Marysville City Council Work Session
May 7, 2007 **7:00 p.m.** **City Hall**

Call to Order
Pledge of Allegiance
Roll Call
Committee Reports
Presentations

A. Healthy Communities.

B. Marysville Juror Appreciation Week.

Discussion Items

Approval of Minutes *(Written Comment Only Accepted from Audience.)*

1. Approval of April 23, 2007 City Council Meeting Minutes.

2. Approval of May 7, 2007 City Council Work Session Minutes.

Consent

3. Approval of April 25, 2007 Claims in the Amount of $344,751.95; Paid by Check No. 38660 through 38809.

4. Approval of May 2, 2007 Claims in the Amount of $731,826.31; Paid by Check No. 38810 through 38956 with Check No. 37023 Void.

5. Approval of May 9, 2007 Claims.

6. Approval of April 20, 2007 Payroll in the Amount of $610,397.61; Paid with Check No. 17745 through 17803.

7. Approval of May 4, 2007 Payroll.

8. Authorize Mayor to Sign Final Plat Mylar for Waldow Heights PRD.

9. Acceptance of 2006 Sewer Replacement Project and Begin 45-Day Lien Filing Period.

10. Authorize Mayor to Sign Corrected Water and Sewer Mutual Aid Agreement with EWUC.

11. Approval of Curriculum Plan by Marysville School District No. 25 & Allow 100% Surface Water Rate Reduction Applicable for Five Years Subject to End of the Year Progress Updates from the Marysville School District.

Work Sessions are for City Council study and orientation – Public Input will be received at the May 14, 2007 City Council meeting.

Marysville City Council Work Session
May 7, 2007 **7:00 p.m.** **City Hall**

12. Authorize the Mayor to Sign Interlocal Agreement with Snohomish County in the Amount $369,556.00 for 51st Avenue/122nd Place NE Intersection Improvements Project.

13. Authorize Mayor to Sign Professional Services Agreement in the Amount of $250,000 with HDR Engineering; Updating Water Comprehensive Plan.

14. Authorize Mayor to Sign Agreement with HDR Engineering, Inc. to Prepare Phase 1 of the I-5 to City Center Access Study for Estimated Cost of #361,090.54 Including 5% Management Reserve.

15. Approval of Department of Corrections Community Work Crew Contract Renewal.

Review Bids

16. Edward Springs 327 Zone Reservoir Project.

Public Hearings

17. Moratorium on Filing and Receipt of Applications within Smokey Point Subarea; Ordinance No. 2691.

Current Business

New Business

18. Strawberry Festival Master Permit/Agreement and 2007 Festival Proposal.

19. Thorsteinson Lot 6; 152nd Street Building Site Plan (BSP) Amendment.

20. 10% Notice of Intent to Annex; Calvary Annexation; PA 07031.

21. 10% Notice of Intent to Annex; Estabrook Annexation; PA 07017.

22. Low Impact Development (LID) Proposed Code Amendments; PA 06-066.

23. Engineering Design and Development Standards Proposed Revisions.

Legal

24. Recovery Contract for Sewer; RMJ Associates, LLC.

25. Recovery Contract for Water; Seattle Pacific Homes, Inc.

Work Sessions are for City Council study and orientation – Public Input will be received at the May 14, 2007 City Council meeting.

Marysville City Council Work Session
May 7, 2007 **7:00 p.m.** **City Hall**

Ordinance and Resolutions

26. An Ordinance of the City of Marysville , Washington Amending the City's Development Regulations Related to Low Impact Development Regulations Related to Low Impact Development and Amending Chapters 12.02A, 14.15, 14.16, 14.17, 19.06, 19.16, 19.24, 19.28, 20.12, and 20.24, and Establishing a New Chapter 19.49 of the Marysville Municipal Code.

27. An Ordinance of the City of Marysville, Washington, Amending the City's Engineering Design and Development Standards by Amending the Water Distribution Design and Construction Standards and Specifications (Chapter 2), The Engineering Design and Development Standards (Chapter 3), the Drainage and Erosion Control Design Standards (Chapter 4), and the Sanitary Sewer Design Standards (Chapter 5), Authorizing the City Engineer to Make Technical Amendments to Said Standards, and Amending the Prior Ordinances that Adopted and Amended Said Standards.

28. An Ordinance of the City of Marysville, Washington Amending the City's Comprehensive Plan by Adopting the Initial Subarea Plan for the East Sunnyside/Whiskey Ridge Area and Amending the City's Development Regulations by Amending Chapters 19.12 and 19.26 MMC.

29. An Ordinance of the City of Marysville Amending the Official Zoning Map of the City and Providing for the Area-Wide Rezoning of Property within the City to Conform to the East Sunnyside/Whiskey Ridge Subarea Plan.

30. An Ordinance of the City of Marysville, Washington Amending the City's Development Regulations Related to Residential Density Incentives and Amending Chapter 19.26 of the Marysville Municipal Code.

31. An Ordinance of the City of Marysville, Washington, Amending the Comprehensive plan's Transportation Element to Reflect Additions to the Street Capital Facilities Plan and Amending the 2007 Budget to Reflect Additional Revenues from the Increased Proportionate Share Amount of Traffic Impact Fees.

32. A Resolution of the City of Marysville, Snohomish County, Washington to Authorize the Mayor to Sign the Water and Sewer Mutual Aid Agreement – 2006 for the Provision of Personnel, Materials and Equipment to Other Water & Sewer Utilities (Purveyors) in Snohomish County Who Are Parties to the Agreement and Who Request Assistance to Handle a Disaster or Emergency.

33. A Resolution of the City of Marysville Declaring Certain Items of Personal Property to be Surplus and Authorizing the Sale or Disposal Thereof.

Work Sessions are for City Council study and orientation – Public Input will be received at the May 14, 2007 City Council meeting.

Marysville City Council Work Session

May 7, 2007 — 7:00 p.m. — City Hall

Mayor's Business

Staff Business

Call on Councilmembers

Information Items

Adjourn

Executive Session

A. Litigation
B. Personnel
C. Real Estate

Adjourn

Special Accommodations: The City of Marysville strives to provide accessible meetings for people with disabilities. Please contact Kristie Guy, Human Resources Manager, at (360) 363-8000 or 1-800-833-6384 (Voice Relay), 1-800-833-6388 (TDD Relay) two days prior to the meeting date if any special accommodations are needed for this meeting.

Work Sessions are for City Council study and orientation – Public Input will be received at the May 14, 2007 City Council meeting.

CITY OF Marysville WASHINGTON

Marysville Juror Appreciation Week

PROCLAMATION

WHEREAS, the right to trial by a jury of one's peers is an important and unique part of our system of justice, and a cornerstone of our form of government; and

WHEREAS, the Sixth and Seventh Amendments to the Constitution preserve the right to trial by jury and give the jury the responsibility to defend, with its verdict, all other individual rights enumerated or implied by the U.S. Constitution, including its Amendments; and

WHEREAS, the state of Washington (in Article I, Section 21 of the Washington Constitution) recognizes these rights as true and unalienable; and

WHEREAS, it is important to recognize the vital role played by the nearly 300 citizens who take time away from their families and businesses to serve as jurors each year in Marysville, and

WHEREAS, the Marysville Municipal Court would like to express appreciation to the employers and business owners who know the value of allowing their employees to perform their civic duty and serve as jurors;

NOW, THEREFORE I, Dennis Kendall, by virtue of the authority vested in me as Mayor of the City of Marysville in the State of Washington do hereby proclaim the week of **May 7 through May 11, 2007** as

"JUROR APPRECIATION WEEK"

in the City of Marysville and extend appreciation to our citizens for the vital service they perform when they represent their community as jurors.

Under my hand and seal this _____day of _____, 2007.

THE CITY OF MARYSVILLE

_____
MAYOR

April 23, 2007 **7:00 p.m.** **City Hall**

Call to Order/Invocation/Pledge of Allegiance/Roll Call	7:00 P.M.
Approval of Minutes	
Approve April 9, 2007 City Council Meeting Minutes	Approved
Approve April 16, 2007 City Council Work Session Minutes	Approved
Consent Agenda	
Approve April 4, 2007 Claims in the Amount of $925,705.42; Paid by Check No. 28133 through 38254 with Check No. 37634 Void.	Approved
Approve April 11, 2007 Claims in the Amount of $1,463,601.68; Paid by Check No. 38255 through 38491 with Check No. 38077 Void.	Approved
Approve April 18, 2007 Claims in the Amount of $321,220.68; Paid by Check No. 38492 through 38659 with Check No. 38186 and 38486 Void.	Approved
Approve April 5, 2007 Payroll in the Amount of $1,054,393.95; Paid by Check No. 17678 through 17744 with Check No. 17732, 17730, 17727, and 17728 Void.	Approved
Accept the Regan Road Lift Station Improvements Project as Complete and Begin 45-Day Lien Filing Period.	Approved
Approve and Authorize mayor to Sign Supplemental Agreement No. 2 with Gray & Osborne, Inc. for Construction Management Services on the Edward Springs 327 Zone Reservoir Project.	Approved
Approve and Authorize Mayor to Sign Interlocal Agreement with Snohomish County for 2007 Overlay Program.	Approved
Affirm the Hearing Examiner's Recommendation to Approve the Woods/Snyder Rezone and Preliminary Plat with Conditions; PA 06016.	Approved
Review Bids	
Public Hearings	
Approve the Planning Commission's recommendation to adopt East Sunnyside/Whiskey Ridge subarea plan, development regulations and areawide rezone, to accept the staff's recommendation regarding the citywide traffic impact fee and to direct staff to make the necessary revisions to the plans prior to adoption by city ordinance on May 14, including the clarifications from the Community Development Director.	Approved
Direct staff to draft a resolution to review the impact fees during the Comprehensive Plan review.	Approved
Current Business	
New Business	
Legal	
Approve Recovery Contract for Water; Powell-Smokey Point, LLC.	Approved Recovery Contract No. 275
Ordinances and Resolutions	
Approve an Ordinance of the City of Marysville Affirming the Decision of the Hearing Examiner and Rezoning Properties Owned by Elwyn & Gulser Wood and Michael Snyder Amending the Official Zoning Map of the City.	Approved Ord. No. 2693
Information Items	
Mayor's Business	

April 23, 2007 **7:00 p.m.** **City Hall**

Staff Business	
Call on Councilmembers	
Adjournment	10:00 p.m.

MARYSVILLE CITY COUNCIL MEETING

April 23, 2007 **7:00 p.m.** **City Hall**

CALL TO ORDER / INVOCATION / PLEDGE OF ALLEGIANCE

Mayor Dennis Kendall called the April 23, 2007 meeting of the Marysville City Council to order at 7:00 p.m. The invocation was given by David Luster of the Turning Point Community Church. Mayor Kendall led those present in the Pledge of Allegiance.

ROLL CALL

Chief Administrative Officer Mary Swenson gave the roll call. The following staff and councilmembers were in attendance.

Mayor: Dennis Kendall

Council: Mayor Pro Tem Jon Nehring, Lee Phillips, Carmen Rasmussen, Jeff Seibert, John Soriano, Jeff Vaughan, and Donna Wright

Staff: Mary Swenson, Chief Administrative Officer; Grant Weed, City Attorney; Sandy Langdon, Finance Director; Paul Roberts, Public Works Director; Gloria Hirashima, Community Development Director; Rick Smith, Chief of Police; Kevin Nielsen, City Engineer/Assistant Public Works Director; and Laurie Hugdahl, Recording Secretary.

COMMITTEE REPORTS

Councilmember Rasmussen reported on the Parks Advisory Board meeting that was held on April 11. Their newest member was in attendance. Topics discussed included the following:

- Jennings Park – irrigation underway, Belmark donation for pergolas, Rotary donation for new picnic tables and benches
- Healthy Communities project presented with action steps
- Discussion of the future of the cannon at Jennings Park
- Update on proposed dog park
- Parks and Recreation Activity Guide has been mailed out
- Marysville Pilchuck High School has submitted additional information
- Jim Ballew and Doug Buell attended the National Livability Summit in Atlanta, GA
- Suggestion to start a kickball league and hold a Gaelic Football national tournament

Councilmember Seibert reported on the Finance Committee meeting:

- New city clerk starting on May 1
- Paperless agenda modifications
- Passport services update
- Traffic Impact Sales Tax Rebate discussion
- Annexation Sales Tax (new state bill)
- Auditors coming – Performance Audit and SAS 112
- Utility Billing Update – surface water, looking at exempting city-owned property
- Technology Update – 2 computer techs will be starting May 1
- Lockbox started last week and is going well
- Online and automated call services starting June 1

Sandy Langdon explained that the Performance Audit will likely be postponed altogether in light of new information given to the auditors.

Councilmember Phillips stated that the TV Advisory Committee met and discussed the final motion from Council. On May 9 they will have a mini-charette to plan out what people would like to see on the station. The public will be invited.

Councilmember Seibert reported on the April 13 Public Works Meeting. Topics discussed included the following:

- Stillaguamish Water Filtration Plant ribbon-cutting
- Ingraham Blvd public meeting next month
- Transportation Update – 156th overpass/triangle
- Presentation on work program – tracking city employees' projects
- School District surface water curriculum
- City-owned property surface water rates

PRESENTATIONS

Proclamation: White Cane Days

Mayor Kendall read the Proclamation designating May 5th and 6th as Lions White Cane Days. He presented the proclamation to a Phil Thorleifson, President of the Lions Club.

A. Employee Service Awards.

Employee Service Awards were presented to the following employees:

- Travis Ballou, Solid Waste Collector – 5 years
- Tim King, Heavy Equipment Operator – 10 years

AUDIENCE PARTICIPATION

Kurt Beffert, 6221 47th Avenue NE, Unit 3B, Marysville, expressed concern about the lack of legal consequences following an attempted break-in by his daughter to his house. He requested communication with Chief Smith. Chief Smith immediately made himself available to privately discuss the matter.

Amanda Hollis, 4021A 168th Place NE, Arlington, spoke as a representative of the Navy Wives Clubs of America, Chapter 277. They are hosting a walkathon at the Naval Station Everett Memorial Day weekend to raise money for a monument honoring Navy sacrifices on D-Day.

Van Berkbigler, 6114 83rd Avenue NE, spoke regarding dead trees in wetland areas that are untended. He was concerned that they pose a dangerous situation by hanging over the street.

APPROVAL OF MINUTES

1. Approval of April 9, 2007 City Council Meeting Minutes.

Motion made by Councilmember Wright, seconded by Councilmember Vaughan, to approve the minutes as presented. **Motion** passed unanimously (6-0) with Councilmember Soriano abstaining since he did not attend the meeting.

2. Approval of April 16, 2007 City Council Work Session Minutes.

Councilmember Rasmussen had the following amendments:

- Page 1 – The last sentence of the second paragraph under Committee Reports should read: *He stressed the importance of . . . . ~~middle school~~ gang activity and prevention.*
- Page 3 – The second sentence in the second paragraph under item 7 should note that City Engineer/Assistant Public Works Director Nielsen was speaking to the overlay project and not the project that Councilmember Rasmussen had asked about (3rd and 47th).
- Page 4 – The second sentence in the last paragraph on the page should read: *Public Works Director Roberts . . . , and Councilmember Rasmussen asked at what point the fee is much greater* ***in percentage as compared to*** *the median home price"*

Motion made by Councilmember Nehring, seconded by Councilmember Soriano to approve the minutes as amended. **Motion** passed unanimously (7-0).

CONSENT AGENDA

Motion made by Councilmember Vaughan, seconded by Councilmember Wright, to approve the following Consent Agenda items 3, 4, 14, 15, and 5 though 8:

3. **Approval of April 4, 2007 Claims in the Amount of $925,705.42; Paid by Check No. 28133 through 38254 with Check No. 37634 Void.**

4. **Approval of April 11, 2007 Claims in the Amount of $1,463,601.68; Paid by Check No. 38255 through 38491 with Check No. 38077 Void.**

14. **Approval of April 18, 2007 Claims in the Amount of $321,220.68; Paid by Check No. 38492 through 38659 with Check No. 38186 and 38486 Void.**

15. **Approval of April 5, 2007 Payroll in the Amount of $1,054,393.95; Paid by Check No. 17678 through 17744 with Check No. 17732, 17730, 17727, and 17728 Void.**

5. **Acceptance of the Regan Road Lift Station Improvements Project as Complete and Begin 45-Day Lien Filing Period.**

6. **Approve and Authorize mayor to Sign Supplemental Agreement No. 2 with Gray & Osborne, Inc. for Construction Management Services on the Edward Springs 327 Zone Reservoir Project.**

7. **Approve and Authorize Mayor to Sign Interlocal Agreement with Snohomish County for 2007 Overlay Program.**

8. **Affirm the Hearing Examiner's Recommendation to Approve the Woods/Snyder Rezone and Preliminary Plat with Conditions; PA 06016.**

Motion passed unanimously (7-0).

REVIEW BIDS

None.

PUBLIC HEARING

9. **Planning Commission Recommendation to Approve Comprehensive Plan Amendment Adopting a Subarea Plan for the East Sunnyside/Whiskey Ridge Area, Development Regulations and**

Areawide Rezone of the Subarea, and Updating the Calculation for Transportation Impact Fees Collected within the City of Marysville.

The hearing was opened at 7:31 p.m. The staff report was delivered by Gloria Hirashima as detailed in the Executive Summary for Action, the Key Master Plan Concepts, and the preliminary draft plans in Council's packet.

City Engineer/Assistant Public Works Director Kevin Nielsen then delivered a PowerPoint presentation covering the Traffic Impact Mitigation Fees as contained in Council's packet. The staff recommendation was a discounted impact fee of $2,000 for commercial (represents an 86% discount) and $6,300 for residential (56% discount).

Chief Administrative Officer Swenson commented that loans have been taken out for finishing city streets projects which is very unusual. This was done in order to fund some of the Smokey Point projects. The City views this as money well spent due to escalating costs. She noted that it is also unusual for cities to dedicate a portion of sales tax revenue to road improvements. Marysville has been very progressive in this regard.

Councilmember Rasmussen asked City Engineer/Assistant Public Works Director Nielsen if there would be a review of the fee after the Comprehensive Plan update and the vote on RTID. Mr. Nielsen confirmed that there would be.

Gloria Hirashima pointed out two clarifications/amendments to the proposed plan:

1. One of the key concepts refers to undergrounding utilities. This requirement to underground power lines was intended to refer to distribution lines, not transmission and feeder lines.
2. The text references for density and dimension will be clarified regarding the two different multifamily zones (low and high).

Public Testimony:

Mark Hagen, 4421 67th Avenue NE, expressed concern about lack of pedestrian walkways in the area. He complained that people regularly cut across his property in order to avoid dangerous pedestrian conditions on the street.

Cookie Prather, 4007 Sunnyside Blvd, recommended new road plans, especially at the corner of 40th and Sunnyside. She is at risk of losing a large portion of her property to street widening. She requested that Council consider the petition submitted to Council from Sunnyside Homeowners for Rational Development. The petitioners requested that Council "consider improving existing roads including improving the corner at 67th and 44th Street NE and the corner at 44th Street NE and 71st Street."

David Toyer, Vice President Government Affairs, Barclays North, 10515 20th Street SE, Everett, WA 98205, spoke in opposition to increased fees in Marysville. He discussed fee increases over the last 18 months in Marysville. He expressed concern about dramatic increases in costs and how this impacts the builders' ability to provide affordable housing. He urged the Council to strike a balance between commercial and residential fees and recommended stepping the fee in.

Councilmember Seibert asked him if he was in favor of $14,000 or $6,300. Mr. Toyer replied that neither was acceptable. He stated that state law says you can't charge the maximum fee. He suggested looking at additional ways to take the burden off this type of development.

Wendy Alt, 6605 40th Street NE, Sunnyside Homeowners for Rational Development, spoke on behalf of Tim and Rebecca Nixon, 4024 71st Avenue NE, who were not able to attend. She read a letter from them into the record expressing their concerns about the decreased value of their home and encouraging the Council to strongly consider improving existing roads.

Ms. Alt then reiterated the Nixon's letter. She commented that her property has been in the family since 1923. She and her husband moved here four years ago to build their dream home. She is very concerned about the notification process since she was not aware of what was happening. She urged the Council to consider the people who live there.

Jim Short, 6917 40th Street NE, distributed to Council his conceptual plan for an alternative road. He questioned the reasoning for the proposed road alignment stating that he thought that the study was skewed. He suggested that there was a false count as a result of people cutting through their area to get to the freeway. He recommended taking away the proposed road alignment in order to save $17 million.

Chris Bandoli, Government Affairs Manager, Barclays North, 10515 20th Street SE, Everett, WA 98205, concurred with David Toyer's comments. In addition, he encouraged Council to keep the 6.5 density in the expansion area.

James Shuller, 6704 50th Pl. NE, expressed concern about existing noise levels on 67th. He stated that with increased traffic this will only get worse.

James Alt, 6605 40th Street NE, suggested that Council is not ready to vote on this. He expressed concern about the validity of the engineering study. He stated that areas of the traffic plan cause him concern because the City plans to drive people through his neighborhood, not around it. He thinks extending 40th to Sunnyside will only exacerbate a problem. He commented that development has doubled the amount of water on his land to make it a class II wetland. He did not believe the City had considered how it would address that.

Jeri Short, 6917 40th Street NE, read into the record the letter from Sunnyside Homeowners for Rational Development which recommended improving the existing roads including the corner at 67th and 44th Street NE and the corner of 44th Street NE and 71st Street. This was signed by 23 homeowners in the neighborhood. Ms. Short was very concerned about the notification process. She stated that this plan will dramatically impact what she can do with her property.

Ken White, 3303 87th Avenue NE, spoke in opposition to the 40th Street extension to Highway 9. He stated that traffic is also very bad in that area. This would bring much more traffic to the area. The City needs to reconsider this decision. He appreciated the Planning Commission bringing up the issue of sharing the costs with developers and throughout the city.

Kathy Johnson, 927 Quinn Avenue, was very upset about the lack of notification of property owners. She was opposed to the multi-family zoning in the area. She supported the increase in mitigation fees and expressed hope that this would be used for not just new roads, but also public transit options and bike/pedestrian trails. Regarding Mr. Toyer's argument about affordable housing, she stated that there are other places that the money can come from. She suggested that the builders build smaller homes and take less of a profit.

Gerald McKinney, 422 71st Avenue NE, concurred with Jeri and Jim Short. She was opposed to the proposed new roads.

Don Andrews, 6727 40th Street NE, spoke in opposition to the extension from 67th to 71st. He thought that this was not very well thought out. It was his opinion that existing roads could serve the same purpose. Also, since most homeowners are not considering moving, the City would need to purchase the land. He suggested that by widening existing roads, the City could save money and also preserve the quality of life of the people who have lived there a long time.

Barbara Miller, 303 91st Street, Everett, stated that she has been involved in this process for almost two years with the City. She has attended many Planning Commission meetings and workshops. She has spoken with the planning department and the Mayor's office numerous times. She commended the City staff as being very thorough, diligent, informative, and open. She felt that the information was widely available and she disagreed with the arguments about lack of notification. She said she spoke on behalf of the Proctors, DeGroots, Haugans, Sharkeys, Laceys, Roses, Hazes, Hollands in stating that they felt the City has done thorough research and planning. She urged the Council, on behalf of herself and those families, to approve the proposed plan.

Heather Izzard, 4726 87th Avenue NE, concurred with Ms. Miller's comments. She said she had and her husband had been aware since they purchased the property nine years ago that this was a possibility. They have followed the process for the last

two years. She felt that she had been very well notified and well informed. She urged Council to make a decision.

Jeff Coon, 4003 83rd Avenue NE, stated that the proposed new road would take the majority of his property away. He requested clarification of how this would affect him.

Mike Pattison, Master Builders Association, concurred with the comments by Barclays North regarding higher densities. This would help further GMA goals and is a very modest approach. He spoke in support of discarding the secondary impact fee, but urged a review of the disparity between commercial and residential fees.

Seeing no further public comments the hearing was closed at 8:56 p.m.

Councilmember Nehring asked staff for clarification regarding road improvements. Community Development Director Hirashima responded that the City had identified where connections should be and that development would construct the roads. This could take many years because it would be developed parcel by parcel, but the City already has received dedication of 40th Street connection from 71st to 83rd, which is a significant section.

Chief Administrative Officer Swenson talked about how this property came into the City and the commitments to make sure the road fees and the mitigation fees are sufficient to reflect a holistic master plan. The congestion that exists now is a result of lack of planning by the County in the past. The City is master planning this area to ensure that it gets done right.

Kevin Nielsen discussed the engineering that went into the proposal. He explained why simply widening the existing roads would not be an ideal solution for the volume of traffic in the area. He commented that they have worked with Perteet to meet the best engineering solutions for the development into 2025.

Councilmember Rasmussen emphasized the importance of bike/pedestrian paths for non-motorized transportation. She also commented that since this area is largely in the Lake Stevens School District, the City has an obligation to give them better access to their schools and related activities. The connection to 92 is important for this. She stated that the goal would be to get people to travel on 67th rather than Sunnyside which would require it to go to five lanes.

Councilmember Seibert asked about interim improvements at 44th. Kevin Nielsen replied that they could look at it, but they would need to work with property owners regarding right of way. They may be able to do some minor safety issues, which would help the situation.

Councilmember Seibert discussed how a poor working relationship with the County and lack of planning in the past created some of the transportation issues that are being dealt with now.

He then asked about plans for the 5-leg intersection at 40th and 67th/71st. Mr. Nielsen commented that this would probably not be a 5-leg intersection. This is still conceptual, but 67th would probably be tied in a little further to the north of the intersection.

Councilmember Seibert asked how they could make sure people are properly notified as things progress. Gloria Hirashima stated that as development applications come in, public notification will occur. The City will continue to work on overall alignment with engineering. This will be posted on the website. People can also request to be placed on the planning commission group list.

Councilmember Seibert commented that growth would have occurred in this area even if they had not been annexed. The difference would have been that the careful consideration of traffic flow would not have occurred. He noted that the City is stuck with trying to do the best they can with the area that is left.

Councilmember Soriano referred to the Perteet study traffic volume count. He asked if there was a possibility that the state would share in that cost. City Engineer/Assistant Public Works Director Nielsen said yes for TIB, but no for WSDOT.

Councilmember Soriano asked why they couldn't go straight through to 83rd from SR92. Mr. Nielsen explained that requirements from WSDOT limit the City's options. There are restrictions about the distance from Highway 9 to the next nearest intersection. Councilmember Soriano asked about 83rd and 528. Mr. Nielsen explained that the difference is that the City is asking for a break in access at Highway 9.

Councilmember Seibert asked about other options such as using 87th or 83rd for the north-south collector. Gloria Hirashima explained that they had considered these. Perteet reviewed both of those options and determined that they would not be feasible.

Motion made by Councilmember Nehring, seconded by Councilmember Seibert to approve the Planning Commission's recommendation to adopt the East Sunnyside/Whiskey Ridge subarea plan, development regulations and areawide rezones, to accept the staff's recommendation regarding the citywide traffic impact fee and to direct staff to make the necessary revisions to the plans prior to adoption by city ordinance on May 14, including the clarifications from the Community Development Director. **Motion** passed unanimously (7-0).

Motion made by Councilmember Rasmussen, seconded by Councilmember Phillips, to have staff draft a resolution to review the impact fees during the Comprehensive Plan review. **Motion** passed unanimously (7-0).

CURRENT BUSINESS

None.

NEW BUSINESS

None.

LEGAL

10. Recovery Contract for Water; Powell-Smokey Point, LLC.

Motion made by Councilmember Wright, seconded by Councilmember Vaughan to approve the Recovery Contract No. 275. **Motion** passed unanimously (7-0).

ORDINANCES AND RESOLUTIONS

11. An Ordinance of the City of Marysville Affirming the Decision of the Hearing Examiner and Rezoning Properties Owned by Elwyn & Gulser Wood and Michael Snyder Amending the Official Zoning Map of the City.

