape medians:

June 1, 2009

- a. The developer shall submit a landscape plan that satisfies the planning department's requirements and meets the Engineering Department's sight distance requirements.
- b. The median shall be maintained by the property owner for commercial projects and the Homeowner's Association for residential projects. Maintenance shall be in conformance with the landscape plan approved by the Planning Department and sight distance and safety requirements of the Engineering Department.
- c. No utility structures shall be installed within or under the medians. If irrigation is installed for the median, the meter and check valve may be installed within the median. The irrigation system shall be shown on the utility plans and meet City design standards.

21. On-street parking is required on certain Local Access Streets described in Figure 2-01. On-street parking, where required, shall be provided at a minimum of ½ parking space per residential unit.

D. Driveways and Driveway Approaches

Driveway approaches shall conform to current WSDOT Standard Plans except as otherwise described as follows in this section.

1. Location:
 - a. No driveway shall be located so as to create a hazard to pedestrians, bicyclists, or motorists, or invite or compel illegal or unsafe traffic movements.
 - b. No driveway shall be constructed in such a manner as to be a hazard to any existing street lighting fixture, utility pole, traffic regulating device or fire hydrant. The relocation of any street structure shall be allowed only upon the approval of the agency owning the structure involved and the City Engineer.
 - c. Residential lots shall not access onto highways, arterial streets, business districts, neighborhood collectors or industrial areas unless approved by the City Engineer.
 - d. Exposed aggregate driveway approaches are not allowed.
 - e. If residential lots are 60 feet wide or less, driveways shall be shared between adjacent lots, or sidewalks shall be detached.
2. Size and Number:
 - a. Except as otherwise provided, the width of any residential driveway's access to the public right-of-way shall not be less than 10 feet or greater than 20 feet (exclusive of the radii of the returns). The minimum width for any commercial driveway (at the property line) shall be not less than 24 feet and not greater than 30 feet unless approved by the City Engineer. The City may authorize more than one residential driveway access or residential driveway widths greater than 20 feet for three-car garages, for access driveways necessary for off-

- street parking, recreational vehicle parking or in order to ensure safe egress to the public right-of-way.
- b. The total width of all driveways for any one ownership on a street shall not exceed 50% of that ownership along the street. Any driveway which has become abandoned or unused through a change of the conditions for which it was originally intended, or which, for any other reason, has become unnecessary, shall be closed. The owner, when directed by the City Engineer, shall replace any such driveway curb cut with a standard curb and sidewalks as described in this guide.
 - c. There shall not be more than two driveways on one street for any one ownership except where a single ownership is developed into more than one unit of operation. In such cases the proponent shall submit the proposed driveway configuration to the City for approval.
 - d. Unless otherwise approved by the City, all driveways, including the returns, shall be confined within lines perpendicular to the curb line and passing through the property corners. Driveways shall be located as far from intersections as practicable, as approved by the City Engineer.
3. Driveway Slopes:
- a. Driveway slopes shall not exceed 15% unless authorized by the City Engineer as set forth below.
 - b. The City Engineer may authorize driveway slopes to exceed 15%, up to a maximum of 20%, if it is determined that:
 - (1) The driveway is the only economically and environmentally reasonable alternative;
 - (2) The driveway will not present a traffic, pedestrian, bicycle, or safety hazard;
 - (3) The Fire Marshal concurs in allowing the increased driveway slope; and,
 - (4) The public health, safety, and general welfare will not be adversely affected.
4. Driveway Angle:
- a. The angle between any single-family residential driveway and the street roadway or curb line shall not be less than 60 degrees.
 - b. Commercial driveways shall be perpendicular to the street.
5. Driveway Transition:
- a. A vertical transition is necessary on driveways to allow adequate clearance for long overhang vehicles such as recreational vehicles, delivery and garbage trucks.
 - b. A transition shall be constructed whenever the algebraic difference in grade exceeds 6%. See Standard Detail Fig. 2-14.
6. Driveway Approach:

- a. Driveway approaches shall be reinforced with 10-gauge 6x6 welded wire mesh.
- b. The approach shall be Portland Cement Concrete not less than 6 inches in depth.

7. Shared Driveways:

- a. Shared driveways shall serve 4 or fewer residences.
- b. The driveway shall be 20 feet wide and be paved onto the property for a minimum of 20 feet from the right-of-way. An all-weather surface is acceptable for the remainder of the driveway. If the property can be further subdivided, provision must be made for the future right-of-way and City Street via increased building setbacks, lot layout, or other means which will provide for the future right-of-way.

E. Residential Parking Lots

On-street parking requirements in residential subdivisions may be waived if parking is clustered elsewhere on site in a Residential Parking Lot and meets the following requirements:

- a. The parking lot shall serve no more than 20 units.
- b. The number of parking stalls provided shall be equal to one-half the number of units the parking area serves.
- c. The parking lot shall be within a walking distance of 300 feet of the furthest unit it serves.
- d. All Residential Parking Lots shall meet the same construction requirements described for commercial parking lots in Section 2 - **M Commercial Parking Lots**.

F. One-Way Streets

June 1, 2009

One-way streets shall meet the following requirements:

- a. A minimum driving lane width of 20 feet.
- b. On-street parking may be required by the City Engineer.
- c. A sidewalk is required on one side. The City Engineer may require sidewalks on both sides of the street.
- d. The right-of-way width shall be the width of the required elements plus 2 feet.

G. Private Streets

Private streets are allowed for commercial or industrial sites or residential developments under one ownership, such as apartments and condominiums. Private streets are not allowed in other land use categories. The lane width and sidewalk requirements for public streets shall apply to private streets except in Planned Residential Developments (PRDs) per Title 18 of the Poulsbo Municipal Code. On-street parking is optional and requires an additional 8 feet of street width. The minimum fire lane width must be maintained at all times.

H. Sidewalks, Curbs and Gutters

Sidewalks, curbs and gutters shall conform to current WSDOT specifications and Standard Plans except as noted below.

1. Sidewalks shall be constructed in such a manner as to make provision for the installation of mailboxes, with clustered mailboxes to be provided wherever possible. The Postmaster shall be consulted as to location and other requirements. See Standard Detail Fig. 2-35.
2. All sidewalks shall meet the requirements of the Americans with Disabilities Act and shall be constructed per current WSDOT specifications and Standard Plans.
3. When sidewalk installation is required, all storm drainage, curbs, gutters, street pre-level and/or fill required to match the street to the sidewalk and asphalt surfacing shall be installed from the existing paved edge to the new gutter along the full length of the project. All costs for installation shall be borne by the developer.
4. Rolled curb and gutters are not permitted.
5. The standard sidewalk width shall be 5 feet except in the following circumstances:
 - a. Sidewalks on Residential Access streets and Residential Collectors may be reduced to 4 feet in width if separated from the street by 5 feet of landscaping, bioswale, raingarden, or by an 8 foot parking strip.
6. Expansion joint material shall not be installed between the back of the curb and the sidewalk.
7. Sidewalk subgrade shall consist of 6 inches (compacted depth) crushed surfacing base course and 2 inches (compacted depth) crushed surfacing top course.
8. Contraction joints shall be 5' on-center
9. Expansion joints shall be 15' on-center. Pervious concrete sidewalks shall have expansion joints spaced a maximum of 30'.

June 1, 2009

I. Curb Ramps

Access to sidewalks and public facilities shall comply with the Americans with Disabilities Act. Ramps shall be constructed per current WSDOT specifications and Standard Plans and most current version of ADA Title III Regulation 28 CFR Part 36 by the Department of Justice. Upgrading or adding ADA curb

ramps to a project will require the upgrade and/or addition of the corresponding ramp connection unless approved by the City Engineer.