Motion made by Councilmember Soriano, seconded by Councilmember Nehring, to approve Ordinance No. 2693. **Motion** passed unanimously (7-0).

(Councilmember Phillips left the room.)

MAYOR'S BUSINESS

Mayor Kendall said he attended the ribbon-cutting/dedication for the new filtration system.

STAFF BUSINESS

Paul Roberts reviewed recent legislative successes.

(Councilmember Phillips returned to the room)

Director Roberts thanked Adam, Kyle, and the Community Development Team for their work on the Earth Day festivities. He also thanked Kevin Nielsen for his hard work on the Whiskey Ridge/Sunnyside project.

Gloria Hirashima thanked the Council for the good questions and for their support of the plan.

Mary Swenson thanked Gloria Hirashima, Paul Roberts, Kevin Nielsen, Grant Weed, all staff members who worked hard and the Council for making the difficult decisions.

Chief Smith explained that the City is having a hard time getting academy slots. They hope that additional funding from the legislature and plans for a north county academy will help with this.

CALL ON COUNCILMEMBERS

Jeff Vaughan thanked staff for their hard work on the master plan. He expressed his support of master planning.

Donna Wright concurred. She discussed an issue brought to her by citizens regarding intersection backups at 88th and 36th. Chief Smith indicated that they would look into this. Councilmember Wright announced that she would be out of town for the rest of the week and would be unable to attend the Public Safety Committee meeting.

Jeff Seibert thanked staff for their hard work. He discussed the impact of the annexation tax. He also commented on the implications of the rebate of traffic impact fees. They are looking at modifying this or making the threshold higher so that this is available to some of the larger stores because this pays for itself within a year's time and appears to be valuable to the City.

Carmen Rasmussen reported that she attended the Washington Recreation and Parks Association Conference. One of the classes she attended was regarding transportation and active living, by David Tanner with WSDOT Bicycle and Pedestrian Transportation. This was very informative and she invited him to come to Marysville for a presentation. Ms. Rasmussen was very encouraged by what she heard in the class.

Lee Phillips thanked staff for their hard work. He expressed concern about the complaints heard at the hearing regarding lack of notification. He wondered how they could encourage more public participation. He announced that he is engaged with a date in October still to be determined.

John Soriano thanked and complimented the staff who manned the Earth Day celebrations.

Jon Nehring thanked staff for all the work done on the plan. He also thanked Judy and staff for the volunteer reception. He commented that the sales tax rebate and

other things Community Development have done have had a huge impact on Marysville's image as friendly to business.

Jeff Seibert added that the Firemen's Banquet was excellent.

Mayor Kendall said he also attended the groundbreaking at the new school on Saturday. He thanked staff for a job well done and thanked Council for their continual support.

INFORMATION ITEMS

None.

ADJOURNMENT

Seeing no further business, Mayor Kendall adjourned the meeting at 10:00 p.m.

Approved this _____ day of _____, 2007.

_____	_____	_____
Mayor Dennis Kendall	Deputy City Clerk Lillie Lein	Recording Secretary Laurie Hugdahl

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Claims	AGENDA SECTION:
PREPARED BY: Sandy Langdon, Finance Director	AGENDA NUMBER:
ATTACHMENTS: Claims Listings	APPROVED BY: MAYOR CAO
BUDGET CODE:	AMOUNT:

Please see attached.

RECOMMENDED ACTION: The Finance and Executive Departments recommend City Council approve the April 25, 2007 Period 4 claims in the amount of $344,751.95 paid by Check No.'s 38660 through 38809.
COUNCIL ACTION:

DATE: 4/24/2007
TIME: 10:39:48AM

CITY OF MARYSVILLE
INVOICE LIST
FOR INVOICES FROM 4/24/2007 TO 4/25/2007

CHK #	VENDOR	ITEM DESCRIPTION	ACCOUNT #	ITEM AMOUNT
38660	AMERICAN PLANNING ASSOCIATION	MEMBERSHIP-LIBBY GRAGE	00102020.549000.	200.00
	AMERICAN PLANNING ASSOCIATION	MEMBERSHIP-CHERYL DUNGAN	00102020.549000.	245.00
	AMERICAN PLANNING ASSOCIATION	MEMBERSHIP-CHRIS HOLLAND	00102020.549000.	245.00
38661	AMERICAN SOCCER COMPANY	9 STRIPE V-NECK REF SHIRTS,	00105120.531030.	179.49
38662	AMSAN SEATTLE	JANITORIAL SUPPLIES-CITY HALL	00103530.531400.	61.69
	AMSAN SEATTLE	DEGREASER	501.141100.	165.53
38663	ARENDS, VINCE & VERONICA	UB 271200000002 12606 52ND DR	401.122110.	21.95
38664	ASCOM HASLER/GE CAP PROG	LASTEC ROTARYMOWER LEASE	42047165.545000.	554.00
	ASCOM HASLER/GE CAP PROG	TOTO REELMASTER 5400D LEASE	42047165.545000.	1,188.90
38665	WASPC	ELECTRONIC HOME MONITORING-MA	00103960.551000.	1,880.25
38666	BANK OF AMERICA	FLIGHT REIMBURSEMENT	00100020.549000.	88.16
	BANK OF AMERICA	CONFERENCE REIMBURSEMENT	00100020.549000.	435.00
	BANK OF AMERICA		00100110.549000.	57.20
	BANK OF AMERICA		00103010.543000.	27.20
	BANK OF AMERICA		00105380.543000.	27.20
	BANK OF AMERICA	FLIGHT REIMBURSEMENT	10111160.549000.	44.08
	BANK OF AMERICA	CONFERENCE REIMBURSEMENT	40143410.549000.	955.00
	BANK OF AMERICA	FLIGHT REIMBURSEMENT	40143410.549020.	220.40
	BANK OF AMERICA		40145040.549000.	44.08
	BANK OF AMERICA		41046060.549000.	44.08
38667	THE BANK OF NEW YORK	ADMINISTRATION FEE	45000085.549000.	301.75
38668	BARRON HEATING AIR CONDITIONING	WATER LEAKING CEILING-LIBRARY	00112572.548000.	659.14
	BARRON HEATING AIR CONDITIONING	REPAIR SQUEALING BELT-LIBRARY	00112572.548000.	830.03
	BARRON HEATING AIR CONDITIONING	REPLACE T-STAT-WWTP	40142480.548000.	575.48
38669	TERI BELL-MCCANN	MILEAGE/MEAL TRAINING	40143410.549000.	18.15
38670	OWEN EQUIPMENT COMPANY	NOZZLE CB CLEANER	40142080.531000.	246.58
38671	DIANE BERGMAN	4X6 MAT BOARDS-RIBBON CUTTING	40220594.563000.W0003	65.06
38672	BICKFORD FORD-MERCURY	16" WHEELS	501.141100.	327.06
38673	BILLS BLUEPRINT INC	COUNTY FILES	00102020.549000.	59.88
	BILLS BLUEPRINT INC		00102020.549000.	89.68
38674	BLUE MARBLE ENVIRONMENTAL	PROF. SERV. RECYCLING PROGRAM	41046290.541000.	3,034.14
38675	BLUMENTHAL UNIFORMS & EQUIPMENT	TIE BAR, BELT- CHIEF SMITH	00103010.526000.	30.30
	BLUMENTHAL UNIFORMS & EQUIPMENT	MAG POUCH BERETTA-LAMOUREAUX	00103010.526000.	81.49
	BLUMENTHAL UNIFORMS & EQUIPMENT	UNIFORM SHIRTS, BELT- R. SMITH	00103010.526000.	143.45
	BLUMENTHAL UNIFORMS & EQUIPMENT	UNIFORM PANTS, HAT-CHIEF SMITH	00103010.526000.	181.59
	BLUMENTHAL UNIFORMS & EQUIPMENT	COLLAR BRASS, 2 STARS	00103222.526000.	60.71
	BLUMENTHAL UNIFORMS & EQUIPMENT	UNIFORM SHIRT- D. DREYER	00104230.526000.	54.35
38676	BOB BARKER COMPANY	INMATE CLOTHING	00103960.531000.	667.13
38677	BRATWEAR	JUMPSUIT-OATES	00103222.526000.	449.89
38678	BRIM TRACTOR COMPANY, INC.	FUEL TANK HOSE-#253	50100065.534000.	77.00
	BRIM TRACTOR COMPANY, INC.	FUEL TANK HOSE- #253	50100065.534000.	78.08
38679	DAVE BUTTON	GUIDE- RIVER FLOAT TRIP	00105120.541020.	1,275.75
38680	TONY CAMPBELL	REFUND DEPOSIT- JENNINGS BARN	001.239100.	58.00
38681	CAPTAIN DIZZYS EXXON	CAR WASH	00102020.543000.	4.50
	CAPTAIN DIZZYS EXXON	CAR WASHES- POLICE	00103121.548000.	4.50
	CAPTAIN DIZZYS EXXON		00103222.548000.	31.50
	CAPTAIN DIZZYS EXXON		00104230.548000.	9.00
38682	CARR'S ACE HARDWARE	MISC. HARDWARE SUPPLIES	10110564.531000.	47.10
	CARR'S ACE HARDWARE	LIGHT FIXTURE, COUPLINGS	10110564.548000.	254.39
	CARR'S ACE HARDWARE	D BATTERIES, BUSHINGS	40142080.531000.	24.61
38683	CASCADE COFFEE INC	COFFEE SERVICE, SUPPLIES-KBSCC	10605250.549000.	70.00
38684	CASCADE MAILING	UB MAILING	00143523.542000.	193.28

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CITY OF MARYSVILLE
INVOICE LIST
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CHK #	VENDOR	ITEM DESCRIPTION	ACCOUNT #	ITEM AMOUNT
38684	CASCADE MAILING	UB MAILING	00143523.542000.	216.01
38685	CASCADE NATURAL GAS	SERVICE-STILLY FILTER PLANT	40141580.531000.	1,323.72
38686	PETER COLLERAN	TWO CASH TILLS- PRO SHOP	42047267.531000.	217.03
38687	JUDY COONTS	SUPPLIES FOR VAR	00100110.549000.	304.64
38688	CO-OP SUPPLY	LUBRICANT	00105380.531000.	3.55
	CO-OP SUPPLY	MISC. MOWING TRAILER SUPPLIES	40142080.548000.	19.05
38689	WA DEPT OF CORRECTIONS	INMATE MEALS	00103960.531250.	1,466.05
38690	WA DEPT OF CORRECTIONS	WORK CREW, SUPERVISOR, TRANSP	00105380.549000.	684.00
38691	DICKS TOWING INC	EVIDENCE IMPOUND	00103222.541000.	43.44
38692	DIJULIO DISPLAYS INC	CLEAR REPLACEMENT BULBS	00105380.531000.	1,143.23
38693	DORFMAN-PACIFIC CO INC	CAPS: STRUCTURED, SANDWICH	420.141100.	389.58
38694	E&E LUMBER INC	MISCELLANEOUS FASTENERS	00103222.531000.	2.60
	E&E LUMBER INC	33" MARKING STICK, "STRIPE"	00103222.531000.	42.07
	E&E LUMBER INC	DRAIN OUT	00105380.531000.	4.11
	E&E LUMBER INC	CEMENT,PRIMER,TRANSPLANTER	00105380.531000.	15.20
	E&E LUMBER INC	PVC COUPLINGS	00105380.531000.	17.97
	E&E LUMBER INC	FASTENERS, DRILL BIT	00105380.531000.	24.94
	E&E LUMBER INC	PAINT COVERS, TRAY, PRO ARM	00105380.531000.	43.38
	E&E LUMBER INC	CONCRETE, TARP, BLOCKS	00105380.531000.	57.91
	E&E LUMBER INC	E-BOLT, QUIK LINKS,PULLEY	00105380.531000.	70.79
	E&E LUMBER INC	PADLOCKS, TELESCOPING LOPPER	40142080.548000.	78.09
38695	EDGE ANALYTICAL INC	LAB SAMPLES-NW TRANSMISSION	40140780.541000.	108.00
38696	ESRI	ARCVIEW LICENSES X 3	40143410.535000.	3,902.40
38697	ETONIC WORLDWIDE LLC	GOLF SHOES	420.141100.	1,836.18
38698	THE DAILY HERALD COMPANY	AD FOR P/T SOCCER REF	00105120.544000.	194.52
	THE DAILY HERALD COMPANY	AD FOR PARKS SEASONAL-ONGOING	00105120.544000.	970.84
	THE DAILY HERALD COMPANY	AD FOR SOLID WASTE COLLECTOR	40143410.544000.	261.18
	THE DAILY HERALD COMPANY	AD FOR SURFACE WATER TECH	40143410.544000.	544.44
	THE DAILY HERALD COMPANY	AD FOR GC GROUNDSKEEPER	42047061.544000.	108.30
	THE DAILY HERALD COMPANY	AD FOR COMPUTER SUPPORT TECH	50300090.549000.	544.44
38699	FAMILY KARATE RONIN DOJO	TRAINING FACILITY RENTAL	00103222.545000.	900.00
38700	FASCHING, DEBBIE & DONALD	UB 840067000000 7650 68TH ST N	401.122110.	22.31
38701	FINANCIAL CONSULTING GROUP, INC.	SERVICES THRU MARCH 2007	41046060.541000.	2,230.00
	FINANCIAL CONSULTING GROUP, INC.		41046060.541000.	3,800.00
38702	FEDEX	PACKAGE SENT TO HEALTH DEPT.	40143610.549000.	14.36
38703	FERRELLGAS	120 GALLON TANK RENTAL	10110130.531000.	13.56
	FERRELLGAS		10110564.531000.	13.56
	FERRELLGAS		40140980.531000.	13.56
	FERRELLGAS		41046060.531000.	13.57
38704	CHRIS FLOYD	INSTRUCTOR-KINDERMUSIK 3RD PAY	00105120.541020.	2,533.99
38705	FROTHINGHAM, THERESA	UB 651051800000 10518 63RD DR	401.122110.	182.11
38706	GENERAL CHEMICAL CORP	ALUMINUM SULFATE- 11.87 TONS	40142480.531320.	3,246.36
38707	GLORIA JEANE HAULING & HWY REHAB IN	ROAD GRINDING 3/26/07	40142080.548000.	1,500.00
38708	GRAY AND OSBORNE	PAY ESTIMATE #7	40220594.563000.W0607	245.26
38709	GRAYBAR ELECTRIC CO INC	ELECTRICAL TESTER	00105380.535000.	134.26
38710	GREATER BAY CAPITAL	MAIL MACHINE 2006 PROPERTY TAX	00100020.542000.	13.82
	GREATER BAY CAPITAL		00102020.542000.	22.13
	GREATER BAY CAPITAL		10111230.542000.	2.76
	GREATER BAY CAPITAL		40143410.542000.	11.06
	GREATER BAY CAPITAL		41046170.542000.	2.76
	GREATER BAY CAPITAL		50100065.545000.	1.38
	GREATER BAY CAPITAL		50200050.545000.	1.38

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CITY OF MARYSVILLE
INVOICE LIST
FOR INVOICES FROM 4/24/2007 TO 4/25/2007

CHK #	VENDOR	ITEM DESCRIPTION	ACCOUNT #	ITEM AMOUNT
38711	GREENSHIELDS INDUSTRIAL SUPPLY	HYDRAULIC HOSE COUPLERS	501.141100.	300.66
	GREENSHIELDS INDUSTRIAL SUPPLY		501.141100.	420.92
38712	JUDY HARCROW	REFUND DEPOSIT JENNINGS BARN	001.239100.	58.00
38713	HAWKINS, MEL & SHIRLEY	UB 570703800001 17610 29TH AVE	401.122110.	191.33
38714	HD FOWLER COMPANY	FLANGE GASKETS	401.141400.	29.06
	HD FOWLER COMPANY		401.141400.	130.74
	HD FOWLER COMPANY	9.4" X 12" REPAIR CLAMPS	401.141400.	298.52
	HD FOWLER COMPANY	FLANGE GASKETS	401.141400.	363.17
	HD FOWLER COMPANY	POLYMER COVERS	401.141400.	490.07
	HD FOWLER COMPANY	1" RESETTERS	401.141400.	726.62
	HD FOWLER COMPANY	POLYMER COVERS, METER BOX BASE	401.141400.	1,218.93
	HD FOWLER COMPANY	2" COMBINATION AIR VALVE	40140980.548000.	514.29
38715	HD SUPPLY WATERWORKS, LTD	TRANSITION GASKET	40140580.531000.	5.53
38716	HDR ENGINEERING, INC.	PAY ESTIMATE #3	30500030.563000.R0502	41,750.92
38717	CHRIS HORNUNG	MILEAGE-DV TRAINING BELLINGHAM	00100050.543000.	65.47
38718	NOEL NIETO	INTERPRETER SERVICES	00102515.549000.	128.60
38719	IOS CAPITAL	COPER RENTAL 4/1-4/30/07	00100020.545000.	125.63
	IOS CAPITAL	COPIER RENTAL- COURT	00100050.548000.	156.47
	IOS CAPITAL	COPIER RENTAL- CITY HALL	00100310.549000.	144.97
	IOS CAPITAL		00101023.545000.	217.45
	IOS CAPITAL		00101130.548000.	217.45
	IOS CAPITAL	COPIER RENTAL- PW	00102020.545000.	31.40
	IOS CAPITAL	COPER RENTAL 4/1-4/30/07	00102020.545000.	219.83
	IOS CAPITAL	COPIER-PATROL 4/07- 5/06/07	00103222.545000.	64.08
	IOS CAPITAL	COPIER- CUSTODY 4/6 -5/5/07	00103960.545000.	186.92
	IOS CAPITAL	COPIER- RECORDS 4/6- 5/5/07	00104190.545000.	201.57
	IOS CAPITAL	COPIER RENTAL- RECORDS	00104190.545000.	216.79
	IOS CAPITAL	COPIER- RECORDS 4/1-4/30/07	00104190.545000.	453.49
	IOS CAPITAL	COPIER 9/30/06-10/29/06	00105380.545000.	102.65
	IOS CAPITAL	COPIER- 1/30/07 TO 2/27/07	00105380.545000.	324.84
	IOS CAPITAL	COPIER- 12/30/06 TO 1/29/07	00105380.545000.	340.02
	IOS CAPITAL	COPIER RENTAL- PARKS	00105380.545000.	346.93
	IOS CAPITAL	COPIER 10/30/06- 11/29/06	00105380.545000.	422.20
	IOS CAPITAL	COPIER- 11/30/06 TO 12/29/06	00105380.545000.	591.78
	IOS CAPITAL	COPIER RENTAL- CITY HALL	00143523.545000.	869.81
	IOS CAPITAL	COPIER RENTAL -PW	10111230.545000.	113.91
	IOS CAPITAL	COPIER- WWTP	40142480.545000.	136.72
	IOS CAPITAL	COPIER RENTAL- PW	40143410.545000.	31.40
	IOS CAPITAL	COPIER RENTAL -PW	40143410.545000.	113.91
	IOS CAPITAL	COPER RENTAL 4/1-4/30/07	40143410.545000.	219.83
	IOS CAPITAL		50100065.545000.	31.40
	IOS CAPITAL	COPIER RENTAL 4/1 - 4/30/07	50100065.545000.	102.06
	IOS CAPITAL	COPER RENTAL 4/1-4/30/07	50200050.545000.	31.40
38720	INTERNATIONAL SOCIETY OF ARBORICULT	MEMBERSHIP DUES	00102020.549000.	155.00
	INTERNATIONAL SOCIETY OF ARBORICULT	TRAINING MATERIAL	00102020.549000.	190.05
38721	INTERNATL ASSOC. CHIEFS OF POLICE	MEMBERSHIP DUES- CHIEF SMITH	00103010.541000.	100.00
38722	IRON MOUNTAIN QUARRY LLC	CRUSHED ROCK - 63.07 TONS	10110130.531000.	479.02
	IRON MOUNTAIN QUARRY LLC	CRUSHED ROCK-226.21 TONS	10110130.531000.	1,718.06
38723	RUSS IRVIN	FUEL, MEALS-TRAINING IN YAKIMA	00103960.543000.	17.78
	RUSS IRVIN		00103960.543000.	34.51
38724	JONES & CO. PETS	36" GOLD EX PEN 00133	00104230.531000.	81.36
38725	JP COOKE COMPANY,THE	1000 "S" HOOKS-ANIMAL LICENSES	001.231700.	17.82

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CITY OF MARYSVILLE
INVOICE LIST
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CHK #	VENDOR	ITEM DESCRIPTION	ACCOUNT #	ITEM AMOUNT
38726	KENNEWICK POLICE DEPT.	DAVE COLEMAN-NAMOA REGIST FEE	00103222.549100.	170.00
	KENNEWICK POLICE DEPT.	DOUG LEE- NAMOA REGIST. FEE	00103222.549100.	170.00
	KENNEWICK POLICE DEPT.	JAMES MAPLES-NAMOA REGIST FEE	00103222.549100.	170.00
38727	KESSELRINGS	RIFLE AMMUNITION	00103740.535000.	2,749.68
	KESSELRINGS	REMINGTON RIFLES, AMMO,SLING	10308521.535000.	5,347.90
38728	KUSTOM SIGNALS INC	MOTORCYCLE LAS RADAR	00103222.549000.	2,346.45
38729	ROBERT LAMOUREUX	COFFEE- SWEARING IN OF CHIEF	00103010.549000.	26.04
38730	KAREN LAMPHERE	NUTRITION INSTRUCTOR	00105120.541020.	75.00
38731	LANE & ASSOCIATES	PAY ESTIMATE #5	30500030.563000.R0301	12,976.03
38732	LASTING IMPRESSIONS INC	PRINTED SHIRTS, COATS & HATS	00105380.526000.	2,510.22
	LASTING IMPRESSIONS INC	UNFORM SHIRTS & JACKETS	42047165.526000.	878.96
38733	LEGEND DATA SYSTEMS INC	BADGE HOLDERS	00100310.531000.	42.36
38734	LILLIE LEIN	MILEAGE-MEETINGS MERCER ISLAND	00101130.543000.	79.12
38735	WA STATE LEOFF EDUCATION ASSOCIATIOI	WA STATE LEOFF CONF-T. SMITH	00100310.549000.	310.00
38736	DEPT OF LICENSING	CARLSON, WILLIAM-CPL ORIGINAL	001.237020.	18.00
	DEPT OF LICENSING	HILL, MICHAEL- CPL RENEWAL	001.237020.	18.00
	DEPT OF LICENSING	LANGDON,TRACY- ORIGINAL CPL	001.237020.	18.00
	DEPT OF LICENSING	LONNEKER, JAY-CPL RENEWAL	001.237020.	18.00
	DEPT OF LICENSING	MENNOW, KATIE- CPL ORIGINAL	001.237020.	18.00
	DEPT OF LICENSING	TANNER, BRANDON- ORIGINAL CPL	001.237020.	18.00
38737	MARYSVILLE MUNICIPAL COURT	BANK CARD FEES	00100050.541000.	389.13
38738	MARYSVILLE GLOBE	ORDINANCE, NOTICES	00100310.544000.	47.74
	MARYSVILLE GLOBE		00102020.544000.	43.40
	MARYSVILLE GLOBE		00102020.544000.	47.74
	MARYSVILLE GLOBE		00102020.544000.	52.08
	MARYSVILLE GLOBE	AD FOR PARKS SEASONAL (ONGOING	00105120.544000.	583.40
	MARYSVILLE GLOBE	AD FOR MAINTENANCE WORKER II	40143410.544000.	89.15
38739	MARYSVILLE PAINT & DECORATING	4 GAL CHROME GREEN PAINT	00105380.531000.	158.80
38740	MARYSVILLE PRINTING	DATE STAMP FRONT COUNTER	00100020.531000.	14.28
	MARYSVILLE PRINTING	8 RMS WHITE LINEN PAPER- PG 2	00100020.531000.	63.61
	MARYSVILLE PRINTING	DATE STAMP FRONT COUNTER	00102020.531000.	14.28
	MARYSVILLE PRINTING	8 RMS WHITE LINEN PAPER- PG 2	00102020.531000.	63.61
	MARYSVILLE PRINTING	6000 FISHING DERBY FLYERS	00105120.531050.	211.58
	MARYSVILLE PRINTING	DATE STAMP FRONT COUNTER	40143410.531000.	14.30
	MARYSVILLE PRINTING	8 RMS WHITE LINEN PAPER- PG 2	40143410.531000.	63.65
	MARYSVILLE PRINTING	BUSINESS CARDS- CHRIS BROWN	50300090.531000.	113.82
38741	MARYSVILLE SCHOOL DISTRICT #25	BASKETBALL COACHES-CEDARCREST	00105120.531040.	8.75
	MARYSVILLE SCHOOL DISTRICT #25	BASKETBALL SKILLS-CEDARCREST	00105120.531040.	120.00
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL-KELLOGG MARS	00105120.531040.	126.00
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL DRAFT-MJHS	00105120.531040.	127.00
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL-LIBERTY	00105120.531040.	165.50
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL-PINEWOOD	00105120.531040.	171.50
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL-CASCADE	00105120.531040.	213.50
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL-SHOULTES	00105120.531040.	288.00
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL-SUNNYSIDE	00105120.531040.	339.50
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL-MARSHALL	00105120.531040.	471.00
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL-MJHS	00105120.531040.	1,043.67
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL-CEDARCREST	00105120.531040.	1,222.50
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL-MMS	00105120.531040.	1,459.25
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL-QUIL CEDA	00105120.531040.	1,465.75
	MARYSVILLE SCHOOL DISTRICT #25	YOUTH BASKETBALL-ALLEN CREEK	00105120.531040.	1,700.75
	MARYSVILLE SCHOOL DISTRICT #25	ULTIMATE BASKETBALL CAMP 12/27	00105120.531090.	158.50

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CITY OF MARYSVILLE
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CHK #	VENDOR	ITEM DESCRIPTION	ACCOUNT #	ITEM AMOUNT
38742	CITY OF MARYSVILLE	6915 ARMAR RD -WATER	00105380.547000.	38.10
	CITY OF MARYSVILLE	6915 ARMAR RD-WTR, STORMWATER	00105380.547000.	73.93
	CITY OF MARYSVILLE	5315 64TH AV NE-WATER, SEWER	00105380.547000.	190.80
	CITY OF MARYSVILLE	6915 ARMAR RD- WATER,SEWER	00105380.547000.	190.80
	CITY OF MARYSVILLE	6915 ARMAR RD- WATER, SEWER	00105380.547000.	296.30
	CITY OF MARYSVILLE	6915 ARMAR RD-WATER,GBG,SEWER	00105380.547000.	2,371.90
	CITY OF MARYSVILLE	6120 GROVE ST-W,G,S, STORMWTR	00112572.547000.	861.90
38743	MCLOUGHLIN & EARDLEY CORP	STROBE BULB REPLACEMENTS	501.141100.	76.67
	MCLOUGHLIN & EARDLEY CORP		501.231700.	-6.01
38744	MEDICAL DIAGNOSTIC SPECIALTIES	MEDICAL EVALUATION-SOREN	00103010.551000.	318.00
38745	MONTEITH, DAN & CHA	UB 460490000002 5705 143RD PL	401.122110.	41.88
38746	MORGAN, DENNIS & ROSEMARIE	UB 761282000001 7225 63RD PL N	401.122110.	212.90
38747	MURPHY, THOMAS	UB 331481500000 14815 45TH DR	401.122110.	60.93
38748	MUTUAL MATERIALS CO	MATERIALS- LANDSCAPE WALL	00105380.531000.	1,670.78
38749	NELSON TRUCK EQUIP CO., INC	CUSTOM RUNNING BOARDS- #249	50100065.548000.	742.70
38750	NEWMAN TRAFFIC SIGNS	LIFT STATION SIGNS	401.231700.	-31.50
	NEWMAN TRAFFIC SIGNS		40142280.549000.	402.06
38751	MARTY NORSBY	MILEAGE-ELECTRICITY CLASS	50200050.543000.	49.00
38752	NORTH SOUND HOSE & FITTINGS	DISCHARGE HOSE, COUPLINGS	40140980.531000.	165.18
38753	NORTHWEST CASCADE INC	HONEY BUCKET RENTAL- DEERING	00105380.545000.	102.18
38754	OFFICE DEPOT	CREDIT MEMO-RETURN CARDSTOCK	00100020.531000.	-7.44
	OFFICE DEPOT	DRAWER ORGANIZER	00100020.531000.	3.12
	OFFICE DEPOT	CHAIRMATS, ENVELOPES, CARDSTCK	00100020.531000.	6.54
	OFFICE DEPOT		00100020.531000.	8.12
	OFFICE DEPOT	DATE STAMP	00100020.531000.	8.48
	OFFICE DEPOT	CHAIRMATS, ENVELOPES, CARDSTCK	00100020.531000.	9.00
	OFFICE DEPOT		00100020.531000.	11.19
	OFFICE DEPOT	ENGINEERING PADS	00100020.531000.	13.50
	OFFICE DEPOT	PAPER, CARDSTOCK, INK	00100020.531000.	35.11
	OFFICE DEPOT	COPIER PAPER, INK CARTRIDGES	00100020.531000.	46.11
	OFFICE DEPOT	PAPER, CARDSTOCK, INK	00100020.531000.	141.57
	OFFICE DEPOT	OFFICE SUPPLIES	00100050.531000.	102.01
	OFFICE DEPOT	CREDIT MEMO-RETURN CARDSTOCK	00102020.531000.	-32.24
	OFFICE DEPOT	CHAIRMATS, ENVELOPES, CARDSTCK	00102020.531000.	6.54
	OFFICE DEPOT	PAPER, CARDSTOCK, INK	00102020.531000.	24.80
	OFFICE DEPOT	PENS	00102020.531000.	34.12
	OFFICE DEPOT	PAPER, CARDSTOCK, INK	00102020.531000.	35.11
	OFFICE DEPOT	COPIER PAPER, INK CARTRIDGES	00102020.531000.	46.11
	OFFICE DEPOT	INK CARTRIDGE, CLIPBOARDS	00102020.531000.	107.62
	OFFICE DEPOT	HANGING LTR POCKET, FOLDERS	00103010.531000.	23.63
	OFFICE DEPOT	LASERJET CARTRIDGE, CDR 100-PK	00103121.531000.	147.80
	OFFICE DEPOT	COPY PAPER, OFFICE SUPPLIES	00103222.531000.	229.40
	OFFICE DEPOT		00103960.531000.	8.08
	OFFICE DEPOT	12X15 ENVELOPES W/CLASP	00104190.531000.	40.51
	OFFICE DEPOT	COPY PAPER, OFFICE SUPPLIES	00104190.531000.	239.97
	OFFICE DEPOT	HANGING LTR POCKET, FOLDERS	00104190.531000.	536.88
	OFFICE DEPOT	PAPER, CARDSTOCK, INK	10111230.531000.	9.35
	OFFICE DEPOT	CHAIRMATS, ENVELOPES, CARDSTCK	10111230.531000.	14.75
	OFFICE DEPOT	LASER JET PRINTER-WWTP	40142480.531000.	435.59
	OFFICE DEPOT	CREDIT MEMO-RETURN CARDSTOCK	40143410.531000.	-7.44
	OFFICE DEPOT	DRAWER ORGANIZER	40143410.531000.	3.12
	OFFICE DEPOT	CHAIRMATS, ENVELOPES, CARDSTCK	40143410.531000.	6.55

DATE: 4/24/2007
TIME: 10:39:48AM

CITY OF MARYSVILLE
INVOICE LIST
FOR INVOICES FROM 4/24/2007 TO 4/25/2007

CHK #	VENDOR	ITEM DESCRIPTION	ACCOUNT #	ITEM AMOUNT
38754	OFFICE DEPOT	CHAIRMATS, ENVELOPES, CARDSTCK	40143410.531000.	8.12
	OFFICE DEPOT		40143410.531000.	9.01
	OFFICE DEPOT		40143410.531000.	11.19
	OFFICE DEPOT	DATE STAMP	40143410.531000.	21.21
	OFFICE DEPOT	DOOR KNOB HANGERS	40143410.531000.	24.11
	OFFICE DEPOT	PAPER, CARDSTOCK, INK	40143410.531000.	35.12
	OFFICE DEPOT	COPIER PAPER, INK CARTRIDGES	40143410.531000.	46.11
	OFFICE DEPOT	PAPER, CARDSTOCK, INK	40143410.531000.	46.27
	OFFICE DEPOT	CHAIRMATS, ENVELOPES, CARDSTCK	40143410.531000.	82.63
	OFFICE DEPOT	CREDIT MEMO-RETURN CARDSTOCK	50100065.531000.	-1.25
	OFFICE DEPOT	CHAIRMATS, ENVELOPES, CARDSTCK	50100065.531000.	2.03
	OFFICE DEPOT	PAPER, CARDSTOCK, INK	50100065.531000.	5.86
	OFFICE DEPOT	DATE STAMP	50100065.531000.	6.37
	OFFICE DEPOT	COPIER PAPER, INK CARTRIDGES	50100065.531000.	7.70
	OFFICE DEPOT		50100065.531000.	21.64
	OFFICE DEPOT	CREDIT MEMO-RETURN CARDSTOCK	50200050.531000.	-1.24
	OFFICE DEPOT	CHAIRMATS, ENVELOPES, CARDSTCK	50200050.531000.	2.03
	OFFICE DEPOT	PAPER, CARDSTOCK, INK	50200050.531000.	5.85
	OFFICE DEPOT	DATE STAMP	50200050.531000.	6.36
	OFFICE DEPOT	COPIER PAPER, INK CARTRIDGES	50200050.531000.	7.70
	OFFICE DEPOT		50200050.531000.	21.64
38755	ORIENTAL TRADING CO INC	CRAFT SUPPLIES- ASAP PROGRAM	00105120.531070.	118.40
	ORIENTAL TRADING CO INC	CRAFT SUPPLIES-SUMMER DAY CAMF	00105120.531080.	255.53
38756	OVERALL LAUNDRY SERVICES INC	MAT CLEANING- WWTP	40142480.598100.	7.91
	OVERALL LAUNDRY SERVICES INC	MAT CLEANING-PW ADMIN BLDG	40143410.549000.	87.87
	OVERALL LAUNDRY SERVICES INC	MAT CLEANING-MEZZANINE	40143780.549000.	13.55
	OVERALL LAUNDRY SERVICES INC		40143780.549000.	20.21
	OVERALL LAUNDRY SERVICES INC	UNIFORM CLEANING- MECHANICS	50100065.526000.	52.67
38757	PAC RIM CODE SERVICES	PLAN REVIEW SERVICE	00102020.541000.	5,688.92
38758	PACIFIC POWER BATTERIES	DEEP CYCLE, 115 AMP BATTERIES	10110070.541000.	422.07
38759	PACIFIC POWER PRODUCTS	ROTARY BLADES	42047165.548000.	149.67
38760	PACIFIC TOPSOILS INC	DUMP ASPHALT-36, CONCRETE-12	10110130.531000.	435.24
	PACIFIC TOPSOILS INC	DUMP CONCRETE (QTY 8)	10110361.531000.	44.95
	PACIFIC TOPSOILS INC	DUMP CONCRETE QTY 8	10110361.531000.	44.95
	PACIFIC TOPSOILS INC	DUMP CONCRETE (QTY 20)	10110361.531000.	112.38
	PACIFIC TOPSOILS INC	DUMP CONCRETE QTY 20	10110361.531000.	112.38
38761	PATRICKS PRINTING	NOTICE OF HEARINGS	00100050.531000.	156.83
	PATRICKS PRINTING	BUSINESS CARDS/ PROBATION CARD	00100050.531000.	181.36
	PATRICKS PRINTING	COURT DATE NOTICES	00100050.531000.	201.90
	PATRICKS PRINTING	ENVELOPES 9 X 12	00100050.531000.	290.19
	PATRICKS PRINTING	PUBLIC DEFENDER NOTICES	00100050.531000.	297.22
	PATRICKS PRINTING	LETTERHEAD	00100050.531000.	323.63
	PATRICKS PRINTING	ENVELOPES, NOC, FINDING SENT	00100050.531000.	1,261.40
38762	LAURIE HUGDAHL	COUNCIL MINUTE TAKING SVC 4/09	00101130.541000.	138.00
38763	PETROCARD SYSTEMS INC	FUEL- COMMUNITY DEVELOPMENT	00102020.532000.	565.47
	PETROCARD SYSTEMS INC	FUEL- POLICE	00103222.532000.	4,120.82
38764	PETTY CASH - GOLF	REPLENISH PETTY CASH	42047061.549000.	76.50
	PETTY CASH - GOLF		42047061.549000.	300.00
	PETTY CASH - GOLF	OFFICE SUPPLIES, AQUA GUN	42047267.531000.	9.75
	PETTY CASH - GOLF		42047267.531000.	86.09
38765	PHICORE HEALTH SERVICES, LLC	TRAINING- SAFETY	00100310.531200.	580.00
38766	DENISE FREEMAN	JUMPSUIT- J. JOHNSON	00103222.526000.	371.27

DATE: 4/24/2007
TIME: 10:39:48AM

CITY OF MARYSVILLE
INVOICE LIST
FOR INVOICES FROM 4/24/2007 TO 4/25/2007

CHK #	VENDOR	ITEM DESCRIPTION	ACCOUNT #	ITEM AMOUNT
38767	PNCWA	PNCWA DUES- D. ROODZANT	40142480.549000.	25.00
	PNCWA	PNCWA DUES- FRANK STAIR	40142480.549000.	25.00
	PNCWA	PNCWA DUES- JOHN FILORI	40142480.549000.	25.00
38768	PUBLIC FINANCE INC.	LID ADMINISTRATION	00100011.549000.	106.33
	PUBLIC FINANCE INC.		45000085.549000.	956.99
38769	PUD NO 1 OF SNOHOMISH COUNTY	ACCT. 418-001-612-5	00100010.547000.	2,865.57
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT. 345-002-210-2 AREA LIGHT	00105380.547000.	15.25
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 274-001-574-4	00105380.547000.	130.88
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 501-001-656-5	00105380.547000.	142.01
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 411-002-222-7	00105380.547000.	160.85
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT. 341-007-063-9 DEERING	00105380.547000.	259.77
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT.# 910-002-522-1	00105380.547000.	563.09
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 490-001-155-4	00112572.547000.	3,015.40
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 343-042-303-2	10110463.547000.	697.79
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 527-001-632-1	10110564.531000.	512.02
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 423-001-351-0	10110564.547000.	48.05
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 564-001-175-4	10110564.547000.	99.68
	PUD NO 1 OF SNOHOMISH COUNTY	225 STATE AVE 230-075-562-2	10110564.547000.	112.74
	PUD NO 1 OF SNOHOMISH COUNTY	162-000-094-1 TRAFFIC LIGHT	10110564.547000.	533.59
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 493-001-880-1	40140180.547000.	29.66
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT. 540-011-293-3	40140180.547000.	124.46
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 335-001-900-0	40140180.547000.	574.18
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 401-001-485-2	40140180.547000.	2,240.25
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT # 224-078-532-5	40141580.547000.	1,284.06
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 243-001-286-0	40142280.547000.	532.72
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT # 461-029-794-9	40142480.547000.	6,726.32
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 370-002-191-2	40142480.547000.	7,301.91
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 447-001-040-8	40142480.547000.	13,386.08
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 543-001-067-7	40143410.547000.	27.60
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT # 289-075-529-7	40143780.547000.	1,216.15
38770	PUGET SOUND SECURITY	DUPLICATE KEYS	00103222.531000.	16.00
	PUGET SOUND SECURITY	RIFLE CASE	00103222.531000.	21.69
	PUGET SOUND SECURITY	(2) DUPLICATE KEYS	00105380.531000.	4.23
38771	R&R PRODUCTS INC	BEARING AND SEAL	42047165.548000.	138.45
	R&R PRODUCTS INC	TIRE AND WHEEL ASSEMBLY	42047165.548000.	173.49
38772	RADIOSHACK	PATCH CABLES, 5-PORT SWITCHES	30500030.563000.R9701	160.03
38773	RESPONSE LAW, INC.	REG. FEES- ZARETZKE, L. BUELL	00103528.549100.	185.00
	RESPONSE LAW, INC.		00103528.549100.	185.00
38774	PAUL ROBERTS	TRAVEL-CONFERENCE, MEETINGS	40143410.549000.	142.88
38775	MARIA P P ROOT PH D	FITNESS FOR DUTY EVALUATION	00103010.541000.	1,285.00
38776	SCIENTIFIC SUPPLY & EQUIPMENT INC	MFC BROTH W/O ROSOLIC ACID	40142480.531400.	152.26
38777	SEBCO, INC	REFUND-PAID MITIGATION FEES 2X	30516344.348001.	3,965.00
38778	SHAWN & DENAE BUNNELL	UB 751625051501 7112 55TH PL N	401.122110.	176.23
38779	SHEPARD, KATE	UB 625025000000 5025 104TH PL	401.122110.	70.08
38780	SHEPARD, KATE		401.122110.	130.60
38781	SNOHOMISH COUNTY SHERIFFS OFFICE	ETCHIESON, KELEE JO	001.229050.	550.00
38782	SIX ROBBLEES INC	SNOW TIRE CHAINS	501.141100.	245.76
38783	SNELSON COMPANIES, INC.	PAY ESTIMATE #2	402.223400.	-409.04
	SNELSON COMPANIES, INC.		40230594.563000.S0007	8,876.16
38784	SNO CO PUBLIC WORKS	SOLID WASTE DISPOSAL FEES 3/07	41046060.551000.	102,912.00
38785	SOLID WASTE SYSTEMS INC	CUROTTO CAN TIME DELAY MODULE	50100065.534000.	304.74
	SOLID WASTE SYSTEMS INC	ROCKER SWITCH, JOYSTICK	50100065.534000.	1,198.54

DATE: 4/24/2007
TIME: 10:39:48AM

CITY OF MARYSVILLE
INVOICE LIST
FOR INVOICES FROM 4/24/2007 TO 4/25/2007

CHK #	VENDOR	ITEM DESCRIPTION	ACCOUNT #	ITEM AMOUNT
38786	SOUND SAFETY PRODUCTS CO INC	SAFETY VESTS	501.141100.	74.12
38787	SPECIALTY CIGARS INT'L INC	CIGARS	420.141100.	128.40
38788	SPIKES GOLF SUPPLIES INC	TEES AND PENCILS	420.141100.	251.34
38789	SPRINGBROOK NURSERY	2 YARDS 5/8 GRAVEL	00105380.531000.	35.50
	SPRINGBROOK NURSERY	PEA GRAVEL, 1 YRD	10110361.531000.	20.71
38790	WASHINGTON STATE PATROL	FINGERPRINT BACKGROUND CHECKS	001.237100.	336.00
38791	SUN MOUNTAIN	UMBRELLA HOLDER KIT	420.141100.	16.89
38792	TAB NORTHWEST	LARGE LABEL LETTERS	00100050.531000.	68.54
38793	TERRA RESOURCE GROUP	TEMPS: POTTER, STARCHER	00100050.541000.	408.36
	TERRA RESOURCE GROUP		00100050.541000.	637.44
	TERRA RESOURCE GROUP	TEMP-B. BAGLEY	00105380.511000.	806.40
	TERRA RESOURCE GROUP	TEMPS: POTTER, STARCHER	00143523.541000.	29.88
	TERRA RESOURCE GROUP		00143523.541000.	388.44
	TERRA RESOURCE GROUP		00143523.541000.	629.22
	TERRA RESOURCE GROUP		00143523.541000.	825.20
38794	THOMPSON, JOY D	UB 042420090001 9729 64TH DR N	401.122110.	25.11
38795	TITLEIST	COBRA FP IRONS 4-PW DEMO	42047267.534000.	242.39
38796	TOVAR PROPERTIES	UB 984620000002 4620 71ST DR N	410.122100.	132.03
38797	TRIPLE D WELDING	FLAG POLE REPAIR-JENNINGS PARK	00105380.548000.	269.08
38798	TYLER TECHNOLOGIES, INC.	DIRECT DEPOSIT CHECK STOCK	00101023.531000.	136.30
38799	UNITED PARCEL SERVICE	SHIPPING CHARGES	00103222.542000.	4.84
	UNITED PARCEL SERVICE		00103222.542000.	7.70
	UNITED PARCEL SERVICE		00103222.542000.	9.88
	UNITED PARCEL SERVICE		00103222.542000.	15.18
	UNITED PARCEL SERVICE		00103222.542000.	19.14
38800	UNITED RENTALS	TRIMMER LINE	00105380.531000.	23.86
	UNITED RENTALS	CARPET CLEANER RENTAL 3/19/07	10111230.549000.	51.49
	UNITED RENTALS	DEHUMIDIFIER RENTAL 3/21	10111230.549000.	141.05
38801	VANOPDORP, TERRANCE	UB 470770000000 5318 144TH PL	401.122110.	21.75
38802	DAVID VASCONI	MILEAGE, MEALS- FTO ACADEMY	00104230.543000.	29.00
	DAVID VASCONI		00104230.543000.	39.85
38803	VERIZON NORTHWEST	ACCT#030211106496225401	40140080.541000.	30.20
	VERIZON NORTHWEST	ACCT#030211101696225800	40140380.541000.	30.20
	VERIZON NORTHWEST	ACCT 102778795907	40143410.542000.	60.38
38804	KATIE VOLKERS	REFUND-RENTAL DEPOSIT	001.239100.	58.00
38805	WESSPUR MACHINE SALES & SERVICE	ALTERNATOR-M008	50100065.534000.	488.54
38806	WHATCOM COUNTY AS FINANCE	1ST QTR TRANSPORT PRISONERS	00103960.551000.	5,909.75
38807	WHITING, CHARMAINE	UB 980068000001 5900 64TH ST N	410.122100.	114.94
38808	JEREMY WOOD	MEALS-BASIC DRUG ENF. TRAINING	00103121.543000.	167.17
38809	DONNA WRIGHT	MILEAGE- MEETINGS	00100060.543000.	77.06

WARRANT TOTAL: **344,751.95**

LESS VOIDS

$344,751.95

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Claims	AGENDA SECTION:
PREPARED BY: Sandy Langdon, Finance Director	AGENDA NUMBER:
ATTACHMENTS: Claims Listings	APPROVED BY: MAYOR CAO
BUDGET CODE:	AMOUNT:

Please see attached.

RECOMMENDED ACTION: The Finance and Executive Departments recommend City Council approve the May 2, 2007 Period 5 claims in the amount of $731,826.31 paid by Check No.'s 38810 through 38956 with Check No. 37023 voided.
COUNCIL ACTION:

DATE: 5/1/2007
TIME: 10:45:12AM

CITY OF MARYSVILLE
INVOICE LIST
FOR INVOICES FROM 4/27/2007 TO 5/2/2007

CHK #	VENDOR	ITEM DESCRIPTION	ACCOUNT #	ITEM AMOUNT
38810	DEPARTMENT OF LABOR & INDUSTRIES	L&I 1ST QTR 2007	00100050.524000.	26.50
	DEPARTMENT OF LABOR & INDUSTRIES		00103222.524000.	204.60
	DEPARTMENT OF LABOR & INDUSTRIES		00105120.524000.	77.81
	DEPARTMENT OF LABOR & INDUSTRIES		00105250.524000.	268.15
	DEPARTMENT OF LABOR & INDUSTRIES		00105515.549000.	2.89
	DEPARTMENT OF LABOR & INDUSTRIES		632.231430.	56,426.81
38811	AUTOMATIC FUNDS TRANSFER SERVICES	UB REMITTANCE PROCESSING	00143523.541000.	405.72
38812	ALL BRITE FLOOR MAINTENANCE	STRIP/WAX JENNINGS BARN FLOOR	00105380.548000.	350.00
38813	AOC FINANCIAL SERVICES	DMCMA SPRING CONFERENCE	00100050.543000.	115.00
	AOC FINANCIAL SERVICES	DMCMJA SPRING CONFERENCE	00100050.543000.	115.00
38814	ASCOM HASLER/GE CAP PROG	POSTAGE METER	00100050.531000.	44.27
	ASCOM HASLER/GE CAP PROG		00100110.531000.	44.27
	ASCOM HASLER/GE CAP PROG		00100310.531000.	44.27
	ASCOM HASLER/GE CAP PROG		00101023.531000.	44.27
	ASCOM HASLER/GE CAP PROG		40143410.531000.	44.27
38815	ASSOCIATION OF WASHINGTON CITIES	LAMOUREUX-WRITING GRANTS TRNG	00103010.549100.	85.00
38816	JAMES B BALLEW	REIMBURSE TAXI, FOAM BOARD	00105380.549000.	54.64
38817	BANK OF AMERICA	CONFERENCE REIMBURSEMENT	00102020.543000.	31.20
38818	BAXTER AUTO CENTER	MISC. TOOLS	41046060.535000.	152.64
38819	BICKFORD FORD-MERCURY	FRONT BRAKE ROTORS, PAD SET	501.141100.	274.48
38820	BILLS BLUEPRINT INC	COPYING FILES	00102020.549000.	113.56
	BILLS BLUEPRINT INC		00102020.549000.	123.11
	BILLS BLUEPRINT INC		00102020.549000.	128.38
	BILLS BLUEPRINT INC		00102020.549000.	148.54
	BILLS BLUEPRINT INC		00102020.549000.	197.91
38821	BLUMENTHAL UNIFORMS & EQUIPMENT	MAG POUCH BERETTA-LAMOUREAUX	00103010.526000.	27.69
	BLUMENTHAL UNIFORMS & EQUIPMENT	UNIFORM SHIRTS-RINGEN	00103010.526000.	114.08
	BLUMENTHAL UNIFORMS & EQUIPMENT	BLACK BOOTS- R. SMITH	00103010.526000.	141.43
	BLUMENTHAL UNIFORMS & EQUIPMENT	CLASS A PANTS- R. SMITH	00103010.526000.	196.36
	BLUMENTHAL UNIFORMS & EQUIPMENT	CREDIT: COLLAR BRASS 2 STARS	00103222.526000.	-52.01
	BLUMENTHAL UNIFORMS & EQUIPMENT	HOLSTER TACT	00103222.526000.	292.02
	BLUMENTHAL UNIFORMS & EQUIPMENT	UNIFORM VEST-WENNERSTEN	00103222.526000.	881.82
	BLUMENTHAL UNIFORMS & EQUIPMENT	UNIFORM VEST,TRAUMA PLT-ROBBIN	00103222.526000.	963.42
	BLUMENTHAL UNIFORMS & EQUIPMENT	UNIFORM SHIRTS -DYE	00104190.526000.	34.76
	BLUMENTHAL UNIFORMS & EQUIPMENT	UNIFORM SHIRTS-GLIDDEN	00104190.526000.	130.40
	BLUMENTHAL UNIFORMS & EQUIPMENT	UNIFORM SHIRTS-VANDERSCHEL	00104190.526000.	153.24
	BLUMENTHAL UNIFORMS & EQUIPMENT	UNIFORM SHIRTS-NYMAN	00104190.526000.	195.62
	BLUMENTHAL UNIFORMS & EQUIPMENT	UNIFORM PANTS -NYMAN	00104190.526000.	252.92
38822	BOB BARKER COMPANY	INMATE SANDALS	00103960.531000.	57.25
38823	BRIDGESTONE GOLF	WOMEN'S GOLF GLOVES	42047267.534000.	27.81
38824	BROWER TINTING & GRAPHICS	WINDOW FILM/INSTALL -JAIL	00100025.562000.C0502	244.13
38825	BROWNS PLUMBING & PUMPS INC	REBUILD KIT-JENNINGS RESTROOMS	00105380.531000.	21.69
38826	DOUG BUELL	SCREEN PROJECTOR TRIPOD	00100720.549000.	216.99
38827	LARRY BUELL	MEAL REIMBURSEMENT-TRAINING	00103528.543000.	28.02
38828	GWENDOLYN R CAMPBELL PUBLIC POLICY	COMPENSATION GRIDS	00100110.541000.	1,230.00
38829	NITA CARROLL	REFUND	00110347.376020.	25.00
38830	CARR'S ACE HARDWARE	BRASS FITTINGS	40140180.531000.	47.51
	CARR'S ACE HARDWARE	6' X 8' TARP	40140580.531000.	4.33
	CARR'S ACE HARDWARE	BOLTS,CAP, PLUG, WASHERS	40140980.531000.	24.67
	CARR'S ACE HARDWARE	HAMMER,BUSHING,RIVETS	40140980.531000.	41.61
38831	CASCADE FASTENER INC	NYLON FASTENERS	42047165.548000.	18.23
38832	CASCADE MAILING	UB MAILING	00143523.542000.	252.06