June 1, 2009

J. Bicycle Facilities

1. All new Arterial, Minor Arterial, Urban Collector and Neighborhood/Commercial Collector streets shall be reviewed for potential bicycle facility improvements per the discretion of the City Engineer.
2. Bicycle Lanes:
 - a. Delineated bicycle lanes shall be a minimum of 4 feet wide on roads without vertical curbs and a minimum of 5 feet wide on all roads with vertical curbs and gutters.
 - b. Bicycle lanes shall be marked in accordance with AASHTO and MUTCD standards.
 - c. Stormwater catchbasin grates located in delineated bicycle lanes shall be situated at-grade and made bicycle-safe.

K. Mailboxes

Mailboxes shall be installed per City of Poulsbo standards and the requirements established by the Postmaster, Poulsbo, Washington. See Standard Detail Fig. 2-35.

L. Street Lighting

Street lighting shall comply with the Illuminating Engineering Society (IES) standards for the street classification for which it is designed.

M. Commercial Parking Lots

1. All parking lots shall be paved and include stormwater controls per adopted City standards for stormwater management. Low Impact Development techniques are encouraged. Pervious pavement systems shall follow the guidelines for design and construction of the current adopted Low Impact Design Manual.
2. The developer's engineer shall submit a pavement mix design and pavement/subgrade section to the City Engineer for approval. At a minimum, the design and section shall support garbage truck wheel loads.
3. Compaction testing for subgrade and pavement may be required. Testing shall:
 - a. Conform to WSDOT specifications;
 - b. Be performed at the developer's expense; and
 - c. Test reports shall be provided to the City Engineer for review and acceptance.

N. Materials and Methods

1. General:
 - a. All materials and methods not specifically referenced in this manual shall comply with the applicable sections of the most currently adopted editions of the APWA, and APWA/WSDOT Standard Specifications. When there are differences between the specifications, the Public Works Director shall determine which shall apply.
 - b. Where reference is made to other specifications, it shall be the latest revision at the time of construction, except as noted on the plans or herein.
 - c. When specific manufacturers or models of various materials are listed, no substitutions will be allowed without prior approval by the Public Works Director.

2. Asphalt Concrete Pavement: Asphalt concrete pavement shall conform to WSDOT Standard Specifications. Superpave™ asphalt concrete shall be used unless use of an alternate class is approved by the City Engineer. Asphalt Concrete Pavement sections shall be designed for anticipated traffic (loading repetitions) or the following minimum standard sections:

| <u>Classification</u> | <u>Asphalt - Top Course – Base Course</u> (inches) |
|---|---|
| Arterial | 4 - 4 - 6 |
| Commercial Access/Collector | 4 - 4 - 6 |
| Neighborhood Collector | 4 - 4 - 6 |
| Residential Collector | 3 - 4 - 6 |
| Residential Access & all other residential categories | 3 - 4 - 6 |

- a. Bank Run Gravel. Bank run gravel (gravel base) shall conform to Division 4 of the Standard Specifications.
 - b. Crushed Surfacing. Crushed surfacing shall conform to Division 4 of the Standard Specifications.
 - c. Top course and base course shall extend to the back of the sidewalk for all pavement classifications.
 - d. Asphalt shall be placed in two lifts. Tack coat shall be placed between lifts.
 - e. Tack coat shall be placed on the face of all gutter or other adjoining edges.