DATE: 5/1/2007
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CITY OF MARYSVILLE
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CHK #	VENDOR	ITEM DESCRIPTION	ACCOUNT #	ITEM AMOUNT
38833	CDW GOVERNMENT INC	SERVER AND NETWORK LICENSES	00100020.531000.	20.94
	CDW GOVERNMENT INC	COURT PRINTER, 3 PW TABLET PCS	00100050.535000.	1,558.15
	CDW GOVERNMENT INC	SERVER AND NETWORK LICENSES	00102020.549000.	20.94
	CDW GOVERNMENT INC		10400022.535000.	20.94
	CDW GOVERNMENT INC		40141280.535000.	20.94
	CDW GOVERNMENT INC	3 PW FIELD TABLET PC CASES	40143410.535000.	160.12
	CDW GOVERNMENT INC	3 PW FIELD TABLET PCS MAINTENC	40143410.535000.	309.24
	CDW GOVERNMENT INC	COURT PRINTER, 3 PW TABLET PCS	40143410.535000.	5,348.35
	CDW GOVERNMENT INC	SERVER AND NETWORK LICENSES	40145040.531000.	20.94
	CDW GOVERNMENT INC	W0101 WADE ROAD FIREWALL	40220594.563000.W0101	349.11
	CDW GOVERNMENT INC	RACK BOLT	50300090.531000.	8.76
	CDW GOVERNMENT INC	BACKUP TAPES	50300090.531000.	94.66
	CDW GOVERNMENT INC	CDS, CABLES, MONITOR	50300090.531000.	212.74
	CDW GOVERNMENT INC	MICE, KEYBOARDS, ADAPTERS	50300090.531000.	401.93
	CDW GOVERNMENT INC	SPAM SPYWARE UPDATE SUBSCRIPT	50300090.531000.	1,309.61
	CDW GOVERNMENT INC	CDS, CABLES, MONITOR	50300090.535000.	253.35
	CDW GOVERNMENT INC	SERVER AND NETWORK LICENSES	50300090.535000.	530.20
	CDW GOVERNMENT INC	REPLACEMENT PRINTER- JAIL	50300090.535000.	682.47
	CDW GOVERNMENT INC	EXCHANGE BACKUP SOFTWARE	50300090.549000.	504.54
38834	CENTEX HOMES	UB 038501000000 8501 79TH AVE	401.122110.	99.90
38835	CNR, INC	PHONE FOR COURTS	00100050.535000.	270.32
	CNR, INC	SERVER UPGRADE CHARGE	50300090.541000.	218.00
	CNR, INC	MAINTENANCE CONTRACT APRIL 07	50300090.541000.	416.38
	CNR, INC	ONSITE MAINTENANCE CHARGE	50300090.541000.	817.50
38836	COMCAST	MONTHLY BROADBAND CHARGE	50300090.531000.	169.95
38837	CONTRACT SOLUTIONS GROUP	CONSTUCT. WORKSHOP-GRUENHAGE	40145040.549000.	189.00
38838	WA DEPT OF CORRECTIONS	CREDIT FOR MUSTARD PACKETS	00103960.531250.	-14.00
	WA DEPT OF CORRECTIONS	INMATE MEALS	00103960.531250.	1,241.80
	WA DEPT OF CORRECTIONS		00103960.531250.	1,373.30
38839	WASHINGTON STATE CRIMINAL JUSTICE	FTO ACADEMY-HENNINGER/VASCONI	00103222.549100.	60.00
	WASHINGTON STATE CRIMINAL JUSTICE		00104230.549100.	60.00
38840	CUTTING EDGE TRAINING	GUNDERSON,LEE-PURSUIT TRAINING	00103222.549100.	129.00
	CUTTING EDGE TRAINING		00103222.549100.	129.00
38841	DAILY JOURNAL OF COMMERCE	BID NOTICE-TRAILER MOUNTED	50100048.564000.	206.50
38842	DAVIS DOOR	REPAIR KEY PAD SALLY PORT-PSB	00100010.548000.	600.55
38843	DELL MARKETING LP	PHOTO EVIDENCE PC	10400022.535000.	1,436.84
	DELL MARKETING LP	F.W. SCADA WORKSTATION UPGRADE	40142480.531000.	1,818.78
	DELL MARKETING LP	SURFACE WATER ENG. WORKSTATION	40145040.531000.	1,818.78
	DELL MARKETING LP	BACKUP TAPES	50300090.531000.	423.38
	DELL MARKETING LP	REPLACEMENT LAPTOP CASE	50300090.535000.	52.07
38844	ARLINE DEPALMA	INSTRUCT DRIFTWOOD SCULPTURE	00105250.541020.	176.80
38845	JAMES DESHERLIA	REFUND- CAMPS	00110347.376010.	280.00
38846	DICKS TOWING INC	EVIDENCE IMPOUND	00103222.541000.	43.44
	DICKS TOWING INC		00103222.541000.	43.44
	DICKS TOWING INC		00103222.541000.	43.44
	DICKS TOWING INC		00103222.541000.	43.44
38847	DMJM HARRIS	PAY ESTIMATE #24	40220594.563000.W0003	26,209.72
38848	DWYER INSTRUMENTS, INC.	SALES TAX NOT ON INV. 02482161	40142480.548000.	51.42
	DWYER INSTRUMENTS, INC.	ROTOMETERS	40142480.548000.	614.19
38849	E&E LUMBER INC	FASTENERS- CITY HALL	00103530.531000.	4.12
	E&E LUMBER INC	FASTENERS, COUPLINGS, ELBOWS	00103530.531000.	14.03
	E&E LUMBER INC	COUPLINGS, FILLER-CITY HALL	00103530.531000.	15.17

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38849	E&E LUMBER INC	PLUMBING PARTS-PETTING ZOO	00105380.531000.	9.46
	E&E LUMBER INC	TROWEL	00105380.531000.	13.55
	E&E LUMBER INC	HARDWARE-FLAG POLE REPAIR	00105380.531000.	30.49
	E&E LUMBER INC	PAINT, CAUTION TAPE	00105380.531000.	33.81
	E&E LUMBER INC	CLAMPS- COMEFORD FLAGPOLE	00105380.531000.	37.98
	E&E LUMBER INC	LUMBER, PAINT-COMEFORD SIGN	00105380.531000.	123.11
	E&E LUMBER INC	PLUMBING PARTS-PETTING ZOO	00105380.531000.	148.19
	E&E LUMBER INC	WALL PLATES - PW SHOP	40143780.531000.	5.82
	E&E LUMBER INC	FOOT BRIDGE BUILDING MATERIALS	42047165.531950.	484.93
38850	ELSTER AMCO WATER , INC	3" COMPOUND METER	40140980.531000.	2,382.01
38851	EMERALD RECYCLING	CREDIT MEMO:USED OIL PURCHASE	50100065.531000.	-32.50
	EMERALD RECYCLING	PARTS WASHER SVC, DISPOSAL FEE	50100065.531000.	185.21
38852	ENGINEERED CONTROL CONTROL SYSTEMS	CCTV CAMERAS- PSB	00100025.562000.C0502	526.60
38853	ESCHELON TELECOM INC.	PUBLIC WORKS ACCT 010496697	00100020.542000.	41.34
	ESCHELON TELECOM INC.	ACCT 010495318- CITY HALL	00100050.542000.	13.81
	ESCHELON TELECOM INC.	CITYHALL 010495321	00100050.542000.	91.20
	ESCHELON TELECOM INC.	ACCT 010495318- CITY HALL	00100110.542000.	21.51
	ESCHELON TELECOM INC.	CITYHALL 010495321	00100110.542000.	73.05
	ESCHELON TELECOM INC.	ACCT 010495318- CITY HALL	00100310.542000.	7.45
	ESCHELON TELECOM INC.	CITYHALL 010495321	00100310.542000.	36.75
	ESCHELON TELECOM INC.	ACCT 010495318- CITY HALL	00100720.542000.	2.91
	ESCHELON TELECOM INC.	CITYHALL 010495321	00100720.542000.	17.80
	ESCHELON TELECOM INC.	ACCT 010495318- CITY HALL	00101023.542000.	11.68
	ESCHELON TELECOM INC.	CITYHALL 010495321	00101023.542000.	56.14
	ESCHELON TELECOM INC.	ACCT 010495318- CITY HALL	00101130.542000.	1.21
	ESCHELON TELECOM INC.	CITYHALL 010495321	00101130.542000.	9.20
	ESCHELON TELECOM INC.	PUBLIC WORKS ACCT 010496697	00102020.542000.	81.76
	ESCHELON TELECOM INC.	ACCT 010495318- CITY HALL	00103530.542000.	4.74
	ESCHELON TELECOM INC.	CITYHALL 010495321	00103530.542000.	538.05
	ESCHELON TELECOM INC.	ACCT 010495318- CITY HALL	00143523.542000.	12.35
	ESCHELON TELECOM INC.	CITYHALL 010495321	00143523.542000.	62.82
	ESCHELON TELECOM INC.	PUBLIC WORKS ACCT 010496697	10111230.542000.	2.24
	ESCHELON TELECOM INC.		40142480.542000.	3.59
	ESCHELON TELECOM INC.		40143410.542000.	62.92
	ESCHELON TELECOM INC.		41046170.542000.	0.14
	ESCHELON TELECOM INC.		50100065.542000.	8.60
	ESCHELON TELECOM INC.		50200050.542000.	0.42
	ESCHELON TELECOM INC.	ACCT 010495318- CITY HALL	50300090.542000.	7.15
	ESCHELON TELECOM INC.	CITYHALL 010495321	50300090.542000.	27.43
38854	ESRI	ARCVIEW MAINTENANCE	00102020.549000.	3,287.74
	ESRI		40143410.534000.	3,287.73
	ESRI		40145040.549000.	3,287.73
38855	CITY OF EVERETT ,	ANIMALS TO SHELTER JAN-MAR 07	00104230.551000.	7,857.00
38856	FEDEX	MAILED 2 BOXES, IMCO BOOK	40220594.563000.W0003	44.40
38857	FLINT TRADING INC	PREMARK SIGNS	10110564.531000.	1,024.08
38858	FRAHM, FREDERICK & JULIE	UB 822300000001 5707 PARKSIDE	401.122110.	71.12
38859	JEFF FRANZEN	QUALIFICATION/TRAINING TARGETS	00103740.531000.	342.76
38860	KEASHIA GARNER	REFUND-SCHEDULE CONFLICT	00110347.376004.	41.00
38861	GOLDMAN, JEFF & JACKIE	UB 830918420000 7115 70TH AVE	401.122110.	37.20
38862	GRANDVIEW INC	REFUND BUILDING PERMIT FEES	00107322.321000.	2,022.55
	GRANDVIEW INC		00107322.321000.	2,067.35
38863	GREG RAIRDON'S DODGE CHRYSLER JEEP	REPLACED TRANSFER CASE #966	50100065.548000.	1,462.92

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38864	KRISTIE GUY	TRAVEL-AWC EMP HEALTH ACADEMY	00100310.543000.	307.58
38865	H & L SPORTING GOODS	3 DOZEN SOFTBALLS	001.231700.	-9.31
	H & L SPORTING GOODS		00105120.531010.	118.81
38866	HACH COMPANY	SWIFTEST FREE DISPENSER	40140780.531000.	251.38
38867	GORDON HALLGREN	TAI CHI CHUAN	00105120.541020.	257.89
38868	HALSTROM & ASSOCIATES, INC.	4/07 LOBBYIST RETAINER FEE	40143410.541000.	2,080.00
38869	HASLER, INC	POSTAGE METER LEASE 5/17-6/16	00103010.545000.	219.60
38870	HD FOWLER COMPANY	ELBOW BARB FOR FUNNY PIPE	00105380.531000.	1.24
	HD FOWLER COMPANY	HANDPUMP/ELBOW BARBS	00105380.535000.	59.91
	HD FOWLER COMPANY	MISC. BRASS PLUMBING PARTS	401.141400.	1,605.43
	HD FOWLER COMPANY	METER BOX BASES/LIDS	40140580.531000.	334.48
	HD FOWLER COMPANY	2" GLOBE VALVE FOR GOLF PUMP	42047165.531920.	143.26
38871	HEALTHFORCE OCCMED BILLING DEPT	OFFICER EXAM - WALLACE	00103010.541000.	472.00
	HEALTHFORCE OCCMED BILLING DEPT	RECERT EXAM HACKFORD,LAMBERT	40143410.541000.	108.00
38872	HOME DEPOT CREDIT SVCS	PLANTING MATERIALS-COMEFORD PK	00105380.531000.	43.91
38873	FRANCES HOWLAND	REFUND	00110347.376020.	11.00
	FRANCES HOWLAND		00110347.376020.	14.00
38874	IDEARC MEDIA CORP.	YELLOW PAGE AD	42047267.544000.	178.45
38875	IOS CAPITAL	COPIER RENTAL - PW	00100020.545000.	524.51
	IOS CAPITAL		00102020.545000.	174.84
	IOS CAPITAL	COPY MACHINE LEASE 4/12-5/11/0	00103121.545000.	694.49
	IOS CAPITAL	COPIER RENTAL - PW	40143410.545000.	174.84
	IOS CAPITAL	COPIER LEASE	42047165.545000.	85.34
38876	INNOVATION FIRST, INC.	REPLACEMENT SERVER RACK	50300090.535000.	797.81
38877	IRON MOUNTAIN QUARRY LLC	3/4" CRUSHED ROCK- 98.17 TONS	10110130.531000.	798.86
38878	JDS INC	2 ANEMOSTAT AFDL LOUVERS	00100025.562000.C0502	104.91
38879	DENNIS KENDALL	MILEAGE TO MEETINGS	00100110.549000.	107.96
38880	RALPH KRUSEY	REIMBURSE PRIORITY MAIL POSTAG	00103010.542000.	8.85
	RALPH KRUSEY	FUEL-INSPECT JAIL FACILITIES	00103010.543000.	32.50
38881	LAW ENFORCEMENT EQUIPMENT DISTRIBU	STREAMLIGHT REPLACE. BULB M3/6	00103222.531000.	111.74
38882	LAWN EQUIPMENT SUPPLY	PRIMING ASSY,AIR FILTER-TANAKA	00105380.598000.	61.35
38883	DOUG LEE	MEALS-BACKGRND CHK APPLICANT	00103010.543000.	88.00
38884	DEPT OF LICENSING	CHRISTIANSEN,DEAN-CPL RENEWAL	001.237020.	18.00
	DEPT OF LICENSING	DUFFY,BRITTNEY-CPL RENEWAL	001.237020.	18.00
	DEPT OF LICENSING	PARRISH, GREGORY-CPL RENEWAL;	001.237020.	18.00
	DEPT OF LICENSING	REED,GUY-CPL RENEWAL	001.237020.	18.00
	DEPT OF LICENSING	ROBLES,JUAN-CPL ORIGINAL	001.237020.	18.00
	DEPT OF LICENSING	STEWART,STEPHEN-CPL RENEWAL	001.237020.	18.00
	DEPT OF LICENSING	WILLIAMS,MITCHELL-CPL ORIGINAL	001.237020.	18.00
38885	DEPT OF LICENSING	CHARLES GRAVES-DEALER LICENSE	001.237080.	125.00
38886	LINKS TURF SUPPLY INC	REPLACEMENT BRUSH	42047165.531910.	31.92
38887	HAZEL LOREEN	REFUND	00110347.376020.	25.00
38888	LOWES HIW INC	PVC FITTINGS	40141580.531000.	45.28
	LOWES HIW INC	JOB BOX	40143410.535000.	301.91
38889	SUSANA MACIAS	REFUND DEPOSIT-JENNINGS BARN	001.239100.	58.00
38890	RENITA MACIVER	INSTRUCTOR-SWEDISH LEVEL 3	00105120.541020.	176.00
38891	MARYSVILLE FIRE DIST #12	FIRE CONTROL/EMERGENCY SERVICE	00109522.551000.	311,803.09
	MARYSVILLE FIRE DIST #12		00109526.551000.	111,733.96
38892	MARYSVILLE GLOBE	ORDINANCES/NOTICES	00102020.544000.	39.06
	MARYSVILLE GLOBE		00102020.544000.	47.74
	MARYSVILLE GLOBE		00102020.544000.	60.76
	MARYSVILLE GLOBE	AD FOR GIS TECHNICIAN	00102020.544000.	72.95

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38892	MARYSVILLE GLOBE	LEGAL ADS	00102020.544000.	169.26
	MARYSVILLE GLOBE	ORDINANCES/NOTICES	00102020.544000.	182.28
	MARYSVILLE GLOBE		50100048.564000.	91.14
38893	MARYSVILLE SIGN, INC	LAND USE SIGNS	00102020.531000.	574.51
38894	MARYSVILLE SKATE INN	SKATE PARTY FOR ASAP	00105120.531070.	38.00
38895	MARYSVILLE VAC & SEW	VACUUM AND BAGS- LIBRARY	00112572.531000.	200.62
38896	CITY OF MARYSVILLE	7115 GROVE ST	42047165.547000.	190.80
	CITY OF MARYSVILLE	7007 GROVE ST- WTR, GBG, SEWER	42047165.547000.	773.60
38897	MCGREGOR HARDWARE DISTRIBUTION	DEADLATCH LOCK- CITY HALL	00103530.531000.	37.30
38898	METROCALL INC	PAGER SERVICE	00103121.542000.	7.24
	METROCALL INC		00103121.542000.	7.24
	METROCALL INC		00103960.542000.	7.24
38899	MOOMEY, CAROL P	UB 761302581701 8126 80TH DR N	401.122110.	33.47
38900	MUMAW, LARRY	UB 750779000000 4828 73RD DR N	401.122110.	166.55
38901	STACY NISSEN	REFUND DEPOSIT JENNINGS BARN	001.239100.	58.00
38902	NORTH SOUND HOSE & FITTINGS	EXHAUST HOSE, COUPLERS	40142080.531000.	335.32
38903	NORTHWEST CASCADE INC	HONEYBUCKET RENTAL-SOFTBALL	00105120.531010.	256.65
38904	OFFICE DEPOT	INK, PAPER, TAPE, DRY ERASERS	00100020.531000.	12.07
	OFFICE DEPOT	OFFICE SUPPLIES	00100110.531000.	60.08
	OFFICE DEPOT		00100310.531000.	60.08
	OFFICE DEPOT		00100310.531000.	60.35
	OFFICE DEPOT	FILE FOLDERS	00102020.531000.	60.42
	OFFICE DEPOT	TAPE,PHONE STAND,FILE CARDS	00102020.531000.	60.53
	OFFICE DEPOT	FASTENERS, PAPER, SCALE	00102020.531000.	187.62
	OFFICE DEPOT	INK, PAPER, TAPE, DRY ERASERS	40143410.531000.	12.07
	OFFICE DEPOT		40143410.531000.	181.36
	OFFICE DEPOT	BINDERS- ENGINEERING	40220594.563000.W0003	63.39
	OFFICE DEPOT	INK, PAPER, TAPE, DRY ERASERS	50100065.531000.	3.02
	OFFICE DEPOT		50200050.531000.	3.02
38905	LEONARD OLIVE	REFUND	00110347.376008.	85.00
38906	OVERALL LAUNDRY SERVICES INC	MECHANIC'S UNIFORM	42047165.526000.	21.50
	OVERALL LAUNDRY SERVICES INC	MECHANICS UNIFORM	42047165.526000.	21.50
	OVERALL LAUNDRY SERVICES INC	MECHANIC'S UNIFORM	42047165.526000.	28.52
38907	PACIFIC POWER PRODUCTS	BLADES	00105380.598000.	266.78
	PACIFIC POWER PRODUCTS	SPINDLE	00105380.598000.	314.65
	PACIFIC POWER PRODUCTS	TIRE & RIMS	00105380.598000.	382.20
38908	PACIFIC TOPSOILS INC	DUMP CONCRETE QTY 5	10110361.531000.	28.29
	PACIFIC TOPSOILS INC	DUMP CONCRETE QTY 9	10110361.531000.	50.95
	PACIFIC TOPSOILS INC	DUMP CONCRETE QTY 10	10111561.548000.	56.19
	PACIFIC TOPSOILS INC		10111561.548000.	56.19
38909	THE PARTS STORE	CREDIT MEMO: MISBILLED	501.141100.	-2.93
	THE PARTS STORE	FUSES	501.141100.	2.93
	THE PARTS STORE	AIR FILTERS	501.141100.	45.57
	THE PARTS STORE	WORK LIGHT ASSY,MIRROR,FILTERS	501.141100.	54.90
	THE PARTS STORE	OIL FILTERS, CABLE TIES	501.141100.	181.42
	THE PARTS STORE	CREDIT MEMO: RETURN CORE DEP.	50100065.534000.	-143.22
	THE PARTS STORE	SLOW MOVING VEHICLE TRIANGLE	50100065.534000.	14.29
	THE PARTS STORE	WIPER BLADES	50100065.534000.	26.39
	THE PARTS STORE	BELT - #299	50100065.534000.	36.02
	THE PARTS STORE	FRONT BRAKE PAD SET	50100065.534000.	82.47
	THE PARTS STORE	TAIL LIGHT, STROBE LIGHT	50100065.534000.	104.83
	THE PARTS STORE	CALIPERS, BRAKE HOSES/PAD SET	50100065.534000.	368.54

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38910	LAURIE HUGDAHL	COUNCIL MINUTE TAKING SVC 4/23	00101130.541000.	222.00
38911	PENSKE TRUCK LEASING CO., L.P.	RENTAL OF 24FT MEDIUM VAN	00105380.531000.	24.63
	PENSKE TRUCK LEASING CO., L.P.		00105380.531000.	218.04
38912	PERTEET ENGINEERING INC	PAY ESTIMATE #17	30500030.563000.R0501	3,784.30
	PERTEET ENGINEERING INC		30500030.563000.T0102	4,789.84
38913	PETROCARD SYSTEMS INC	FUEL - POLICE	00103222.532000.	4,970.27
38914	PETTY CASH- PW	VEH REGS, PARKING FEE, BRUSH	40141580.535000.	3.57
	PETTY CASH- PW		50100048.564000.	2.50
	PETTY CASH- PW		50100048.564000.	22.75
	PETTY CASH- PW		50100065.548000.	2.00
38915	PHAROS CORPORATION	PAY ESTIMATE #4	30500030.563000.R0301	6,167.05
38916	PING	GOLF CAPS	42047267.534000.	242.37
38917	PLATT- EVERETT	PHOTO CELL LIGHT SWITCHES -PW	40143780.531000.	133.12
38918	POST ACADEMY- IDAHO	SGT RASMUSSEN- COMMAND COLLEC	00103121.549100.	4,000.00
38919	POWERSCREEN OF WASHINGTON	ALTERNATOR BELT #570	50100065.534000.	68.30
38920	PROFORCE MARKETING, INC	XDPM MODEL 26701	001.231700.	-6.79
	PROFORCE MARKETING, INC		00103222.535000.	86.64
38921	PUD NO 1 OF SNOHOMISH COUNTY	UTILITY CHARGE-1635 GROVE ST	00100010.547000.	248.24
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 572-001-307-6	00105090.547000.	28.01
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 277-001-755-0	00105250.547000.	652.00
	PUD NO 1 OF SNOHOMISH COUNTY	AREA LIGHT 1326 -1ST STREET	00105380.547000.	16.01
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 412-001-373-7	10110564.547000.	64.61
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 519-001-313-5	10110564.547000.	78.78
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT# 391-045-118-0	10110564.547000.	88.24
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 557-001-737-5	10110564.547000.	92.47
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 441-001-033-6	10110564.547000.	107.91
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 328-001-837-9	10110564.547000.	108.72
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT #123-000-023-2	10110564.547000.	129.21
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 841-000-252-4	10110564.547000.	471.27
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 123-000-075-2	10110564.547000.	520.32
	PUD NO 1 OF SNOHOMISH COUNTY	ACCT 571-001-001-7	40142480.547000.	587.82
38922	PUGET SOUND BUILDING INSPECTIONS	GENERAL INSPECTION-1930 4TH ST	30500030.563000.T0102	390.00
38923	PVP COMMUNICATIONS INC	INTERFACE KIT W/ SPECTRA RADIO	001.231700.	-37.49
	PVP COMMUNICATIONS INC		00103222.548000.	478.54
38924	CARMEN RASMUSSEN	MILEAGE- WRPA CONFERENCE	00100060.543000.	79.04
38925	LISA RECTOR-BOLES	REFUND - MEDICAL	00110347.376004.	41.00
38926	RH2 ENGINEERING INC	PAY ESTIMATE #4	40220594.563000.W0505	2,980.90
	RH2 ENGINEERING INC	PAY ESTIMATE #6	40220594.563000.W0505	3,012.65
	RH2 ENGINEERING INC	PAY ESTIMATE #5	40220594.563000.W0505	4,112.74
	RH2 ENGINEERING INC	PAY ESTIMATE #7	40220594.563000.W0505	6,993.75
	RH2 ENGINEERING INC	PAY ESTIMATE #34	40220594.563000.W0101	12,594.39
38927	ROACH, PATRICK	UB 521150000001 3922 175TH PL	401.122110.	31.51
38928	ROACH, PATRICK		401.122110.	64.60
38929	ROTH HILL ENGINEERING PARTNERS,LLC	PAY ESTIMATE #11	40230594.563000.S0602	552.11
38930	ROY ROBINSON CHEVROLET	TURN SIGNAL LENS- #914	50100065.534000.	79.31
38931	SECURITY SERVICES	ARMORED TRUCK SERVICE 4/2007	00100050.541000.	368.50
	SECURITY SERVICES		00102020.541000.	184.25
	SECURITY SERVICES		00103010.541000.	184.25
	SECURITY SERVICES		00143523.541000.	184.25
	SECURITY SERVICES		40143410.541000.	184.25
	SECURITY SERVICES		42047061.541000.	172.35
38932	STEVEN SIDES	WATER/SEWER REBATE	40143410.549070.	50.00

DATE: 5/1/2007
TIME: 10:45:12AM

CITY OF MARYSVILLE
INVOICE LIST
FOR INVOICES FROM 4/27/2007 TO 5/2/2007

CHK #	VENDOR	ITEM DESCRIPTION	ACCOUNT #	ITEM AMOUNT
38933	DEBBIE SODL	REFUND CLASS FEE	00110347.376009.	110.00
38934	SOROPTIMIST INTERNATIONAL	REFUND DEPOSIT JENNINGS BARN	001.239100.	58.00
38935	SPRINGBROOK NURSERY	BEAUTY PARK -COMEFORD PARK	00105380.531000.	-1.26
	SPRINGBROOK NURSERY		00105380.531000.	16.01
	SPRINGBROOK NURSERY	TRUK RENTAL 4/30-4/07/07	10110130.531000.	1,121.25
38936	WASHINGTON STATE PATROL	CLARK HATCH-FINGERPRNT ID-TAXI	00101130.549000.	30.00
38937	STICKNEY, RICHARD	UB 731260000002 2023 70TH PL N	401.122110.	144.28
38938	SUBURBAN PROPANE	TANK RENTAL	42047165.532000.	1.08
	SUBURBAN PROPANE	PROPANE	42047165.532000.	175.16
38939	T BAILEY, INC.	PAY ESTIMATE #9	40220594.563000.W0101	43,404.56
38940	BRENDA TAYLOR	REFUND	00110347.376020.	75.00
38941	TERRA RESOURCE GROUP	TEMP SERVICE-C. CLOUTIER	00102020.549000.	68.84
	TERRA RESOURCE GROUP	CONTRACT LABOR HOURS-BAGLEY	00105380.511000.	806.40
38942	TULALIP TRIBE COURT	JONES, DOROTHY R.	001.229050.	1,500.00
38943	UAP DISTRIBUTION,INC	FUNGICIDE, FERTILIZER	42047165.531900.	1,837.69
	UAP DISTRIBUTION,INC		42047165.531930.	465.22
38944	UNITED PARCEL SERVICE	SHIPPING CHARGES-WSP LAB	00103121.542000.	32.23
	UNITED PARCEL SERVICE		00103222.542000.	5.50
	UNITED PARCEL SERVICE		00103222.542000.	7.37
	UNITED PARCEL SERVICE		00103222.542000.	20.46
	UNITED PARCEL SERVICE		00103222.542000.	22.88
	UNITED PARCEL SERVICE		00103222.542000.	22.88
38945	UNITED RENTALS	10 SAFETY GLASSES	00105380.531000.	19.43
38946	US BANK NATIONAL ASSOCIATION	T BAILEY-ACCT 1-535-9513-5366	40220594.563000.W0101	2,115.23
38947	VERIZON NORTHWEST	ACCT 105170208907	00103121.542000.	35.00
	VERIZON NORTHWEST	ACCT# 107579926005	40143410.542000.	111.08
	VERIZON NORTHWEST	ACCT 101066397601	40143780.542000.	60.38
38948	VERIZON NORTHWEST	CELL PHONE- DJ	00102020.542000.	15.18
	VERIZON NORTHWEST	CELL PHONE-RH	00102020.542000.	15.18
	VERIZON NORTHWEST	CELL PHONE-TL	00102020.542000.	15.18
38949	VICKIE MYRICK	UB 249941000001 10304 56TH DR	401.122110.	177.60
38950	VINYL SIGNS & BANNERS	STICKERS FOR STREET SIGNS	10110564.531000.	323.95
38951	WESTERN EQUIPMENT DISTRIBUTORS	BEARINGS	42047165.548000.	156.97
38952	WESTERN SYSTEMS & FABRICATION	36/64/96 GALLON STAMPED TOTERS	41046060.531000.	22,802.74
38953	WA WILDLIFE & RECREATION COALITION	MEMBERSHIP DUES 2007-J. BALLEW	00105380.549000.	250.00
38954	LOUIS N WILSON	CDL ENDORSEMENT FEE	40143410.549030.	55.00
38955	ZEE MEDICAL SERVICE	REPLACE 1ST AID KIT SUPPLIES	00105380.531000.	12.11
38956	ZUMAR INDUSTRIES	CREDIT MEMO: WRONG SHIPMENT	10110564.531000.	-8,745.89
	ZUMAR INDUSTRIES	SIGN SHOP SUPPLIES	10110564.531000.	8,745.89
	ZUMAR INDUSTRIES		10110564.531000.	8,745.89

WARRANT TOTAL: **732,003.11**

LESS VOIDS CK 37023 (176.80)

$731,826.31

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 7, 2007

AGENDA ITEM: Payroll	AGENDA SECTION:
PREPARED BY: Sandy Langdon, Finance Director	AGENDA NUMBER:
ATTACHMENTS: Blanket Certification	APPROVED BY: MAYOR CAO
BUDGET CODE:	AMOUNT:

Please see attached.

RECOMMENDED ACTION: The Finance and Executive Departments recommend City Council approve the April 20, 2007 payroll in the amount $610,397.61 Check No.'s 17745 through 17803.
COUNCIL ACTION:

BLANKET CERTIFICATION
PAYROLL
FOR PERIOD-4

I, THE UNDERSIGNED, DO HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT THE MATERIALS HAVE BEEN FURNISHED, THE SERVICES RENDERED OR THE LABOR PERFORMED AS DESCRIBED HEREIN AND THAT THE **PAYROLL** IN THE AMOUNT OF **$610,397.61** PAID BY **CHECK NO.'S 17745 THROUGH 17803** ARE JUST, DUE AND UNPAID OBLIGATIONS AGAINST THE CITY OF MARYSVILLE, AND THAT I AM AUTHORIZED TO AUTHENTICATE AND CERTIFY TO SAID CLAIMS.

AUDITING OFFICER — DATE 4/19/07

MAYOR — DATE 5/1/07

WE, THE UNDERSIGNED COUNCILMEMBERS OF MARYSVILLE, WASHINGTON DO HEREBY APPROVE FOR PAYMENT THE ABOVE-MENTIONED **PAYROLL** ON THIS **20TH DAY OF APRIL 2007.**

COUNCILMEMBER — COUNCILMEMBER

COUNCILMEMBER — COUNCILMEMBER

COUNCILMEMBER — COUNCILMEMBER

COUNCILMEMBER — COUNCILMEMBER

CITY OF MARYSVILLE-
EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: PA 0011055 Waldow Heights – Final Plat	AGENDA SECTION:
PREPARED BY: Cheryl Dungan, Senior Planner	AGENDA NUMBER:
ATTACHMENTS: 1. Ordinance 2518 2. Hearing Examiner Decision dated 03/31/04 3. Site Plan 4. Vicinity Map 5. Legal Description 6. Final plat checklist	APPROVED BY: MAYOR: DZK CAO: MS
BUDGET CODE:	AMOUNT:

On May 10th, 2004, the City Council approved Ordinance No. 2518 approving the preliminary plat of Bucher Highlands PRD (aka Waldo Heights PRD) and rezone from R-4.5 to PRD 4.5 creating 13 lots on approximately 4.47 acres. The applicant has met all conditions of final plat approval.

The project is generally located west of 75th Ave NE and south of 52nd St NE, being a portion of the SW ¼ of Section 35, Township 30N, Range 5E, WM.

RECOMMENDED ACTION: Planning Staff recommends Council authorize the Mayor to sign the Final Plat Mylar for Waldow Heights PRD.
COUNCIL ACTION:

cc: Com Dev
Code Pub
MRSC

CITY OF MARYSVILLE

Orig: File

Marysville, Washington

ORDINANCE NO. 2518

AN ORDINANCE OF THE CITY OF MARYSVILLE AFFIRMING THE DECISION OF THE HEARING EXAMINER AND REZONING PROPERTIES OWNED BY JOHN and ANNE BUCHER AMENDING THE OFFICIAL ZONING MAP OF THE CITY

WHEREAS, John and Anne Bucher own one parcel that is approximately 4.47 acres in size located south of 52nd St NE, west of 75th Ave NE, and east of 73rd Dr NE in the City of Marysville, said property being legally described in EXHIBIT A attached hereto; and

WHEREAS, John and Anne Bucher applied to the City of Marysville for a preliminary plat, preliminary site plan approval, and rezone from R-4.5 to PRD 4.5 under File No. PA 0011055; and

WHEREAS, the City Hearing Examiner held a public hearing on said preliminary plat, preliminary site plan approval, residential density incentives, and rezone on March 25, 2004 and adopted Findings of Fact, Conclusions and a Recommendation approving the preliminary plat, preliminary site plan, and rezone of John and Anne Bucher subject to 10 conditions; and

WHEREAS, the Marysville City Council held a public meeting on said preliminary plat, preliminary site plan, and rezone on May 10, 2004 and concurred with the Findings of Fact, Conclusions and Recommendation of the Hearing Examiner, NOW, THEREFORE,

THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. The Findings of Fact, Conclusions and Recommendation of the Hearing Examiner with respect to the above referenced preliminary plat, preliminary site plan approval, and rezone are hereby approved, and the above described property is hereby rezoned from R-4.5 to PRD 4..5

Section 2. The zoning classification for the above-described property shall be perpetually conditioned upon strict compliance with each of the conditions set forth in the Recommendation of the Hearing Examiner. Violation of any of the conditions of said decision may result in reversion of the property to the previous zoning classification and/or may result in enforcement action being brought by the City.

Section 3. The official Zoning Map of the City of Marysville is hereby amended to reflect the reclassification of the above-described property.

Section 4. This decision shall be final and conclusive with the right of appeal by any

aggrieved party to the Superior Court of Snohomish County by filing a Land Use Petition pursuant to the Land Use Petition Act within twenty-one (21) days after passage of this ordinance.

PASSED by the City Council and APPROVED by the Mayor this 10th day of May, 2004.

CITY OF MARYSVILLE

By Dennis L Kendall
DENNIS KENDALL, Mayor

ATTEST:

By Gerry Becker
GERRY BECKER, City Clerk

Approved as to form:

By Grant K. Weed
GRANT K. WEED, City Attorney

Date of Publication: 5/12/04

Effective Date (5 days after publication): 5/17/04

LEGAL DESCRIPTION:

THE SOUTH HALF OF THE EAST HALF OF THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 35, TOWNSHIP 30 NORTH, RANGE 5 EAST, W.M., AS RECORDED IN VOLUME 234 OF DEEDS ON PAGE 144, LESS THE EAST 30' FOR COUNTY ROAD UNDER AUDITOR'S FILE NUMBER 924820, RECORDS OF SNOHOMISH COUNTY, WASHINGTON.

SITUATE IN THE CITY OF MARYSVILLE, COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

CITY OF MARYSVILLE
Hearing Examiner
Findings, Conclusions and Recommendation

APPLICANT: John & Ann Bucher

CASE NO.: PA 0011055

LOCATION: South of 52nd St. NE, west of 75th Ave. NE, and east of 73rd Dr. NE

APPLICATION: 13-lot preliminary site plan, preliminary plat approval, rezone to PRD 4.5

SUMMARY OF RECOMMENDATION:

Planning Staff Recommendation: Approve with conditions

Hearing Examiner Decision: Approve with conditions

PUBLIC HEARING:

After reviewing the official file, which included the Planning Staff's Advisory Report, and after visiting the site, the Hearing Examiner conducted a public hearing on the application. The hearing on the Bucher application was opened at 7:09 p.m., March 25, 2004, in the Council Chambers, Marysville, Washington, and closed at 7:16 p.m. Participants at the public hearing are listed in the minutes of the hearing. A verbatim recording of the hearing and more complete minutes are available in the Planning Department. A list of exhibits offered and entered at the hearing and a list of parties of record are attached to this report.

HEARING COMMENTS:

As noted in the minutes of the hearing, comments were offered by:

From the City:
Cheryl Dungan, Senior Planner

From the Applicant:
Bill Porter, Agent for the Applicant

From the Community:
No one from the general public attended the public hearing.

WRITTEN COMMENTS:

Written comments were submitted by Brad Johnson and Suzanne Smith (See Exhibits 14 & 52).

INTRODUCTION:

The applicant is requesting approval of a rezone from R-4.5 to PRD 4.5, preliminary site plan and preliminary plat approval for the single-family residential development of Bucher Highlands. Approval of the rezone, preliminary site plan, preliminary plat would create 13 single-family lots on approximately 4.47 acres.

According to the preliminary drainage report, storm water will be collected and conveyed to an on-site detention facility prior to release to the downstream system.
The SEPA checklist indicates that approximately 1,500-2,000 cubic yards of cut/fill will be required to construct the project as proposed.

FINDINGS CONCLUSIONS AND DECISION:

Having considered the entire record in this matter, the Hearing Examiner now makes and enters the following:

A. FINDINGS AND CONCLUSIONS:

1. The information contained in Sections I and II of the Planning Staff's Advisory Report (Hearing Examiner Exhibit 52) is found by the Hearing Examiner to be supported by the evidence presented during the hearing and by this reference is adopted as portion of the Hearing Examiner's findings and conclusions. A copy of said report is available in the Planning Department.

2. The minutes of the meeting accurately summarize the testimony offered at the hearing and by this reference are entered into the official record.

3. At the hearing, staff noted that the wetlands have been thoroughly reviewed and that the Applicant's wetland consultant, the City's wetland consultant and City staff all agree on the boundaries of the wetland. However, she recommended that prior to any construction on the site, including road construction, she would like to see where everything is in relation to one another (she would like to have the roadway and wetlands checked against the property boundaries).

4. The Applicant's agent concurred with the staff advisory report and concurred with the staff recommendation that the wetlands and roadway be flagged for verification of their locations before any construction takes place.

5. If approved as conditioned below, the development will be consistent with the comprehensive plan and will meet the requirements and intent of the Marysville Municipal Code.

6. If approved as conditioned below, the development will make adequate provisions for open space, environmentally sensitive areas, drainage streets and other public ways, water supply, sanitary wastes, public utilities and infrastructure, parks and recreation facilities, playgrounds, sites for schools and school grounds.

7. If approved as conditioned below, the development will be beneficial to the public health, safety and welfare and will be in the public interest.

8. If approved as conditioned below, the development will not lower the level of service of transportation and/or neighborhood park facilities below the minimum standards established within the comprehensive plan.

9. The area, location and features of land proposed for dedication are a direct result of the development proposal are reasonably needed to mitigate the effects of the development, and are proportional to the impacts created by the development.

B. RECOMMENDATION:

Based upon the above stated findings and conclusions, the Hearing Examiner recommends approval of the preliminary plat, preliminary site plan, and rezone to PRD 4.5 subject to the following conditions:

1. Prior to construction plan approval, the applicant's engineer shall demonstrate to the satisfaction of the city's engineering staff, that hydrology to both the on-site and off-site wetlands are not negatively impacted by this development.
2. Prior to construction, the applicant shall have the wetlands and roadway boundaries flagged to verify their locations.
3. Prior to construction plan approval, the applicant shall submit documentation from the project biologist that the buffer averaging criteria can be met. Additionally, the proposed buffer averaging adjacent to the cul-de-sac shall be revised not to exceed the maximum 25% threshold, or shall be eliminated. (MDNS #1)
4. The recommendations outlined in the Habitat Management Plan shall be followed during project construction. (MDNS #2)
5. The applicant's geotechnical engineer shall closely monitor the earthwork during construction to ensure both the type of fill used is appropriate and that the fill is placed and compacted properly. A letter from the geotechnical engineer shall be submitted prior to final plat approval to verify that all of the recommendations outlined in the geotechnical investigation have been followed and that the fill has been properly placed. (MDNS #3)
6. Wetland fencing and signage adjacent to a regulated wetland or stream corridor shall be constructed with pressure treated posts and rails, and cemented into the ground with either cedar or treated rails. Alternative materials may be used subject to approval by the

City. Signs designating the presence of the environmentally sensitive area shall be posted along the buffer boundary. The signs shall be posted at a rate of 100 feet (at minimum). (MDNS #4)

7. The applicant shall participate on a proportionate share basis towards the City's street system in the amount of $20,046.00. Payment shall be made prior to final plat approval. (MDNS #5)
8. The applicant shall participate on a proportionate share basis towards the County's street system in the amount of $2,938.80. Payment shall be made prior to final plat approval. (MDNS #6)
9. The applicant shall participate on a proportionate share basis towards the signalization of the SR 9/SR528 intersection in the amount of $116.20 to off set negative impacts from this development. Payment shall be made prior to final plat approval. (MDNS #7)
10. Prior to final plat approval, the applicant shall provide a final, detailed landscape/reforestation plan that will include, but not be limited to, the following improvements:
    - Street trees spaced 40 feet on center. These trees shall be a minimum of 1½" caliper and 6' to 8' in size at the time of planting. Tree species should be selected from the City's recommended street tree listing in the streetscape plan. Concurrently with street tree installation, the applicant shall install sod within all planter strips located within public right-of-way.
    - Yard trees at a rate of two (2) trees per lot. These trees should include at least one evergreen tree, which is a native species to the Northwest region. These trees shall be a minimum of 1¼" caliper and 6' to 8' in size for deciduous and 6' in size for evergreen.
    - On-site tree retention.
    - Detention pond treatment

    (Note: Street trees to either be installed or bonded for prior to final plat approval, yard trees to be installed prior to final home inspection for that particular lot).

Dated this 31st day of March 2004

Ron McConnell, FAICP
Hearing Examiner

RECONSIDERATION:

A party to a public hearing may seek reconsideration only of a final decision by filing a written request for reconsideration with the director within fourteen (14) days of the final written decision. The request shall comply with MMC 15.11.020(3). The examiner shall consider the request within seven (7) days of filing the same. The request may be decided without public comment or argument by the party filing the request. if the request is denied, the previous action shall become final. If the request is granted, the hearing examiner may immediately revise and reissue its decision. Reconsideration should be granted only when a legal error has occurred or a material factual issue has been overlooked that would change the previous decision.

COUNCIL ACTION:

Recommendations by the Examiner on rezones or shoreline conditional use permits will constitute a final action by the City unless a timely written request for a closed record appeal is filed with the City Council within 14 days after issuance of the recommendation. In the event of a timely appeal, the City Council will conduct a closed record hearing of this case. Closed record hearings shall be on the record and no new evidence may be presented. The City Council's action will be the final action of the City.

JUDICIAL APPEAL:

(1) Appeals from the final decision of the hearing examiner, or other city board or body involving MMC Titles 15 to 20 and for which all other appeals specifically authorized have been timely exhausted, shall be made to Snohomish County superior court pursuant to the Land Use Petition Act, RCW 36.70C within 21 days of the date the decision or action became final, unless another applicable appeal process or time period is established by state law or local ordinance.

(2) Notice of the appeal and any other pleadings required to be filed with the court shall be served as required by law within the applicable time period. This requirement is jurisdictional.

(3) The cost of transcribing and preparing all records ordered certified by the court or desired by the appellant for such appeal shall be borne by the appellant. The record of the proceedings shall be prepared by the City or such qualified person as it selects. The appellant shall post with the city clerk prior to the preparation of any records an advance fee deposit in the amount specified by the city clerk. Any overage will be promptly returned to the appellant.

EXHIBITS:

The following exhibits were offered and entered into the record:

1. Wetland Delineation Report from Wetland Resources Inc.

2. Draft Scope of Services for Wetland Review 3-27-02
3. Wetland Report & Conceptual Mitigation Plan
4. Preliminary Storm Drainage Computations
5. Assessor's Map
6. Traffic Impact Fees
7. Two-Way Stop Control Summary
8. Gibson Traffic Consultants
9. Environmental Checklist
10. Wetland Report & Conceptual Mitigation Plan dated Received 3-8-02
11. Preliminary Plat Drawings 3-8-02 (Superceded)
12. Preliminary Plat Drawings 8-5-03 (Superceded)
13. Neighborhood meeting summary dated 3-14-02
14. E-mail from Brad Johnson dated 3-25-02
15. Affidavit of Publication.
16. Letter referenced Traffic Impact Fees dated 3-26-02
17. Wetland Flagging Map
18. Fax Transmittal dated 5-23-02
19. Technical Review comments dated 5-20-02
20. Revised Wetland Boundaries dated 5-21-02
21. Wetland Review dated 6-10-02
22. Revised Plat Map fax transmittal dated 12-4-02
23. Letter dated 2-4-03 Ref: increased school Mitigation fees
24. City of Marysville environmental checklist
25. Wetland Report & Conceptual Mitigation Plan received 8-5-03 (Superceded)
26. Traffic Engineering - Traffic Analysis received 8-5-03
27. Traffic mitigation offer to Snohomish County
28. Request for review checklist
29. General Civil plan review comments
30. Preliminary Plat Engineering Comments memo dated 8-20-03
31. Request for review: preliminary plat & rezone dated received 8-14-03
32. Request for review: preliminary plat & rezone dated received 8-28-03
33. Traffic Impact fees letter dated 8-27-03
34. Request for review comments dated received 8-29-03
35. Technical review comments letter dated 9-9-03
36. Letter to Ms. Schmidt dated 1-23-04
37. Fax transmittal to AJ Bredberg & John Bucher dated 9-9-03
38. Preliminary storm drainage computations received 8-5-03
39. Wildlife Survey and recommended Habitat Manage. Plan
40. Traffic mitigation offer to Snohomish County dated received 2-3-04
41. Mitigated determination of non-significance
42. City of Marysville environmental checklist dated received 1-9-04
43. Affidavit of posting
44. Fax To AFM Ind. From B&A Inc. Subj: Bucher report dated received 1-9-04
45. Snohomish county traffic study requirements traffic study checklist and mitigation

46. Preliminary plat approval dated received 2-18-04
47. Preliminary Plat dated received 1-9-04
48. Conceptual Landscape Plan
49. Tree inventory map
50. Affidavit of Posting
51. Affidavit of Publication
52. Staff Recommendation
53. Affidavit of Publication
54. Letter from Suzanne Smith received 3/25/04

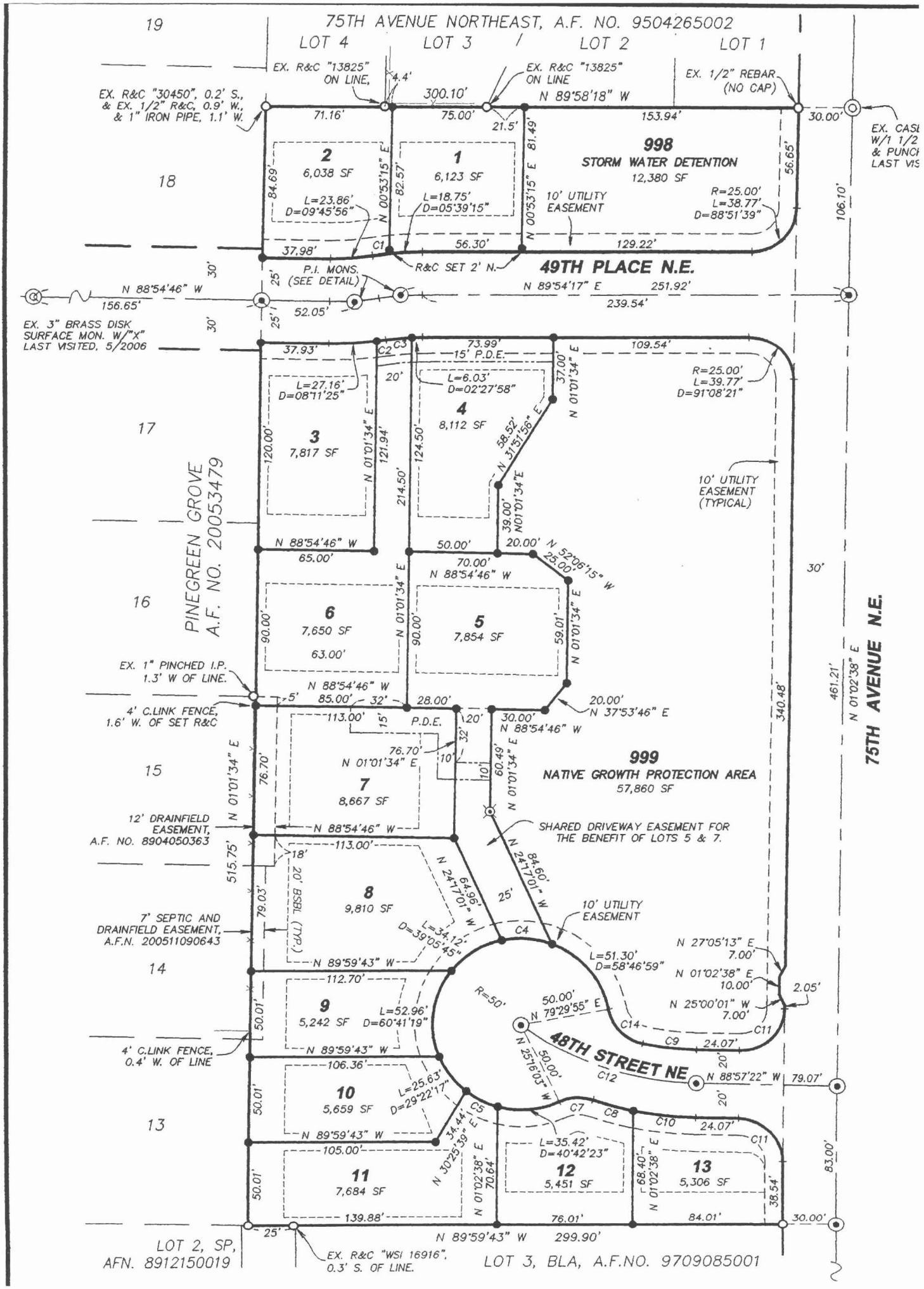
PARTIES of RECORD:

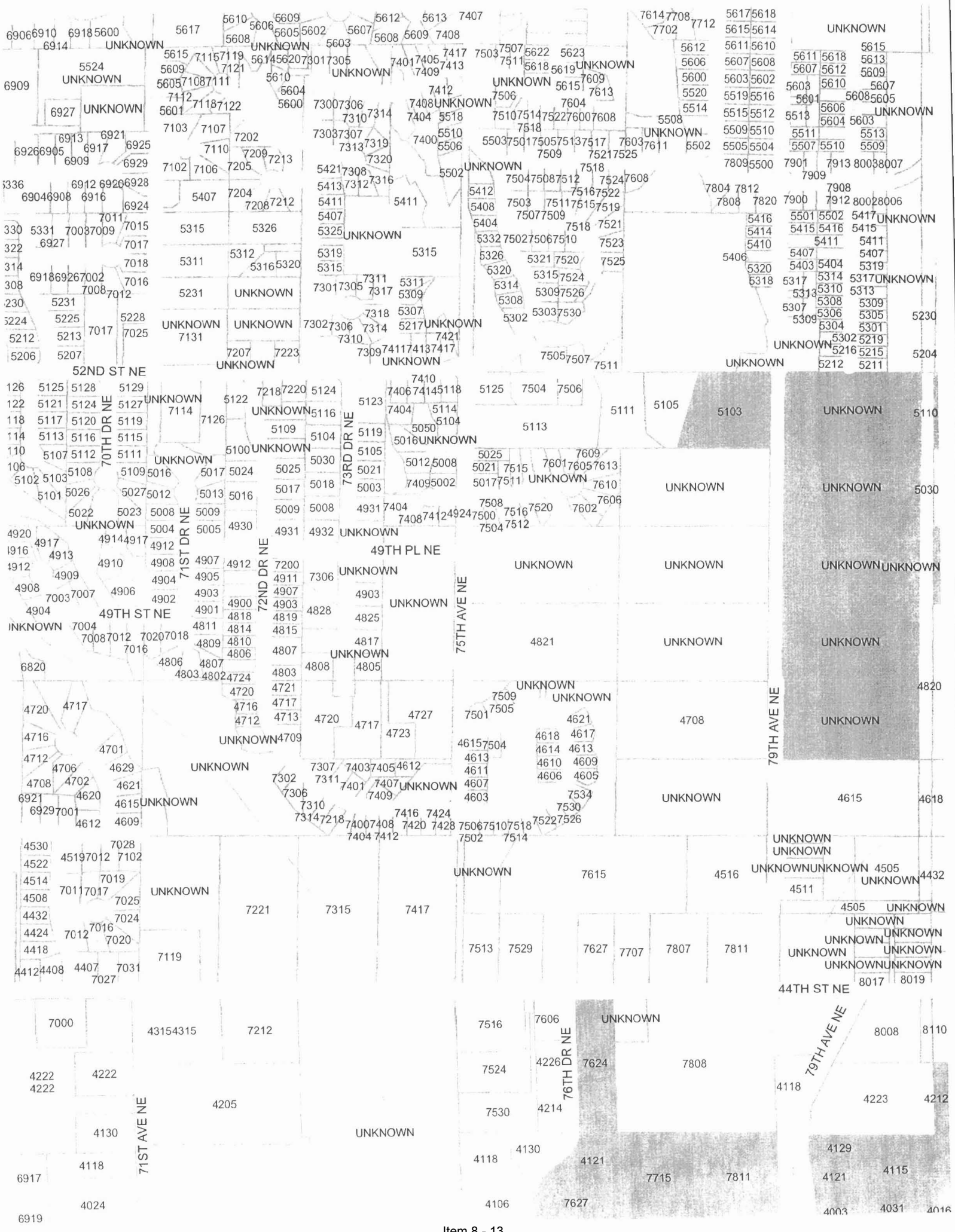
John & Ann Bucher
815 38th Ave.
Seattle, WA 98112

Bill Porter
AFM Industries
1088 Madison St., Suite C
Everett, WA 98203

Suzanne Smith & Brad Johnson
4821 75th Ave. NE
Marysville, WA 98270

Planning Department


75TH AVENUE NORTHEAST, A.F. NO. 9504265002
LOT 4
LOT 3
LOT 2
LOT 1
EX. R&C "13825" ON LINE,
EX. R&C "13825" ON LINE
EX. 1/2" REBAR (NO CAP)
EX. R&C "30450", 0.2' S., & EX. 1/2" R&C, 0.9' W., & 1" IRON PIPE, 1.1' W.
300.10'
N 89°58'18" W
71.16'
75.00'
153.94'
30.00'
EX. CASI W/1 1/2 & PUNCI LAST VIS
998
STORM WATER DETENTION
12,380 SF
2
6,038 SF
1
6,123 SF
L=23.86'
D=09°45'56"
L=18.75'
D=05°39'15"
10' UTILITY EASEMENT
R=25.00'
L=38.77'
D=88°51'39"
56.65'
106.10'
37.98'
56.30'
129.22'
R&C SET 2' N.
49TH PLACE N.E.
P.I. MONS. (SEE DETAIL)
N 88°54'46" W
156.65'
52.05'
N 89°54'17" E
251.92'
239.54'
EX. 3" BRASS DISK SURFACE MON. W/"X" LAST VISITED, 5/2006
37.93'
73.99'
15' P.D.E.
109.54'
3
7,817 SF
4
8,112 SF
L=27.16'
D=08°11'25"
L=6.03'
D=02°27'58"
R=25.00'
L=39.77'
D=91°08'21"
10' UTILITY EASEMENT (TYPICAL)
PINEGREEN GROVE
A.F. NO. 200534790
6
7,650 SF
63.00'
5
7,854 SF
65.00'
70.00'
N 88°54'46" W
50.00'
20.00'
N 52°06'15" W
25.00'
EX. 1" PINCHED I.P. 1.3' W OF LINE.
4' C.LINK FENCE, 1.6' W. OF SET R&C
85.00'
28.00'
20.00'
N 37°53'46" E
30.00'
N 88°54'46" W
999
NATIVE GROWTH PROTECTION AREA
57,860 SF
7
8,667 SF
113.00'
76.70'
N 01°01'34" E
12' DRAINFIELD EASEMENT, A.F. NO. 8904050363
SHARED DRIVEWAY EASEMENT FOR THE BENEFIT OF LOTS 5 & 7.
8
9,810 SF
84.60'
N 24°17'01" W
64.96'
7' SEPTIC AND DRAINFIELD EASEMENT, A.F.N. 200511090643
L=34.12'
D=39°05'45"
10' UTILITY EASEMENT
L=51.30'
D=58°46'59"
N 27°05'13" E
7.00'
N 01°02'38" E
10.00'
N 25°00'01" W
7.00'
2.05'
9
5,242 SF
L=52.96'
D=60°41'19"
R=50'
50.00'
N 79°29'55" E
48TH STREET NE
4' C.LINK FENCE, 0.4' W. OF LINE
10
5,659 SF
L=25.63'
D=29°22'17"
N 88°57'22" W
79.07'
11
7,684 SF
12
5,451 SF
13
5,306 SF
L=35.42'
D=40°42'23"
N 30°25'39" E
34.44'
N 01°02'38" E
70.64'
68.40'
38.54'
83.00'
139.88'
76.01'
84.01'
N 89°59'43" W
299.90'
LOT 2, SP, AFN. 8912150019
EX. R&C "WSI 16916", 0.3' S. OF LINE.
LOT 3, BLA, A.F.NO. 9709085001
75TH AVENUE N.E.
461.21'
N 01°02'38" E
340.48'


52ND ST NE
49TH PL NE
49TH ST NE
44TH ST NE
70TH DR NE
71ST DR NE
72ND DR NE
73RD DR NE
75TH AVE NE
76TH DR NE
79TH AVE NE
71ST AVE NE
UNKNOWN

LEGAL DESCRIPTION

THE SOUTH HALF OF THE EAST HALF OF THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 35, TOWNSHIP 30 NORTH, RANGE 5 EAST, W.M. IN SNOHOMISH COUNTY WASHINGTON.