3. Low Impact Development materials:
 - a. Pervious Asphalt or Portland Cement Concrete:

1. Pervious pavement may be used in the construction of sidewalks, residential and commercial parking lots, shared paths, and bike lanes all at the discretion of the City Engineer. Pervious pavement systems shall follow the guidelines for design and construction of the current adopted Low Impact Design Manual.
2. Pervious pavement shall not be used in the construction of the travelled way of any Arterial, Minor Arterial, or Local Access Street described in Figure 2-01.
3. The developer's engineer shall submit a pervious pavement mix design and pavement/subgrade section to the City Engineer for approval. The design and section shall support maximum legal wheel loads on surfaces intended for vehicle traffic.
4. Pervious concrete pavement shall be prepared and placed under the direction of a supervisor with documented training in preparing and placing pervious concrete. Acceptable training includes certification by the National Ready Mix Concrete Association as a Pervious Concrete Installer or Craftsman, or by other recognized state or national authorities of an equivalent level of competence.
5. Pervious concrete shall be tested for appropriate void space, etc., to the satisfaction of the City Engineer.
6. Pervious concrete shall be field tested for infiltration rates and recorded after installation to verify if the design infiltration rate has been met and to document the initial infiltration rate for determining future maintenance cleaning cycles.

b. Pavers:

1. Brick pavers may be used in the construction of residential and commercial parking lots, the shoulders of local access streets, and bike lanes, all at the discretion of the City Engineer.

4. Monuments: Monuments shall be furnished and installed in accordance with WSDOT Standard Specifications. See Standard Detail Fig. 2-16, Fig. 2-17, and Fig. 2-18.
5. Backfill adjacent to sidewalks and curbs: The contractor shall place and compact backfill material against sidewalks and curbs immediately upon removal of the forms.
6. Covers in Paved Rights-of-Way: Water valve boxes, cleanouts, and manhole covers shall be flush with final street grade.
7. Street Signs: Street signs shall comply with the provisions of the MUTCD and the following: See Standard details Fig. 2-36, Fig. 2-37, Fig. 2-38, and Fig. 2-39.
 - a. Sign Specifications

June 1, 2009

- (1) Sign thickness shall be 0.080.
 - (2) Stop signs shall be High Intensity Grade sheeting. Diameter shall be 30 inches, unless specified otherwise.
 - (3) Standard street name sign height shall be 6 inches, unless specified otherwise.
 - (4) Street name signs shall be double-sided with white lettering on a green background, with Engineer-grade reflectorized sheeting.
 - (5) Signs shall be "flat blade" type with rounded corners and white border.
 - (6) Letter/Number style shall be Series C, 4-inch height, Hi-way Gothic Style font, unless specified otherwise.
 - (7) Bottom of signs shall be 7 feet from final grade.
 - (8) Reusing existing street signs is permitted only if the signs have been tested to meet the current reflective sign requirements, MUTCD codes, and approval by the City Engineer.
- b. Post Specifications
- (1) 2- inch square post with 7/16-inch Qwik-Punch™ type holes (or equivalent) on 1 inch centers.
 - (2) Larger post sizes may be required for larger signs.
 - (3) Conform to the standard specification for hot-rolled sheet steel, structural quality ASTM designation A570, Grade 50.
 - (4) Hot dipped galvanized 14-gauge steel with a clear polymer coating.
- c. Post Anchor
- (1) Anchor must be 30 inch X 7ga. heavy duty galvanized metal. Other anchor lengths may be required.
 - (2) Hole must be sized to accept a minimum of two (2) 60# bags of concrete, larger hole sizes or concrete quantities may be required due to soil conditions.
 - (3) Anchor must be plumb/level, set at 3 inches above final grade.
 - (4) Bottom of anchor must be taped to prevent concrete from entering from bottom.
- d. Post Hardware
- (1) 3/8-inch stainless steel drive rivet with 3/8-inch x 1-inch nylon washer (nylon washer to be installed between rivet and sign).
 - (2) 5/16- inch corner bolt with 5/16-inch heavy hex jam nut.
- e. Sign Hardware
- (1) Mounting cap.
 - (2) 90-degree cross-piece. Minimum slot length shall be 5-1/2 inches. Typical slot lengths range from 5-1/2 to 12 inches. Slot lengths greater than 12 inches may be required. Allen head set screws shall be installed with an anti-seize lubricant on the threads (Never Seize™ or equivalent).
- f. Stainless Steel Pole Mounting Accessories
- (1) 0.030- inch x 3/4-inch strapping.