EXCEPT THE NORTH 20 FEET FOR ROAD PURPOSES AS RECORDED IN VOLUME 234 OF DEEDS ON PAGE 144;

AND EXCEPT THE EAST 30 FEET FOR ROAD PURPOSES AS RECORDED UNDER AUDITOR'S FILE NUMBER 924820, RECORDS OF SNOHOMISH COUNTY, WASHINGTON.

CITY OF Marysville WASHINGTON

COMMUNITY DEVELOPMENT DEPARTMENT
80 Columbia Avenue, Marysville, WA 98270
(360) 363-8100, (360) 651-5099 FAX

FINAL PLAT CHECK LIST

Plat Name:	Waldow Heights	PA #	0011055

Item	Department	Initials	Date
1. Plat Map- Checked & Approved	Land Dev.		4/30/07
	Planning	CDD	4/30/07
2. Letter of Segregation to Assessor	Planning	CDD	4/30/07
3. Water System/Sewer System			
Letter of Acceptance	Const. Insp.		4/27
Asbuilts – Including Digital Files	Const. Insp.	RKH	4/27
Bill(s) of Sale	Const. Insp.		4/30
Maintenance and Warranty Funding	Const. Insp.		4/17
4. Road/Storm Sewer			
Letter of Acceptance	Const. Insp.		4/27
Asbuilts – Including Digital Files	Const. Insp.		4/27
Bill(s) of Sale	Const. Insp.		4/30
Maintenance and Warranty Funding	Const. Insp.		4/17
5. Performance Bond – Submitted/Approved			
(If Required - Road and Storm Drain Only)	Const. Insp.		4/17
6. Inspection Fees - Calculated and Paid	Const. Insp.		4/30
7. Final Plat Fee - Calculated and Paid	Planning	CDD	4/30/07
8. TIP Fees: City $20,046.00 County $2,938.00	Planning	CDD	4/30/07
9. Parks Mitigation Fees: $14,495	Planning	Prior to bldg permit	CDD 4/30/07
10. School District Mitigation Fees: $109,642.00	Planning	Prior to Bldg permit	CDD 4/30/07
11. Signage and Striping Installed	Const. Insp.		4/30
12. Final Grading and TESC Inspection	Const. Insp.		3.09

13. Satisfied Hearing Examiner's Conditions of Approval	Planning	CDD	4/30/07
14. Utility/Recovery/Main Fees	Land Dev.	DJ	4/30/07

Plat Approved for Recording:
Community Development Director:
Date:
City Engineer:
Date:
Note: The final plat will not be scheduled before the City Council until this checklist is complete.

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

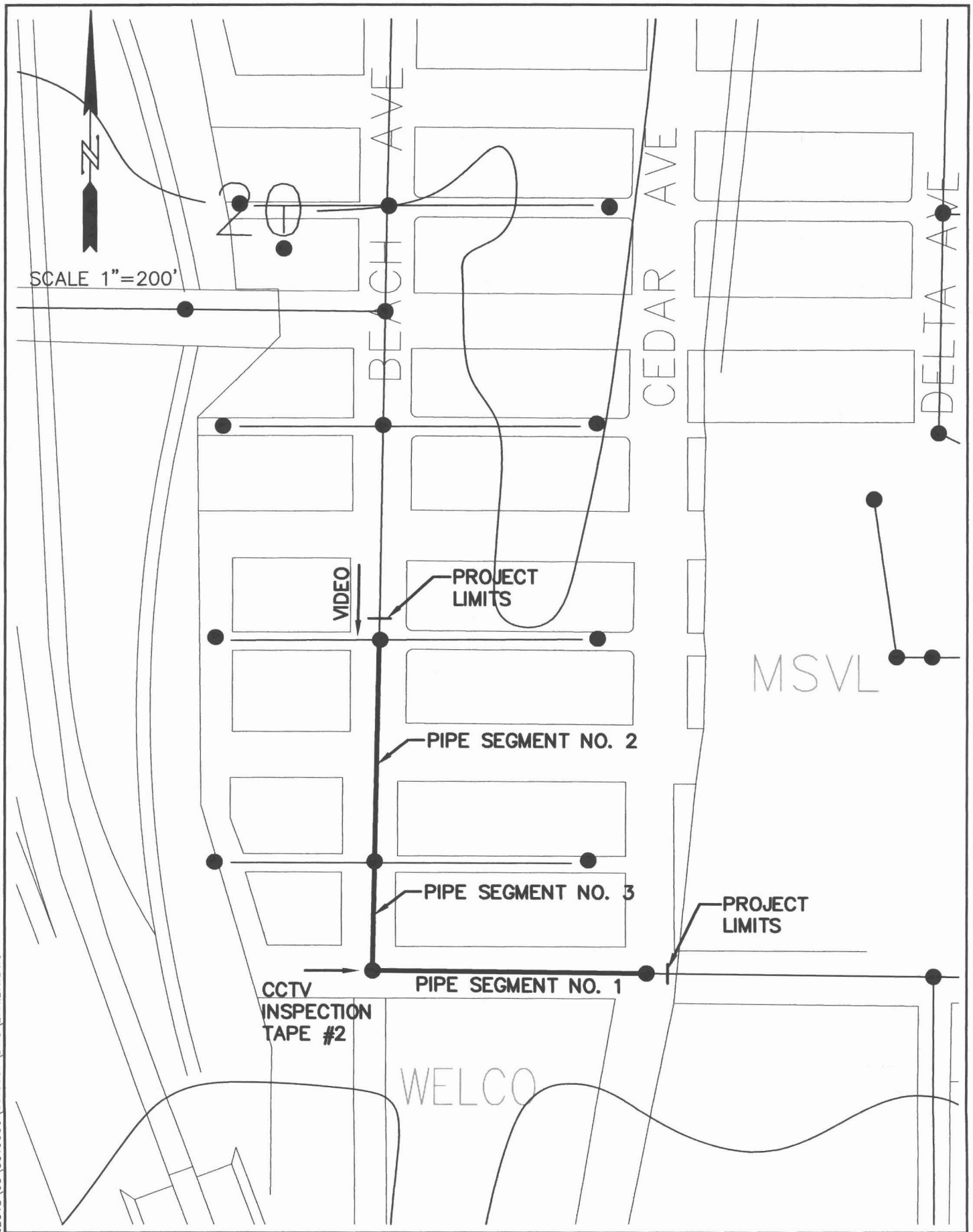
AGENDA ITEM: Project Acceptance: 2006 Sewer Replacement Project	AGENDA SECTION: New Business
PREPARED BY: David Zull, Project Manager I	AGENDA NUMBER:
ATTACHMENTS: Location Maps (2)	APPROVED BY: MAYOR / CAO
BUDGET CODE:	AMOUNT:

The City Council awarded the "2006 Sewer Replacement Project" contract to Snelson Companies, Inc., on July 24, 2006, in the amount of $474,571.41, including State Sales Tax.

Snelson Companies completed the work for this project on January 19, 2007. The project contract was completed at a total cost of $413,938.00, which is $60,633.41 below the original bid amount.

The work performed under this Contract was inspected by City Engineering staff and found to be physically complete in accordance with the approved plans and specifications. Staff recommends Council's acceptance of the project for closeout.

RECOMMENDED ACTION: **Staff recommends project acceptance of the 2006 Sewer Replacement project to start the 45-day lien filing period for project closeout.**
COUNCIL ACTION:

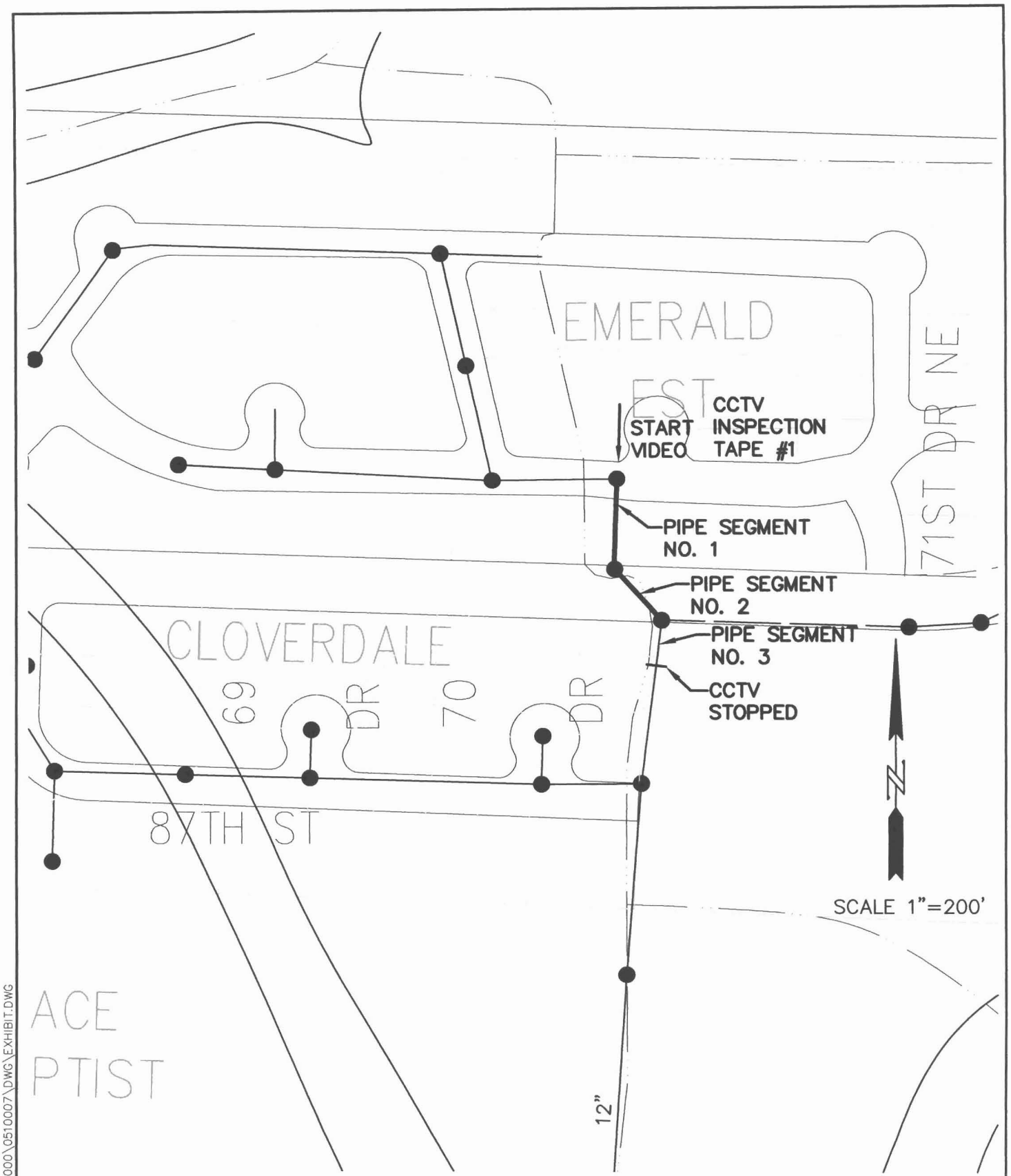


HAMMOND COLLIER
WADE LIVINGSTONE

SEATTLE (206) 632-2664 | WENATCHEE (509) 662-1762 | OMAK (509) 826-5861 | LAKEWOOD (253) 472-1992

CITY OF MARYSVILLE
1ST STREET & BEACH AVE
SEWER IMPROVEMENTS
FIGURE 1

\\FS1\VOL1\PROJECTS\05\0510000\0510007\DWG\EXHIBIT.DWG



\\FS1\VOL1\PROJECTS\05\0510000\0510007\DWG\EXHIBIT.DWG

HAMMOND COLLIER
WADE LIVINGSTONE

SEATTLE (206) 632-2664 | WENATCHEE (509) 662-1762 | OMAK (509) 826-5861 | LAKEWOOD (253) 472-1992

CITY OF MARYSVILLE
88TH PL NE & NE 87TH ST
SEWER IMPROVEMENTS
FIGURE 2

CITY OF MARYSVILLE
EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING: May 14, 2007

AGENDA ITEM: Water and Sewer Mutual Aid Agreement with Everett Water Utilities Committee (EWUC)	AGENDA SECTION:
PREPARED BY: Larry Larson, Public Works Superintendent	AGENDA NUMBER:
ATTACHMENTS: 1) Revised Water and Sewer Mutual Aid Agreement 2) Resolution	APPROVED BY: MAYOR / CAO
BUDGET CODE:	AMOUNT:

SUMMARY STATEMENT

The City of Marysville entered into a Water and Sewer Mutual Aid Agreement with EWUC (Everett Water Utilities Committee) in 1995. The purpose of this agreement was to provide personnel, materials and equipment to other Purveyors who are parties to the agreement and who request assistance to handle a disaster or emergency.

The council authorized the Mayor to sign an update to the Agreement on July 24, 2006. However, the finalized agreement (June 26, 2006) had a text error in Section 6 (Indemnification). This correction requires signature on the corrected agreement.

The City attorney has reviewed the revised Water and Sewer Mutual Aid Agreement.

RECOMMENDED ACTION: Public Works staff recommends the Council authorize the Mayor to sign the corrected Water and Sewer Mutual Aid Agreement with EWUC.
COUNCIL ACTION:

WATER AND SEWER MUTUAL AID AGREEMENT - 2006

THIS MUTUAL AID AGREEMENT is by and between all water and sewer utilities (Purveyors) in Snohomish County that have approved this Agreement, who are authorized to provide the benefits and undertake the obligations contained in this Agreement, and have executed this Agreement.

RECITAL

Subject to the terms and conditions below, each of the Purveyors agrees to provide personnel, materials and equipment to other Purveyors who are parties to this Agreement and who request assistance to handle a disaster or emergency.

AGREEMENT

It is agreed by the Purveyors as follows:

1. Request for Assistance. A Purveyor, through its Designated Official, may request another Purveyor to send personnel, materials and equipment to deal with a disaster or emergency. A request for assistance may be oral or written. If the request is oral, it shall be confirmed in writing by the requesting Purveyor's Designated Official as soon as practicable after the request. A written request or confirmation shall be in a form sufficient to demonstrate that it was made by a Designated Official. Each request or confirmation shall describe the equipment, personnel, materials, and other resources that are needed to address the disaster or emergency.

2. Definition of Disaster or Emergency. A disaster or emergency is an event or situation which (1) demands immediate action to preserve public health or protect life or property or (2) reaches a dimension or degree of destructiveness as to warrant the Governor of the State of Washington declaring a state of emergency.

3. Response to Request. The responding Purveyor, through its Designated Official, should, as soon as reasonably possible determine whether personnel, materials and equipment are available to respond to the request for disaster or emergency assistance. Following that determination, the responding Purveyor's Designated Official should, as soon as reasonably possible advise the requesting Purveyor of the availability of personnel, materials and equipment; and, if any or all of such items are available, the approximate time when such will be provided. The judgment of the responding Purveyor's Designated Official shall be final as to the availability of personnel, materials and equipment. A responding Purveyor shall not be liable to the requesting Purveyor or any person or entity for failing to respond to a request for assistance or provide personnel, materials and equipment. By signing this Agreement, any party who requests assistance pursuant to this Agreement waives and releases all claims for damages of any kind against any other party who fails to respond to a request for, or does not provide assistance, personnel, materials or equipment.

4. Control of Personnel and Equipment. Personnel and equipment of the responding Purveyor that are made available to the requesting Purveyor shall, to the fullest extent possible, remain under the control and direction of the responding Purveyor; the responding Purveyor shall be and remain at all times an independent contractor. The responding Purveyor's employees shall remain solely the employees of the responding Purveyor. The requesting

Purveyor shall coordinate the activities of personnel and equipment of the responding Purveyor, provided however, employees of the responding Purveyor remain employees of the responding Purveyor while performing functions and duties on behalf of the requesting Purveyor. The responding Purveyor shall retain the right to withdraw at any time some or all of its personnel, materials and equipment for any reason. Notice of intention to withdraw shall be communicated to the requesting Purveyor's Designated Official, as soon as possible; however, it need not be in writing. A responding Purveyor shall not be liable to the requesting Purveyor or any person or entity for first providing personnel, materials or equipment and later withdrawing some or all of the same personnel, materials or equipment, according to the provisions of this Agreement. By signing this Agreement, any party who requests assistance pursuant to this Agreement waives and releases all claims for damages of any kind against the responding Purveyor for withdrawing some or all of its personnel, materials or equipment that were provided pursuant to this Agreement.

5. Status of Personnel. All privileges, immunities, rights, duties and benefits of officers and employees of the responding Purveyor shall apply while those officers and employees are performing functions and duties on behalf of the requesting Purveyor, unless otherwise provided by law.

6. Indemnification. To the extent permitted by law, the requesting Purveyor shall protect, defend, hold harmless and indemnify all other responding signatory Purveyors, and their officers and employees from any and all claims, suits, costs, damages of any nature, or causes of action, including the cost of defense and attorneys fees, by reason of the acts or omissions, whether negligent, willful, or reckless, of the requesting Purveyor's officers, employees, and

agents arising out of or in connection with any acts or activities authorized by this Agreement, and will pay all judgments, if any, rendered. This obligation shall not include such claims, costs, damages or other expenses which may be caused by the sole negligence of the responding Purveyors or their authorized agents or employees.

This indemnity obligation extends to all claims against the responding Purveyor by an employee or former employee of the requesting Purveyor, and for this purpose, by mutual negotiation, the requesting Purveyor expressly waives as respects to the responding Purveyor only, all immunity and limitation and liability under any industrial insurance act, including Title 51, other worker's compensation act, disability benefit act, or other employee benefit act of any jurisdiction which would otherwise be applicable in the case of such claim.

7. Insurance. A Purveyor shall maintain insurance or adequately self-insure for the activities of its personnel and equipment while operating under this Agreement.

8. Cost Reimbursement. The requesting Purveyor shall reimburse the responding Purveyor for the actual cost of providing assistance. The reimbursement will be based upon the responding Purveyor's regular schedule of hourly rates for personnel and equipment, and the actual costs of materials, reasonable food, lodging and out-of-pocket expenses; reimbursement shall include all salaries, benefits, administrative costs and overhead of the responding Purveyor, determined in accordance with the responding Purveyor's then-existing regularly adopted policies and practices. Reimbursement shall be made within 90 days after receipt by the requesting Purveyor of an itemized voucher of costs. The requesting Purveyor shall have the right to audit books and records related to the cost of providing assistance.

9. Authorization: Effective Date: Duration. A Purveyor shall authorize and approve this Agreement by formal action of its governing body. This Agreement shall be effective upon authorizing actions by two or more Purveyors and is subject to the termination procedures set out herein, and shall remain in effect as long as two or more authorizing actions are in effect. Upon an authorizing action and execution of this Agreement, a Purveyor shall send a certified copy of the action and the Agreement to the City of Everett. The Everett Utilities Director shall maintain a list of mutual aid Purveyors hereunder and the job title of their respective Designated Officials and shall send an updated list to all Purveyors annually, and whenever Purveyors are added to or eliminated from the list or whenever a Purveyor changes the job title or title holder of its Designated Official for this Agreement.

10. Rescission of Prior Agreements.

This Agreement, once formally authorized by each signing Purveyor, shall, one at a time, immediately supersede and rescind that same signing Purveyor's prior SEWER AND WATER MUTUAL AID AGREEMENT (developed in 1995) with all other signers of that Agreement.

11. Termination. This Agreement shall remain binding upon a Purveyor until that Purveyor repeals or revokes its authorizing action. Upon repeal or revocation, the Purveyor shall send a certified copy of the action to the Everett Utilities Director. Withdrawal from this Agreement shall not relieve the withdrawing Purveyor from the obligations incurred under this Agreement prior to the effective date of the withdrawal, which is the date upon which the withdrawing Purveyor delivers a copy of its repealing action or revocation to the Utilities Director for the City of Everett.

12. No Third Party Rights. This Agreement is for the benefit of the Purveyors who are active parties to this Agreement and no other person or entity shall have any rights under this Agreement as a third party beneficiary nor shall any Purveyor owe any duty to a third party not a signatory of this Agreement by virtue of this Agreement.

13. Designated Official. All Agreement references to the Designated Official, whose job title is identified at the end of this Agreement, shall refer to the holder of that job title or his or her designee. The Purveyor may, at its discretion, change the job title of their Designated Official by notifying the City of Everett.

Job Title of Designated Official for the purposes of initiating this Agreement:

Public Works Superintendent

City of Marysville

By (Signature)_____

Dennis L. Kendall, Mayor

Dated: _____

ATTEST:

By (Signature)_____

City Clerk

Dated: _____

APPROVED AS TO FORM:

By (Signature)_____

Grant K. Weed, City Attorney

Dated: _____

CITY OF MARYSVILLE

Marysville, Washington

RESOLUTION NO. _____

A resolution of the City of Marysville, Snohomish County, Washington, to authorize the Mayor to sign the Water and Sewer Mutual Aid Agreement – 2006 for the provision of personnel, materials and equipment to other water and sewer utilities (Purveyors) in Snohomish County who are parties to this Agreement and who request assistance to handle a disaster or emergency.

WHEREAS, on September 11, 1995 City of Marysville Resolution No. 1743 authorized the Mayor to sign the Sewer and Water Mutual Aid Agreement for the provision of personnel and equipment in disasters and emergencies, and

WHEREAS, the Mayor signed the Sewer and Water Mutual Aid Agreement as authorized by Resolution No. 1743, and

WHEREAS, signatories to the Sewer and Water Mutual Aid Agreement (developed in 1995) have jointly proposed language revisions to clarify the terms and conditions for their existing Sewer and Water Mutual Aid Agreement, and

WHEREAS, the Marysville City Council has the power and authority to approve the signing of the Water and Sewer Mutual Aid Agreement – 2006, for the purpose of providing personnel, materials and equipment to other water and sewer utilities (Purveyors) of Snohomish County who are parties to this Agreement and who request assistance to handle a disaster or emergency, and

WHEREAS, the City of Marysville has reviewed the Water and Sewer Mutual Aid Agreement – 2006, attached hereto as Exhibit A (which document is made a part hereof by this reference and are available for public inspection in the office of the City Clerk of the City of Marysville, and

WHEREAS, the City Council, finds that it is in the best interest of the City of Marysville and its water and sewer system customers to secure participation in mutual aid with other Purveyors of Snohomish County for responding to disasters and emergencies;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Marysville, Washington as follows:

1. The City Council approves and the Mayor is authorized to sign the Water and Sewer Mutual Aid Agreement – 2006 attached to this resolution.

2. The authorization of the Water and Sewer Mutual Aid Agreement - 2006 shall immediately supersede and rescind the City of Marysville's prior signatory to the Sewer and Water Mutual Aid Agreement (developed in 1995).

3. The City Clerk is directed and authorized to send a certified copy of this resolution to the Everett Utilities Director.

PASSED by the City Council and APPROVED by the Mayor this _____ day of _____ 2007.

CITY OF MARYSVILLE

_____
Mayor

Attest:

_____
City Clerk

Approved as to Form:

_____
City Attorney

U:\Documents\Resolution WATER AND SEWER MUTUAL AID AGREEMENT.doc

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Marysville School District #25 – Surface Water Rate Reduction	AGENDA SECTION: New Business
PREPARED BY: Kari Chennault, Program Engineer – Surface Water	AGENDA NUMBER:
ATTACHMENTS:	APPROVED BY: MAYOR / CAO
BUDGET CODE: N/A	AMOUNT: N/A

Ordinance No. 2654 was adopted by Marysville Council Members in July of 2006. In this ordinance section 14.19.080 (b) allowed for public education institutions to be eligible for a surface water rate reduction based on a curriculum plan presented to and approved by Marysville Council Members.

On April 16, 2007 Marysville School District #25 presented a curriculum plan to Marysville Council Members.

RECOMMENDED ACTION: Staff recommends that Council approve the curriculum plan presented by Marysville School District #25 and allow for a 100% surface water rate reduction to be applicable for five years. Staff also recommends Council require an end of the year progress update from the District.
COUNCIL ACTION:

G:\Shared\Engineering\Surface Water\SW_RATES\Schools\05.14.07.agenda bill.docx

CITY OF MARYSVILLE
EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2006

AGENDA ITEM: Interlocal Agreement with Snohomish County regarding the 51st Avenue NE / 122nd Place NE Intersection Improvements Project	AGENDA SECTION: New Business
PREPARED BY: Paul Federspiel, Associate Engineer II	AGENDA NUMBER:
ATTACHMENTS: • Interlocal Agreement with Snohomish County • Map Exhibit	APPROVED BY: MAYOR / CAO
BUDGET CODE: 40100034 560000	AMOUNT: $369,556 City portion

Snohomish County intends to construct improvements on 51st Avenue NE from 121st Street NE to 123rd Street NE during 2007. The improvements will alleviate sight distance issues through the section of 51st Avenue across Quilceda Creek by lowering the roadway on either side and raising it through the low point. The County will also be replacing the existing metal pipe culvert with a considerably larger concrete box culvert. In addition to improved sight distance, the County will widen the roadway to allow a left turn lane to 122nd Place and install traffic signals.

The County has retained the services of Perteet Inc. to prepare plans, specifications and estimates for the project improvements. Per the franchise agreement between the City of Marysville and Snohomish County, the City is required to adjust its water and sewer utilities to conform to the new roadway grades and drainage facilities.

The scope and estimated cost required to address the water and sewer utility adjustment exceed the limitations allowing City forces to relocate water and sewer facilities. To ensure continuity and to limit potential conflicts, the City desires to enter into an interlocal agreement with Snohomish County to include the design of the water and sewer utility adjustments in the scope of work currently being prepared by Perteet Inc., include the City water and sewer relocation in the County's construction contract, and reimburse the County for applicable costs.

RECOMMENDED ACTION: **City staff recommends that City Council authorize the Mayor to sign the Interlocal Agreement with Snohomish County in the amount of $369,556.00 for the 51st Avenue / 122nd Place NE Intersection Improvements Project.**
COUNCIL ACTION:

After recording return to:
Snohomish County Council
Attn: Barbara Sikorski
3000 Rockefeller, M/S 609
Everett, Washington 98201

COPY

Agencies: Snohomish County and City of Marysville
Tax Account No.: N/A
Legal Description: N/A
Reference No. of Documents Affected: Not Applicable
Filed with the Auditor pursuant to RCW 39.34.040
Document Title:

INTERLOCAL AGREEMENT BETWEEN SNOHOMISH COUNTY AND THE CITY OF MARYSVILLE FOR UTILITY RELOCATION AND CONSTRUCTION ASSOCIATED WITH THE 51ST AVENUE NE / 122ND PLACE NE INTERSECTION PROJECT

THIS AGREEMENT is made and entered into by and between the CITY OF MARYSVILLE, a municipal corporation of the State of Washington, hereinafter referred to as the "CITY," and SNOHOMISH COUNTY, a political subdivision of the State of Washington, hereinafter referred to as the "COUNTY."