- (2) 3/4-inch buckles (Band-It™ or equivalent).
- (3) Flared leg bracket, mounting bolt, washer, and nylon washer.

June 1, 2009

- 8. Thermoplastic Pavement Markings:
 - a. 125 mil. PreMark®, or equivalent, preformed thermoplastic pavement markings for torch-down application
 - b. Application by thermoplastic machine is acceptable.
- 9. Survey: All utilities and roads shall be staked for construction by the developer's engineer. The contractor is responsible for the installation of sidewalks and streets to the correct grade and alignment.
- 10. Clearing and Grubbing: The work performed shall be done in accordance with Division 2 of the WSDOT Standard Specifications. The limits shall be to the right-of-way margins unless shown otherwise on the approved construction drawings. Where clearing and grubbing will be within 5' of the ROW or property line, the clearing limits are to be field staked and verified by the city inspector before clearing and grubbing.
- 11. Excavation and Embankment: Roadway excavation and embankment construction shall be performed in accordance with Division 2 of the WSDOT Standard Specifications. Compaction shall be by Method B.
- 12. Erosion Control: Erosion control shall be performed in accordance with current DOE Stormwater Manual Volume II approved special provisions, and Appendix A: Standard Drawing Notes of the City of Poulsbo Standard Specifications.

O. Standard Drawings

2-01 Local Access Street Standards

2-02 Typical Roadway Section – Neighborhood/Commercial Collector

2-03 Typical Roadway Section – Residential Collector

2-04 Typical Roadway Section – Residential Access, sidewalk one side

2-05 Typical Roadway Section – Commercial Access

2-08 Typical Roadway Section – Low Impact Development

2-09 Typical Roadway Section – Half-Width Street Improvement

2-10 Cul-de-sac

2-14 Driveway Transition

2-16 Monument Installation

2-17 Precast Monument

2-18 Monument Frame and Cover

2-22 WSDOT Cement Concrete Sidewalk

2-29 Typical Patch for Flexible Pavement

2-30 Typical Pavement Restoration

- 2-31 Traffic Calming – Speed Bump**
- 2-32 Traffic Calming – Bulb-out**
- 2-33 Traffic Calming – Two Lane Slow Point**
- 2-34 Traffic Calming – Midblock Median**
- 2-35 Mailbox Installation**
- 2-36 Sign Post Installation Anchor Detail**
- 2-37 Sign Placement**
- 2-38 Sign Fabrication**
- 2-39 Sign Standard**
- 2-50 Typical Conduit Roadway Crossing Detail**

| Design Standard | Neighborhood/ Commercial Collector | Residential Collector | Residential Access | Commercial Access |
|-------------------------------------|---------------------------------------|-----------------------|--|--------------------------------------|
| Figure | 2-02 | 2-03 | 2-04 | 2-05 |
| ROW Width | 50' two lanes 60' three lanes | 50' | 40'; or 45' if sidewalks required on both sides | As required |
| Pavement Width | 30' two lanes 42' three lanes | 30' | 28' | 24' |
| Recommended ADT ¹ | > 4000 | 400 - 4000 | < 400 | < 1000 |
| Sidewalk | Both sides | Both sides | One side; both sides if required by City Engineer | As required by City Engineer |
| Lane width | 12' | 11' | 10' | 12' |
| Paved shoulder | 3' | none | none | none |
| Connectivity | Yes | Yes | No | No |
| Maximum grade | 12% | 12% | 12% | 12% |
| Curb radii | 35' | 35' | 25' | 35' |
| On-street Parking | None unless 8' bulb-outs provided | 8' one side | 8' one side | None unless 8' bulb-outs provided |

Figure 2-01. Local Access Streets

¹ Volumes based on 9.55 Average Daily Trips (ADT) per residential unit.