WHEREAS, the COUNTY has determined that construction of improvements on 51st Avenue NE from 121st Street NE to 123rd Street NE, also known as County Road Project RC1237 and hereinafter referred to as the "PROJECT," is necessary in order to provide an acceptable level of road and pedestrian safety; and

WHEREAS, the COUNTY is the lead agency for the design and construction of the PROJECT; and

WHEREAS, the CITY holds a COUNTY franchise for occupancy by CITY utilities of COUNTY road rights-of-way and is required, as a condition of its franchise and state law, to relocate its facilities at its own expense to accommodate COUNTY road improvements; and

WHEREAS, the CITY desires to upgrade and relocate some of its water and sewer facilities located within the right-of-way limits of the PROJECT; and

WHEREAS, it is deemed to be in the best interest of the public and the CITY to incorporate the CITY's water and sewer facilities work, hereinafter called the "UTILITY WORK," as requested by the CITY, into the COUNTY's construction plans and contract for the PROJECT; and

WHEREAS, the parties are authorized to enter into an interlocal agreement pursuant to chapter 39.34 RCW in order to jointly accomplish the UTILITY WORK;

NOW THEREFORE, it is mutually agreed as follows:

I. PURPOSE

The purpose of this Agreement is to set forth the mutual obligations, responsibilities and rights of the COUNTY and the CITY for the accomplishment of the UTILITY WORK described in Exhibit A, which is attached hereto and incorporated herein by this reference. No separate legal entity is created by this Agreement.

II. DURATION

This Agreement shall become effective immediately upon execution by all parties and recording with the Snohomish County Auditor and shall remain in effect until the UTILITY WORK has been accepted by the CITY and the CITY has paid the COUNTY in full, unless terminated sooner, as provided herein. The parties anticipate the UTILITY WORK will be completed by December 31, 2008.

III. COUNTY RESPONSIBILITIES

A. The COUNTY shall act as the lead agency for the PROJECT and shall accomplish the UTILITY WORK described in Exhibits A and B on behalf of the CITY in conjunction with the PROJECT. The COUNTY shall be responsible for compliance with the Local Agency Guidelines, published by the Washington State Department of Transportation, during the design and construction phases of the PROJECT. The COUNTY's project manager shall act as the administrator of this cooperative undertaking.

B. The COUNTY shall (i) include the CITY's plans and specifications for the UTILITY WORK in the PROJECT's plans and specifications, PROVIDED that inclusion does not result in any delay in the scheduled advertising date for the PROJECT contract; (ii) print and distribute the Contract Specifications and Plans; (iii) administer the advertisement for construction; (iv) award and administer the contract, including accounting, payment of the contractor selected by the COUNTY (the "Contractor"), and keeping the PROJECT records. After awarding the contract, the COUNTY will arrange a preconstruction conference with the Contractor(s) and invite the CITY to attend and participate.

C. The COUNTY reserves the right to review and reject the CITY's plans and specifications for the UTILITY WORK not in compliance with COUNTY standards or not in conformance with the COUNTY's plans and specifications for the PROJECT. Ultimate responsibility for accuracy and completeness of the CITY's plans for the UTILITY WORK, however, rests with the CITY.

D. The COUNTY, acting for and on behalf of the CITY, shall provide construction engineering and inspection services for the UTILITY WORK based upon the plans and specifications approved and provided by the CITY. The COUNTY will provide copies to the CITY of all daily inspection reports for work involving the CITY's facilities on a weekly basis. Inspection of construction activities by the COUNTY shall not constitute a guarantee or warranty of the adequacy of performance.

E. The COUNTY shall bill the CITY for costs related to the UTILITY WORK in accordance with the payment provisions of Section VI of this Agreement.

F. The COUNTY shall provide the CITY a hard copy of the "as-built" plans/mark-up sheets showing the completed UTILITY WORK, PROVIDED that construction of said UTILITY WORK has been completed under the terms of this Agreement. If the Agreement is terminated prior to completion of the UTILITY WORK, the COUNTY shall provide the CITY a hard copy of the "as-built" plan sheets of the completed work. The COUNTY will retain and file the original mylar plan sheets and all other PROJECT records.

G. Any obligations of the COUNTY beyond the current fiscal year are subject to local legislative appropriation of funds for the specific purpose of funding this PROJECT in accordance with the COUNTY Charter and applicable law.

IV. CITY RESPONSIBILITIES

A. The CITY shall be solely responsible for all costs associated with preliminary engineering, construction, inspection, and contract administration related to the UTILITY WORK, and shall reimburse the COUNTY for such costs in accordance with the terms of Section VI of this Agreement.

B. The CITY shall submit to the COUNTY engineering plans and specifications for the UTILITY WORK based upon the 2006 English edition of the Standard Specifications for Road, Bridge, and Municipal Construction of the Washington State Department of Transportation (WSDOT), as modified by the COUNTY for COUNTY projects.

C. The CITY shall comply with the terms of the franchise agreement between the CITY and the COUNTY, including but not limited to, COUNTY design standards and specifications, and Chapter 136-40 WAC, "Standards of Good Practice - Accommodation of Utilities on County Road Right of Way."

D. The CITY shall make all reasonable efforts to cooperate with the COUNTY's Contractor in facilitating the UTILITY WORK, and make necessary personnel available so as to not delay the Contractor's construction schedule. The CITY shall be responsible for any additional PROJECT costs to the COUNTY that result from delays in the UTILITY WORK that are caused by the CITY.

E. The CITY shall, within ten (10) calendar days after notification of completion of the UTILITY WORK, issue written notification to the COUNTY of any deficiencies or of acceptance of the work. The COUNTY's Contractor shall correct any deficiencies. If, after the ten (10) day period, notification has not been received by the COUNTY, the UTILITY WORK shall be considered complete and accepted by the CITY.

F. The CITY may, if it desires, furnish an inspector for the UTILITY WORK. Any costs for such inspection will be borne solely by the CITY. All contact between said inspector and the County's Contractor shall be through the COUNTY's on-site representative who shall be identified at the preconstruction conference.

G. The CITY shall maintain the facilities constructed as the UTILITY WORK under this Agreement from the date of acceptance of the UTILITY WORK by the CITY. In accordance with this Agreement and the terms of the CITY's franchise, the cost of any future improvements and/or maintenance, repairs, or corrections to any utility facilities covered under the terms of this Agreement shall be the exclusive responsibility of the CITY unless covered during the contract performance period.

H. Any obligations of the CITY beyond the current fiscal year are subject to local legislative appropriation of funds for the specific purpose of funding this PROJECT in accordance with applicable law.

V. CONTRACTOR RESPONSIBILITIES

The COUNTY shall provide in its contract documents with the Contractor for the PROJECT that the Contractor shall provide and bear the expense of all equipment, work and labor that may be required for the transfer of materials and for constructing and completing the UTILITY WORK provided in this Agreement, unless otherwise provided in the specifications for the PROJECT, and that the Contractor shall guarantee said materials and work for a period of one (1) year after approval and final acceptance of the UTILITY WORK by the CITY. In addition, the COUNTY's contract documents shall require the Contractor to be responsible for performing the UTILITY WORK in accordance with all applicable laws and regulations, including, but not limited to, all applicable environmental statutes and regulations.

VI. PAYMENT

A. The CITY agrees to reimburse the COUNTY for all costs associated with the UTILITY WORK. The CITY's estimate of costs is shown in Exhibit B, Preliminary Cost Estimate, which is attached hereto and incorporated herein by this reference.

B. The COUNTY shall provide the CITY monthly with properly executed invoices showing expenditures during the previous month on the UTILITY WORK. Invoices shall be based on the Contractor's payments, equipment, materials and labor expended on the UTILITY WORK, plus COUNTY expenditures in support of the UTILITY WORK as described in Section VI.C. below. Invoices shall be paid by the CITY within thirty (30) days of receipt by the CITY without offset or deduction for any reason. Notice of any potential dispute regarding such payment request shall be made in writing within the same time period. Payment by the CITY shall not constitute agreement as to the appropriateness of any item or acceptance of the work so represented. At the time of final audit, all required adjustments related to any potential dispute for which notice has been timely given shall be made and reflected in a final payment.

C. The CITY shall pay the COUNTY for the following costs:

(1) One hundred percent (100%) of the final cost of all contract items related to the CITY's UTILITY WORK, as shown in the bid proposal of the successful bidder; and

(2) Actual costs of COUNTY expenditures for engineering (labor and equipment), contract administration and construction inspection for the CITY's UTILITY WORK, as described in Exhibit A, plus 15% (labor only) for administrative overhead; and

(3) The cost of any extra work associated with the UTILITY WORK within the percentage amount of the "Contingency" as shown in Exhibit B, and any costs for extra work that have been approved in accordance with Section IX.

D. Upon completion of the PROJECT, the COUNTY shall conduct a final audit of the PROJECT in accordance with standards of the Washington State Department of Transportation. At the time of the final audit, all adjustments required shall be made and shall be reflected in a final billing to the CITY. Within thirty (30) days of receipt of the audit and final billing, the CITY shall notify the COUNTY in writing of any objections to the audit and/or billing. If no objections are timely filed, the CITY shall make final payment to the COUNTY and such final payment shall constitute an acceptance by the CITY of the COUNTY's costs and accounting.

VII. HOLD HARMLESS AND INDEMNIFICATION

A. The CITY shall hold harmless, indemnify and defend the COUNTY, its officers, appointed and elected officials, employees and agents, from and against any and all claims, actions, suits, liability, loss, expenses, damages and judgments of any nature whatsoever, including costs and attorney's fees in defense thereof, for injury, sickness, disability or death to persons or damage to property or business, caused by or arising out of the CITY's negligent or intentional acts, errors or omissions in the performance of this Agreement and arising by reason of the CITY's participation in this PROJECT; PROVIDED, HOWEVER, that the CITY's obligation hereunder shall not extend to injury, sickness, death or damage caused by or arising out of the sole negligence of the COUNTY, its officers, elected and appointed officials, employees or agents; PROVIDED FURTHER, that in the event of the concurrent negligence of the parties, the CITY's obligations hereunder shall apply only to the percentage of fault attributable to the CITY, its officers, officials, employees or agents.

B. The COUNTY shall hold harmless, indemnify and defend the CITY, its officers, appointed and elected officials, employees and agents, from and against any and all claims, actions, suits, liability, loss, expenses, damages and judgments of any nature whatsoever, including costs and attorney's fees in defense thereof, for injury, sickness, disability or death to persons or damage to property or business, caused by or arising out of the COUNTY's negligent or intentional acts, errors or omissions in the performance of this Agreement and arising by reason of the COUNTY's participation in this PROJECT; PROVIDED HOWEVER, that the COUNTY's obligation hereunder shall not extend to injury, sickness, death or damage caused by or arising out of the sole negligence of the CITY, its officers, elected and appointed officials, employees or agents; PROVIDED FURTHER, that in the event of the concurrent negligence of the parties, the COUNTY's obligations hereunder shall apply only to the percentage of fault attributable to the COUNTY, its officers, elected and appointed officials, employees or agents.

C. The parties hereby agree that, except as expressly set forth in this Agreement, the performance of services pursuant to this Agreement shall not constitute an assumption by the COUNTY of any CITY obligations or responsibilities.

VIII. TERMINATION

A. The COUNTY has the right to terminate this Agreement by providing written notice to the CITY if the COUNTY determines not to undertake the PROJECT or to discontinue the PROJECT, in which case the CITY shall only be responsible for costs incurred by the COUNTY for the UTILITY WORK prior to the COUNTY's notice of termination.

B. The CITY has the right to terminate this Agreement by providing written notice to the COUNTY prior to the award of the construction contract, in which case the CITY shall be responsible for all costs incurred by the COUNTY in executing the necessary contract changes to delete the UTILITY WORK from the PROJECT.

C. After award of the construction contract by the COUNTY, the CITY may terminate this Agreement only upon thirty (30) days' prior written notice to the COUNTY. In that event, the CITY shall be responsible for all costs incurred by the COUNTY and all bona fide costs claimed by the Contractor in performing the UTILITY WORK up to and including the date of termination and in deleting the UTILITY WORK from the PROJECT.

IX. EXTRA WORK

There may be unforeseen conditions requiring immediate resolution during the construction phase of the PROJECT, such as construction disputes and claims, changed conditions and changes in the construction work. Reimbursement for increased construction engineering and/or construction contract amounts for the UTILITY WORK shall be limited to costs covered by a modification, change order or extra work order approved as follows:

A. Should it be determined that any change from the contract plans and specifications for the UTILITY WORK is required, the COUNTY, through the Director of Engineering Services, shall have authority to make such changes up to the amount of $10,000 per incident, up to the "Contingency" amount shown in Exhibit B as may be adjusted in accordance with the accepted bid price.

B. Any change in the UTILITY WORK that would result in an increased cost to the CITY in excess of $10,000 per incident, or that would result in a total of cumulative incidents that is greater than the "Contingency" amount in Exhibit B, will require a binding Letter of Agreement, signed by both the COUNTY Public Works Director or his/her designee and the CITY Public Works Director or his/her designee, describing the changed scope of work and the estimated change in the UTILITY WORK cost.

C. In the event of a claim by the Contractor, each party shall be responsible for its proportionate share based on its proportionate responsibility for the claim.

X. INSURANCE

A. The CITY is insured by an insurance pool (the WCIA). A certificate of insurance has been provided to the COUNTY satisfying the following requirements, which shall be maintained during the term of this Agreement. The COUNTY is self-insured and has provided the CITY a letter confirming that the COUNTY's self-insurance program meets or exceeds the following requirements and that said self-insurance program shall be maintained during the term of this Agreement.

B. The CITY and the COUNTY shall each obtain and maintain continuously, at its own expense, for the term of this Agreement, liability insurance appropriate to the activity and/or other insurance necessary to protect the public within limits of liability. Commercial General Liability insurance with an additional insured endorsement shall meet the following:

(1) Minimum limit of coverage shall be $1,000,000 combined single limit/bodily injury and property damage and shall be written on an occurrence basis. Claims-Made Commercial General Liability insurance will not be accepted.

(2) Endorsement shall name Snohomish County, its officers, elected officials, agents, and employees as an additional insured and shall not be reduced or canceled without thirty (30) days prior written notice to the COUNTY.

C. The CITY and the COUNTY shall each provide or purchase Workers' Compensation Insurance coverage to meet the Washington State Industrial Insurance regulations and cause any subcontractors working on behalf of the CITY to also carry such insurance prior to performing work under this Agreement. The COUNTY will not be responsible for payment of Workers' Compensation premiums or for any other claim or benefit for the CITY, its employees, consultants, or subcontractors, which might arise under the Washington State Industrial Insurance laws.

XI. PROJECT RECORDS

During the progress of the PROJECT and for a period not less than six (6) years from the final payment to the COUNTY, the COUNTY shall keep all records and accounting pertaining to the PROJECT available for inspection and audit by the State and copies of all records, accounts, documents or other data pertaining to the PROJECT shall be furnished upon request. If any litigation, claim, or audit is commenced, the records and accounts along with supporting documentation shall be retained by the COUNTY until all litigation, claim or audit finding has been resolved even though such litigation, claim, or audit may continue past the six-year retention period.

XII. DISPUTE RESOLUTION

A. In the event the COUNTY and the CITY disagree over whether the Contractor has fulfilled its obligations under the construction contract, the COUNTY reserves the right to make the final decision as to the acceptability of the work. If a dispute arises between the CITY and the COUNTY, the parties agree that they will attempt to resolve the issue through mutual negotiation. In the event that the parties are not able to reach an agreement through such negotiation, the parties agree to engage in mediation in order to resolve the dispute. Mediation may be requested by either party, and shall be attempted prior to the institution of

any lawsuit arising under this Agreement. Mediation shall be conducted under the then-current Commercial Mediation Rules of the American Arbitration Association or, if such model procedure no longer exists, some other mutually acceptable procedure. The COUNTY shall select a neutral third party mediator, who shall be subject to the reasonable approval of the CITY. The parties agree to share the costs of mediation equally.

B. This Agreement has been made pursuant to, and shall be construed according to, the laws of the State of Washington. In the event that mediation is unsuccessful and either party finds it necessary to institute legal proceedings to enforce any provision of this Agreement, such proceedings may only be brought in the Superior Court of Snohomish County, Washington.

XIII. PROPERTY

Any real or personal property acquired or used by either party in connection with this Agreement will be acquired, held, and disposed of by that party in its discretion, and the other party will have no joint or other interest therein. Upon termination of this Agreement, real and personal property acquired through this Agreement shall be retained or disposed of in the manner provided by law.

XIV. CHANGES AND MODIFICATIONS

Either party may request changes, amendments, or additions to any portion of this Agreement; however, except as otherwise provided in this Agreement, no such change, amendment, or addition to any portion of this Agreement shall be valid or binding upon either party unless it is in writing and executed by both parties. All such changes shall be made part of this Agreement and recorded with the County Auditor.

XV. NOTICES

Unless otherwise directed in writing, notices, reports and payments shall be delivered to each party as follows:

SNOHOMISH COUNTY
Department of Public Works
Attn: Sai Nguyen, P.E.
3000 Rockefeller Avenue
Everett, WA 98201

CITY OF MARYSVILLE
Public Works Department
Attn: Paul Federspiel
80 Columbia Avenue
Marysville, WA 98270

Notices mailed by either party shall be deemed effective on the date mailed. Either party may change its address for receipt of reports, notices, or payments by giving the other written notice of not less than five (5) days prior to the effective date.

For accounting purposes, the respective Federal Tax Identification Numbers are:

Snohomish County: 91-6001368

City of Marysville: 91-6001459

XVI. ENTIRE AGREEMENT

These provisions represent the entire and integrated agreement of the parties and may not be modified or amended except as provided herein. Any understanding, whether oral or written, which is not incorporated herein is expressly excluded.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, effective on the latest date shown below. The signatories below represent and warrant that they possess the authority to execute this Agreement and bind their respective entities.

SNOHOMISH COUNTY

By:_____
Aaron Reardon Date
County Executive

Approved as to insurance by
Risk Management:

By: Diane Wilder 10/4/06
Risk Manager: Date

Approved as to form only:

Joni H. Castagnaro 10/4/06
Deputy Prosecuting Attorney Date

CITY OF MARYSVILLE

By:_____
Title: Date

COPY

Approved as to form only:

_____
City Attorney Date

EXHIBIT A

CITY OF MARYSVILLE
UTILITY WORK ASSOCIATED WITH
THE 51ST AVENUE NE / 122ND PLACE NE INTERSECTION PROJECT

Utility Work Description

The COUNTY's PROJECT provides for the design, right-of-way appraisal and acquisition, construction and inspection of road improvements on 51st Avenue NE between 121st Street NE and 123rd Street NE.

The UTILITY WORK to be included in the PROJECT, at the request of the CITY, concerns modification of water and sewer lines in the PROJECT area, specifically:

- Design and construction of a new temporary and permanent sanitary sewer force main, to be compatible with the new bridge structure and road section of 51st Avenue NE.
- Design and construction of repairs to and replacement of a section of the existing 8-inch sanitary sewer line at the new bridge structure on 51st Avenue NE.
- Design and construction of water system improvements beneath 51st Avenue NE, from 121st Street NE to 122nd Place NE, and replacement of approximately 430 feet of water main beneath 122nd Place NE, westward from 51st Avenue NE.

The estimated cost of the UTILITY WORK, based on the design, is shown in Exhibit B. The CITY will be responsible for any additional work on its water or sewer systems, as it deems necessary, to accomplish the UTILITY WORK.

EXHIBIT B

CITY OF MARYSVILLE
UTILITY WORK ASSOCIATED WITH
THE 51ST AVENUE NE / 122ND PLACE NE INTERSECTION PROJECT

Preliminary Cost Estimate

Preliminary Engineering		$40,147
Perteet Engineering, Inc.	$36,497	
Snohomish County	$3,650	
Utility Work Bid Items		$241,190
Contingency (10% of Bid Items)		$24,119
Sales Tax (7.6% of Bid Items)		$18,330
Subtotal		**$323,786**
Construction Engineering (Est. 15% of Bid Items and Contingency)	$39,800	
Administrative Fee (Est. 15% of Construction Engineering – labor only)	$5,970	
Subtotal		**$45,770**
Total Estimated Utility Work Related Costs		**$369,556**

Note: This preliminary estimate will be adjusted to conform to the successful bidder's proposal. County expenditures billed to the City will be actual expenditures.

Snohomish County
Finance Department
Risk Management Division
3000 Rockefeller M/S 610
Everett, WA 98201
425-388-3726
Fax 425-388-3499

October 5, 2006

RE: Confirmation of County Insurance Coverage

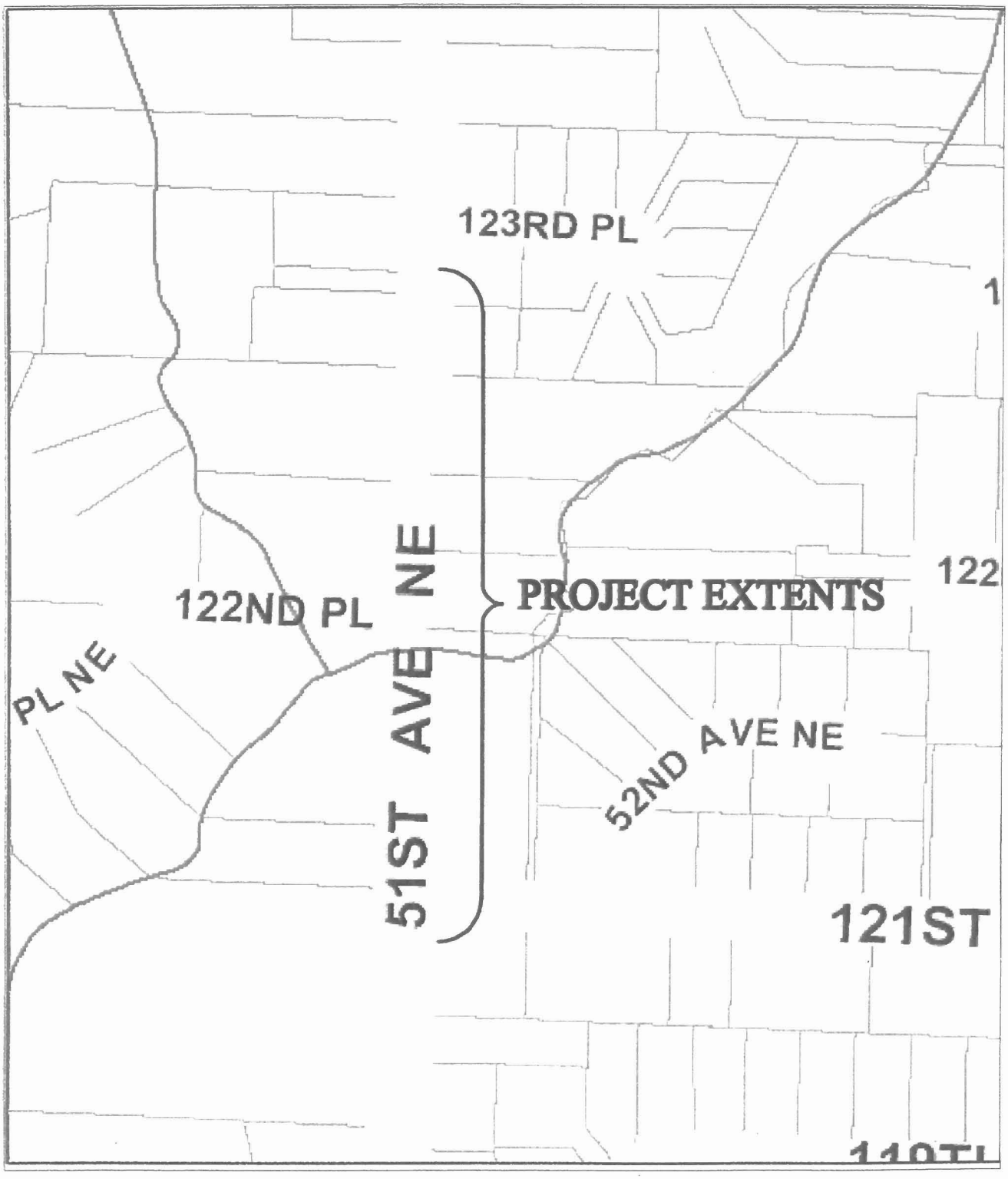
To Whom It May Concern:

Snohomish County self-insures its common law and assumed liability for bodily injury and/or property damage to third parties in connection with accidents arising out of Snohomish County's operations. The limits of coverage of the County's self-insurance program meet or exceed the limits required in the Interlocal Agreement between Snohomish County and the City of Marysville for Utility Relocation and Construction Associated with the 51st Avenue NE/122nd Place NE Intersection Project. The County's excess liability insurance covers all operations in addition to the self-insurance program. The County will maintain its self-insurance program during the term of said Interlocal Agreement.

If you have any questions please contact me at the number listed above.

Sincerely,

Diane Weber,
Loss Control Manager



Snohomish County 51st Ave / 122nd Pl. Intersection Improvement Project

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Professional Services Agreement with HDR Engineering for the Updating of our Water Comprehensive Plan	AGENDA SECTION: New Business
PREPARED BY: David Zull, P.E., Project Manager	AGENDA NUMBER: 3
ATTACHMENTS: Professional Services Agreement	APPROVED BY: MAYOR DRL / CAO MS
BUDGET CODE: 40143410.541000 W0704	AMOUNT: $250,000.00

This Professional Services Agreement will provide the City with an updated Water Comprehensive Plan. The recommended consultant for this work is HDR Engineering. After reviewing several Consultants' qualifications, the selection committee ultimately determined that HDR Engineering was best-suited for this project.

It is staff's opinion that the negotiated fee of $250,000.00 is fair and consistent with industry standard for the type of work at hand. Furthermore, HDR has a proven track record with the City and they perform excellent work. In light of these facts staff is confident that the City would be well-served by HDR working on this project.

RECOMMENDED ACTION: Staff recommends that the Council authorize the Mayor to sign Professional Services Agreement in the amount of $250,000.00 with HDR Engineering.
COUNCIL ACTION:

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PROFESSIONAL SERVICES AGREEMENT BETWEEN CITY OF MARYSVILLE AND HDR ENGINEERING, INC. FOR ENGINEERING SERVICES

THIS AGREEMENT, made and entered into in Snohomish County, Washington, by and between **CITY OF MARYSVILLE**, hereinafter called "City," and **HDR ENGINEERING**, a Washington corporation, hereinafter called the "Consultant."

WHEREAS, the Consultant has represented, and by entering into this Agreement now represents, that the firm and all employees assigned to work on any City project are in full compliance with the statutes of the State of Washington governing activities to be performed and that all personnel to be assigned to the work required under this agreement are fully qualified and properly licensed to perform the work to which they will be assigned.

NOW, THEREFORE, in consideration of the terms, conditions, covenants and performances contained hereinbelow, the parties hereto agree as follows:

ARTICLE I. PURPOSE

The purpose of this agreement is to provide the City with engineering services to provide the City with an updated Water Comprehensive Plan as described in Article II. The general terms and conditions of relationships between the City and the Consultant are specified in this agreement.

ARTICLE II. SCOPE OF WORK

The scope of work is set out in the attached "Scope of Services," **Exhibit A**. All services and materials necessary to accomplish the tasks outlined in **Exhibit A** shall be provided by the Consultant unless noted otherwise in this agreement.

ARTICLE III. OBLIGATIONS OF THE CONSULTANT

III.1 **MINOR CHANGES IN SCOPE.** The Consultant shall accept minor changes, amendments, or revision in the detail of the work as may be required by the City when such changes will not have any impact on the service costs or proposed delivery schedule. Extra work, if any, involving substantial changes and/or changes in cost or schedules will be addressed as follows:

Extra Work. The City may desire to have the Consultant perform work or render services in connection with each project in addition to or other than work provided for by the expressed intent of the scope of work in the scope of services. Such work will be considered as extra work and will be specified in a written supplement to the scope of services, to be signed by both parties, which will set forth the nature and the scope thereof. All proposals for extra work or services shall be prepared by the Consultant at no cost to the City. Work under a supplemental agreement shall not proceed until executed in writing by the parties.

III.2 **WORK PRODUCT AND DOCUMENTS.** The work product and all documents listed in the scope of services shall be furnished by the Consultant to the City, and upon completion of the work shall become the property of the City, except that the Consultant may retain one copy of the work product and documents for its records. The Consultant will be responsible for the accuracy of the work, even though the work has been accepted by the City.

In the event that the Consultant shall default on this agreement or in the event that this contract shall be terminated prior to its completion as herein provided, all work product of the Consultant, along with a summary of work done to date of default or termination, shall become the property of the City. Upon request, the Consultant shall tender the work product and summary to the City. Tender of said work product shall be a prerequisite to final payment under this contract. The summary of work done shall be prepared at no additional cost to the City.

Consultant will not be held liable for reuse of these documents or modifications thereof for any purpose other than those authorized under this Agreement without the written authorization of Consultant.

III.3 **TIME OF PERFORMANCE.** The Consultant shall be authorized to begin work under the terms of this agreement upon signing of both the scope of services and this agreement and shall be completed by **March 1, 2009**, unless a mutual written agreement is signed to change the schedule. An extension of the time for completion may be given by the City due to conditions not expected or anticipated at the time of execution of this

agreement.

III.4 **NONASSIGNABLE**. The services to be provided by the Consultant shall not be assigned or subcontracted without the express written consent of the City.

III.5 **EMPLOYMENT**. Any and all employees of the Consultant, while engaged in the performance of any work or services required by the Consultant under this agreement, shall be considered employees of the Consultant only and not of the City, and any and all claims that may or might arise under the Workman's Compensation Act on behalf of any said employees while so engaged, and any and all claims made by any third party as a consequence of any negligent act or omission on the part of the Consultant or its employees while so engaged in any of the work or services provided herein shall be the sole obligation of the Consultant.

III.6 **INDEMNITY.**

a. The Engineer will at all times indemnify and hold harmless and defend the City, its elected officials, officers, employees, agents and representatives, from and against any and all lawsuits, damages, costs, charges, expenses, judgments and liabilities, including attorney's fees (including attorney's fees in establishing indemnification), collectively referred to herein as "losses" resulting from, arising out of, or related to one or more claims arising out of negligent acts, errors, or omissions of the Engineer in performance of Engineer's professional services under this agreement. The term "claims" as used herein shall mean all claims, lawsuits, causes of action, and other legal actions and proceedings of whatsoever nature, involving bodily or personal injury or death of any person or damage to any property including, but not limited to, persons employed by the City, the Engineer or other person and all property owned or claimed by the City, the Engineer, or affiliate of the Engineer, or any other person.

b. Should a court of competent jurisdiction determine that this agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Engineer and the City, its members, officers, employees and agents, the Engineer's liability to the City, by way of indemnification, shall be only to the extent of the Engineer's negligence.

c. The provisions of this section shall survive the expiration or termination of this agreement.

III.7 **INSURANCE.**

a. **Minimum Limits of Insurance.** The Consultant shall, before commencing work under this agreement, file with the City certificates of insurance coverage to be kept in force continuously during this agreement, and during all work performed pursuant to all short form agreements, in a form acceptable to the City. Said certificates shall name the City as an additional named insured with respect to all coverages except professional liability insurance. The minimum insurance requirements shall be as follows:

(1) Comprehensive General Liability. $1,000,000 combined single limit per occurrence for bodily injury personal injury and property damage; damage, $2,000,000 general aggregate;

(2) Automobile Liability. $300,000 combined single limit per accident for bodily injury and property damage;

(3) Workers' Compensation. Workers' compensation limits as required by the Workers' Compensation Act of Washington;

(4) Consultant's Errors and Omissions Liability. $1,000,000 per occurrence and as an annual aggregate.

b. **Endorsement.** Each insurance policy shall be endorsed to state that coverage shall not be suspended, voiced, canceled, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.

c. **Acceptability of Insurers.** Insurance to be provided by Consultant shall be with a Bests rating of no less than A:VII, or if not rated by Bests, with minimum surpluses the equivalent of Bests' VII rating.

d. **Verification of Coverage.** In signing this agreement, the Consultant is acknowledging and representing that required insurance is active and current.

III.8 **DISCRIMINATION PROHIBITED AND COMPLIANCE WITH EQUAL OPPORTUNITY LEGISLATION.** The Consultant agrees to comply with equal opportunity employment and not to discriminate against client, employee, or applicant for employment or for services because of race, creed, color, religion, national origin, marital status, sex, age or handicap except for a bona fide occupational qualification with regard, but not limited to, the following: employment upgrading; demotion or transfer; recruitment or any

recruitment advertising; layoff or terminations; rates of pay or other forms of compensation; selection for training, rendition of services. The Consultant further agrees to maintain (as appropriate) notices, posted in conspicuous places, setting forth the provisions of this nondiscrimination clause. The Consultant understands and agrees that if it violates this nondiscrimination provision, this agreement may be terminated by the City, and further that the Consultant will be barred from performing any services for the City now or in the future, unless a showing is made satisfactory to the City that discriminatory practices have been terminated and that recurrence of such action is unlikely.

III.9 **UNFAIR EMPLOYMENT PRACTICES.** During the performance of this agreement, the Consultant agrees to comply with RCW 49.60.180, prohibiting unfair employment practices.

III.10 **AFFIRMATIVE ACTION.** Affirmative action shall be implemented by the Consultant to ensure that applicants for employment and all employees are treated without regard to race, creed, color, sex, age, marital status, national origin or the presence of any sensory, mental or physical handicap, unless based on a bona fide occupational qualification. The Consultant agrees to take affirmative action to ensure that all of its employees and agent adhere to this provision.

III.11 **LEGAL RELATIONS.** The Consultant shall comply with all federal, state and local laws and ordinances applicable to work to be done under this agreement. This contract shall be interpreted and construed in accordance with the laws of Washington. Venue for any action commenced relating to the interpretation, breach or enforcement of this agreement shall be in Snohomish County Superior Court.

III.12 **INDEPENDENT CONTRACTOR.** The Consultant's relation to the City shall at all times be as an independent contractor.

III.13 **CONFLICTS OF INTEREST.** While this is a non-exclusive agreement the Consultant agrees to and will notify the City of any potential conflicts of interest in Consultant's client base and will seek and obtain written permission from the City prior to providing services to third parties where a conflict of interest is apparent. If a conflict is irreconcilable, the City reserves the right to terminate this agreement.

III.14 **CITY CONFIDENCES.** The Consultant agrees to and will keep in strict confidence, and will not disclose, communicate or advertise to third parties without specific prior written consent from the City in each instance, the confidences of the City or any information regarding the City or services provided to the City.

ARTICLE IV. OBLIGATIONS OF THE CITY

IV.1 **PAYMENTS**. The Consultant shall be paid by the City for completed work for services rendered under this agreement and as detailed in the scope of services as provided hereinafter. Such payment shall be full compensation for work performed or services rendered and for all labor, materials, supplies, equipment and incidentals necessary to complete the work. Payment shall be on a time and expense basis, provided, however, in no event shall total payment under this agreement exceed **$250,000.00**. In the event the City elects to expand the scope of services from that set forth in **Exhibit A**, the City shall pay Consultant an additional amount based on a time and expense basis, based upon Consultant's current schedule of hourly rates.

a. Invoices shall be submitted by the Consultant to the City for payment pursuant to the terms of the scope of services. The invoice will state the time expended, the hourly rate, a detailed description of the work performed, and the expenses incurred during the preceding month. Invoices must be submitted by the 20th day of the month to be paid by the 15th day of the next calendar month.

b. The City will pay timely submitted and approved invoices received before the 20th of each month within thirty (30) days of receipt.

IV.2 **CITY APPROVAL**. Notwithstanding the Consultant's status as an independent contractor, results of the work performed pursuant to this contract must meet the approval of the City, which shall not be unreasonably withheld if work has been completed in compliance with the scope of work and City requirements.

ARTICLE V. GENERAL

V.1 **NOTICES**. Notices to the City shall be sent to the following address:

CITY OF MARYSVILLE
C/O David L Zull
80 Columbia Avenue
MARYSVILLE, WA 98270

Notices to the Consultant shall be sent to the following address:

Melinda J. Friedman
HDR Engineering
500 108th Ave. NE, Suite 1200
Bellevue, WA 98004-5549

Receipt of any notice shall be deemed effective three (3)

days after deposit of written notice in the U.S. mail with proper postage and address.

V.2 **TERMINATION.** The right is reserved by the City to terminate this agreement in whole or in part at any time upon ten (10) days' written notice to the Consultant.

If this agreement is terminated in its entirety by the City for its convenience, a final payment shall be made to the Consultant which, when added to any payments previously made, shall total the actual costs plus the same percentage of the fixed fee as the work completed at the time of termination applied to the total work required for the project.

V.3 **DISPUTES.** The parties agree that, following reasonable attempts at negotiation and compromise, any unresolved dispute arising under this contract may be resolved by a mutually agreed-upon alternative dispute resolution of arbitration or mediation.

V.4 **NONWAIVER.** Waiver by the City of any provision of this agreement or any time limitation provided for in this agreement shall not constitute a waiver of any other provision.

DATED this _____ day of _____, 2007.

CITY OF MARYSVILLE

By_____
Mayor

HDR ENGINEERING, INC.

By David A. Hart
Its: Sr. Vice President

Approved as to form:

_____
GRANT K. WEED, City Attorney

HDR

City of Marysville
Water Comprehensive Plan

Exhibit A
Scope of Services

April 17, 2007

HDR
500 108th Avenue NE
Suite 1200
Bellevue, WA 98004-5549
(425) 450-6200

Table of Contents

1.0 Task 1 – Project Management

1.1 Objective

Manage scope, schedule and budget for the Water Comprehensive Plan (WCP) project. Work with City project manager to coordinate joint City/HDR team to complete project services.

1.2 HDR Services

1. Organize and manage consultant project team and coordinate with City project manager to manage joint project team.
2. Prepare and maintain updates to a project guide, including a Table of Contents for the WCP.
3. Prepare initial project scope, schedule and budget and update as the project is completed.
4. Conduct pre-planning meeting with DOH and project kick-off meeting with City.
5. Prepare monthly team meeting agenda, notes, and action items.
6. Conduct monthly internal team meetings.
7. Conduct monthly conference calls with City Project Manager.
8. Prepare brief monthly progress reports including the following:
    - Communications/Meetings Summary
    - Work Completed During the Month
    - Work Scheduled Next Month
    - Needs for Additional Information/Reviews
    - Scope/Schedule/Budget Issues/Changes
    - Schedule Update
    - Summary Budget Update
9. Prepare standard HDR format invoice and submit monthly.

1.3 City Responsibilities

1. Approve Table of Contents for WCP.
2. Review monthly reports and requests for information.
3. Provide prompt review and processing of monthly invoices.
4. Host and help schedule kick-off meetings with DOH and project team.

1.4 Assumptions

1. Project duration will be from June 2007 through March 1, 2009.
2. Monthly progress/team coordination meetings will occur at either the City's offices in Marysville or via telephone.

1.5 Deliverables

1. Two copies of a project guide – including updated scope, schedule, and budget and contact information/communications plan.
2. Project guide updates – as needed.
3. Monthly coordination meeting agenda, notes, and action items.
4. DOH and project team kickoff meeting agenda, meeting notes and action items.
5. Monthly progress reports.
6. Monthly invoices.

2.0 Task 2 – Data Collection

2.1 Objective

Work with City staff to obtain information needed to complete the WCP.

2.2 HDR Services

1. Prepare a prioritized data request list for the City.
2. Meet with City Engineering and Operations staff to tour water system facilities and review system condition, operational issues and concerns.
3. Prepare a list of the WCP reference materials that will be provided by the City.

2.3 City Responsibilities

1. Provide copies of requested water system data according to prioritization within the timeframe and in the format requested.
2. Host a water system facilities tour for the project team with City Engineering and Operations staff.

2.4 Assumptions

1. The data collection meeting and facilities tour site visit will occur on the same day.

2. The City will provide the requested water system data within the requested time frame and in the appropriate format.

2.5 Deliverables

1. Data request list, updated as materials are provided.

3.0 Task 3 – Water System Description

3.1 Objective

Describe the characteristics of the City of Marysville water system.

3.2 HDR Services

1. Work with appropriate City staff to review and update each section of the Water System Description from the 2003 Water System Plan. The following water system components will be described:
    - Ownership and Management
    - Overview – Pressure Zones
    - Sources of Supply and Treatment Facilities
    - Transmission System
    - Pump Stations
    - Storage Facilities
    - Distribution System
    - System Interties

3.3 City Responsibilities

1. Work with the HDR team to review Water System Description chapter from 2003 Water System Plan and provide marked up version that reflects changes since 2003.
2. Provide GIS data on current service area and facility locations.
3. Review the draft updated chapter provided by HDR and provide written comments within two weeks.

3.4 Assumptions

1. The City will review the 2003 Water System Plan System Description chapter and work with the consultant team to provide necessary information for updating the chapter.
2. Detailed system description information judged to be important to system vulnerability will only be included in the working draft and will not be included in the final system description.

3.5 Deliverables

1. E-mailed Word document file of draft WCP Chapter 1 – Water System Description for City review and comment.
2. E-mailed document file of the final WCP Chapter 1 – Water System Description.

4.0 Task 4 – Service Area Policies, Plans, and Agreements

4.1 Objective

Update and describe City service area policies, plans and agreements consistent with DOH requirements to document this information.

4.2 HDR Services

1. Create up to four maps showing the following:
    - The City's retail service area for the current, 6 year, and 20 year time periods;

- Surrounding utility service areas;
- The City's municipal boundaries and potential annexation areas;
- Zoning and/or land use within the City's service area.

2. Summarize the water service related portions of the City's municipal code.
3. Describe the City's formal or informal supply, wheeling, and intertie agreements with neighboring utilities including the Joint Operating Agreement (JOA) and related interlocal agreements.
4. Summarize water utility and land use aspects of the following related plans: the 2006 City of Everett Comprehensive Water Plan, the 1991 North Snohomish County Coordinated Water System Plan (CWSP), the City's 2005 Comprehensive Plan, and the 2006 Snohomish County Comprehensive Plan. The focus of this summary will be to document whether the City's WCP is consistent with these plans.

4.3 City Responsibilities

1. Provide applicable data needed, per the data request associated with Task 2, including map data layers, agreements, policies and plans.
2. Review the draft WCP chapter, including maps, and provide written comments within two weeks.

4.4 Assumptions

1. All applicable data will be readily available; either from the City, Snohomish County, or other sources and the majority of the map data will be available in GIS format.

4.5 Deliverables

1. E-mailed Word document file of draft WCP Chapter 2 – Service Area Policies for City review and comment.
2. E-mailed document file of the final WCP Chapter 2 – Service Area Policies.

5.0 Task 5 – Demand Forecast

5.1 Objective

Prepare water demand forecast to serve as the basis for modeling and capital improvement needs.

5.2 HDR Services

1. Develop demographic projections for two time periods: 6 year and 20 year, based on the October 2006 data set from the Puget Sound Regional Council (PSRC). This will include using GIS analysis to match the PSRC data to the City's service area. This information will be developed for the City's service area, but not for areas for the JOA wheeled water.
2. Contact JOA partners and/or other water systems receiving water on a wholesale basis to determine their expected needs in the 6-year and 20-year time periods.
3. Summarize ten years of historical supply characteristics such as production and purchases, peaking factor, sales, customer categories, connections, and water balance including non-revenue water and leakage.

4. Based on the most recent three years of data, develop water use factors for forecasting purposes.
5. Develop demand forecasts using the demographic projections and water use factors for the 6 year and 20 year time periods. The forecasts will be developed for each pressure zone for the retail service area and by water system for the JOA wheeled water or other wholesale customers. The forecasts will include adjustments to reflect the conservation program from Task 6. The demand forecast will identify opportunities for using reclaimed water.
6. Prepare a Technical Memorandum for City review and comment with summary tables and graphs of the demographic projections, the historical supply characteristics, and the draft demand forecast to allow for any adjustments before this information is used in writing the WCP chapter. Note: this Technical Memorandum will be discussed in detail at the Planning Data Workshop (see Task 8).

5.3 City Responsibilities

1. Provide applicable data per the data request associated with Task 2.
2. Review the Technical Memorandum of summary tables and graphs of demographic projections, historical supply characteristics, and draft demand and provide written comments within two weeks of the Planning Data Workshop.
3. Review the draft WCP chapter and provide written comments within two weeks.

5.4 Assumptions

1. Source data will be demographic data from the Puget Sound Regional Council (PSRC). PSRC data includes population, single family households, multifamily households, and total employment numbers and is divided into small geographic areas called Traffic Analysis Zones (TAZs).
2. Source data, per the data request list associated with Task 2, will be readily available from the City and will be provided in spreadsheet format.

5.5 Deliverables

1. E-mailed Word document file of the Technical Memorandum with summary tables and graphs of the demographic projections, historical supply characteristics, and draft demand forecast. Only one version of this technical memorandum will be produced. Any comments will be incorporated into the associated WCP chapter.
2. E-mailed Word document file of draft WCP Chapter 3 – Planning Data and Demands.
3. E-mailed document file of the final WCP Chapter 3 – Planning Data and Demands.

6.0 Task 6 – Conservation Program

6.1 Objective

Document the City's current conservation program and develop program update to comply with DOH requirements.

6.2 HDR Services

1. Document conservation planning requirements, including the new Water Use Efficiency Rule related to the 2003 Municipal Water Law.
2. Document the City's current water conservation programs including the regional Everett Water Utilities Committee (EWUC) program that Everett administers on behalf of Marysville, as well as any Marysville-specific programs. This will include estimates of savings accomplished by the conservation program.
3. Assist City staff with determining an appropriate goal for the conservation program for the next six years. Per the Water Use Efficiency Rule, the conservation goal must be set using a public process by January 22, 2008. Assist the City in ensuring the goal development process meets the public process requirements.
4. Develop a methodology to document the conservation program for the next six years. Depending on the goal determined above, this may simply be Marysville's portion of the new regional EWUC conservation program that is part of Everett's draft 2006 WCP, or may include additional conservation measures. Analysis of additional measures, above the EWUC program, is not included in this Scope. The impacts of conservation on the demand forecast will be assessed.

6.3 City Responsibilities

1. Provide conservation program data per the data request list associated with Task 2.
2. Set up and lead the public meeting related to the conservation goal.
3. Review the draft WCP chapter and provide written comments within two weeks.

6.4 Assumptions

1. Marysville's conservation program for the next six years will rely heavily on the new regional EWUC conservation program that is part of Everett's draft 2006 Comprehensive Water Plan.

6.5 Deliverables

1. E-mailed Word document file of draft WCP Chapter 5 – Conservation Program for City review and comment.
2. E-mailed document file of the final WCP Chapter 5 – Conservation Program.

7.0 Task 7 – Water Rights, System Reliability, and Source Water Protection

7.1 Objective

Perform a water rights and system reliability analysis including inventory, comparison with future needs, and interties to meet DOH planning requirements including those under the 2003 Municipal Water Rights Legislation and provide an interpretive description. Table 3 and Table 4 of the DOH *Water System Planning Handbook* (April 1997) are required to be completed as an element of an updated WSP.

7.2 HDR Services

1. Perform a water right inventory and analysis to identify and summarize the status of the City's existing water rights with input from the City. Confirm or modify the summary after a review of City records and Ecology files pertaining to the basic documents of each water right file (permit, certificate, etc.). The depth of this analysis will be sufficient to complete the tabulated Existing Water Right Status required in the 1997 DOH *Water System Planning Handbook*.
2. Prepare future supply water rights analysis to determine the adequacy of the City's existing surface and groundwater water rights to meet the 6 and 20-year demand forecast developed for the WCP update. Service area considerations related to purpose and place of use and service limitations (if any) will be evaluated. The depth of this analysis will be sufficient to complete Table 3 and 4 of the 1997 *Water System Planning Handbook* (Forecasted Water Right Status) as required by DOH. Water rights will also be compared to buildout demand forecasts.
3. Document the status of any existing or proposed interties.
4. Update the source of supply and system reliability analyses to determine the adequacy of water quantity to meet future demands. Assuming the City is not planning to pursue water rights within 20 years, this update will cover applicable portions of the Water Comprehensive Plan covering Water Sources, Water Conservation Program, Interties, Water Reuse, and Facility Analysis. If the City is planning to pursue water rights within 20 years, this section will provide further detail on these issues.
5. Provide description of the City's current Contingency and Emergency Response Planning efforts.
6. Conduct an evaluation of Marysville's Watershed Control and Wellhead Protection Programs. This update will include a review of the following:
   - Conditions in the protected areas that are adversely affecting source water quality;
   - Changes in these areas that could adversely affect source water quality which have occurred since the last watershed and wellhead evaluations; and
   - Results of monitoring conducted by Marysville as part of their source water protection program.
7. Update the Watershed Control Plan for the Stillaguamish source and the Wellhead Protection Plans for the Edward Springs, Lake Goodwin Well, Sunnyside Well, and Highway 9 sources and work with City staff to determine additional controls needed within the watershed/wellhead areas to protect sources of supply.

7.3 City Responsibilities

1. Provide sufficient water system information regarding existing water rights and pending applications to enable completion of Tables 3 and 4 in the 1997 DOH *Water System Planning Handbook*.
2. Provide copies of water right certificates, permits and Reports of Examination from all of City's water right files, and copies of any pending applications.
3. Provide information for preparation of the System Reliability Analysis and evaluation of the City's Watershed Control/Wellhead Protection Programs.
4. Review draft WCP draft Chapter and provide written comments within two weeks.

5. Develop updated maps to reflect changes in Watershed Control/Wellhead Protection Programs.

7.4 Assumptions

1. The water rights information from the City's 2003 Water System Plan is considered to be accurate and will be used as a starting point for determining the status of the City's existing water rights and any pending applications.
2. The City is not planning to acquire additional water rights over the 20-year planning horizon captured in this WCP update.
3. The City will provide copies of any updated water rights information with any changes/additions from the 2003 Water System Plan.
4. Discussions will take place as necessary with City staff and Ecology to verify the City's existing water rights and any updates from the 2003 Water System Plan.
5. One meeting will be required with City staff and/or Ecology staff to verify accuracy of City's existing water rights, particularly related to any supplemental water rights that the City may have.
6. System watershed and reliability information judged to be important to system vulnerability will only be included in the working draft and will not be included in the final system description.
7. Marysville has existing watershed control programs for the GUI sources of supply.
8. Existing protection plans need to be updated and existing information and format is acceptable.
9. There are no known new or emerging problems with the raw water supplies. Water quality conditions have been relatively stable compared with conditions addressed in the 2003 Water System Plan.

7.5 Deliverables

1. E-mailed document files of draft and final Technical Memoranda for water rights, system reliability, and watershed control programs. These memoranda will be formatted to be directly compiled into WCP Chapter.
2. E-mailed Word document file of draft WCP Chapter for Water Rights and System Reliability for City review and comment.
3. E-mailed document file of the final WCP Chapter for Water Rights and System Reliability.

8.0 Task 8 – Planning Data Workshop

8.1 Objective

Obtain feedback on the demographic forecast, demand forecast, and supply characteristics from City of Marysville staff, and potentially other parties, prior to using this information for the system analysis. Support the subsequent consistency determination process to be requested from Snohomish County or other jurisdictions served outside of City limits.

8.2 HDR Services

1. Prepare materials for workshop, consisting of pertinent tables and graphics from appropriate chapters of draft Plan.

2. Lead a workshop to discuss the content of the Task 5 Demand Forecast Technical Memorandum and the relationship of the Water Comprehensive Plan to local land-use plans.

8.3 City Responsibilities

1. Organize and host a workshop at the City offices to support this task.
2. Determine if non-City staff attendees are desirable, such as the JOA partners, the City of Everett, Snohomish County, and DOH.

8.4 Assumptions

1. The planning data workshop will be held at the City offices.

8.5 Deliverables

1. Materials for the workshop.
2. Convening of the workshop.
3. Notes documenting workshop outcomes with respect to the Water Comprehensive Plan.

9.0 Task 9 - System Analysis

9.1 Objective

To produce a hydraulic model of the Marysville distribution system that can be used for planning, fire flow analysis, and sizing of CIP for steady state simulations. Hydrant tests will be used to collect pressure data to help calibrate the hydraulic model.

9.2 HDR Services

1. Hydraulic Analysis

- Begin task with most up-to-date hydraulic model developed by City of Marysville in Bentley's WaterCAD software.
- Receive model from City, and run on HDR software to confirm model is operable.
- Coordinate with City Operations and Engineering departments to learn how system operates (i.e. pump operation rationale, areas of low pressures, reservoir operation philosophy, etc.).
- Discuss with City to determine if any model components need to be updated and assess what level of calibration is required.

Model Calibration

Collect Data

- Assess current calibration and identify calibration needs.
- Provide direction for City staff to conduct field data collection including:
    - Instantaneous Fire Flows (dechlorinate prior to discharging water); and
    - Recording pressure gauges.
- Work with City to select sites for fire flow tests.

- Obtain existing pipe material and age information and incorporate data from City flushing program into C-factor calculation, if available.
- Work with City staff to determine what information is available for development of a diurnal curve and if sufficient information is available, develop the diurnal curve from well production data, flow into Marysville from the Everett transmission line, and reservoir level data as supplied by the City.
- Perform steady state, planning level calibration in accordance with *Calibration Guidelines for Water Distribution System Modeling* prepared by the Engineering Computer Applications Committee of the AWWA.

Development of Model Demands

- Review available meter/billing information.
- Allocate existing system demand using meter information.
- Develop demand forecasts by pressure zone.
- Allocate future demands by meters and/or land use.
- Discuss large users with City staff to determine which customers will be included in the model.

Modeling Scenarios

- The following base simulations will be run in the same order as listed:

Description	Facilities	Demand	Purpose
Existing Fire Flow	Existing	Maximum Day plus fire flow	Evaluate and develop CIP for existing fire flow conditions
Existing Peak Hour	Existing	Maximum Day, Peak Hour	Evaluate and develop CIP for existing peak hour conditions
20-year Fire Flow	20-year CIP	Maximum Day plus fire flow	Evaluate and develop CIP for fire flow conditions for 20 yr planning horizon
20-year Peak Hour	20-year CIP	Maximum Day, Peak Hour	Evaluate and develop CIP for peak hour conditions for 20 yr planning horizon
6-year CIP Fire Flow	6-year CIP	Maximum Day plus fire flow	Identify portions of 20 yr CIP needed to meet 6 yr fire flow conditions
6-year CIP Peak Hour	6-year CIP	Maximum Day, Peak Hour	Identify portions of 20 yr CIP needed to meet 6 yr peak hour conditions

- Develop list of Capital Improvement Program projects for inclusion in the final CIP. Scheduling of CIP projects will take into account the City's street overlay and other improvement programs.
- Develop maps that show the locations of the CIP projects included in the final CIP list.

2. System Physical Capacity Analysis

Source Capacity Analysis

- Evaluate the existing source capacity and compare it to the projected demands.
- Provide analysis for each pressure zone in the distribution system.
- Identify potential solutions to any deficiencies in source.
- Determine the maximum number of ERUs that can be supplied by the existing source.
- Develop listing of Capital Improvements (as required).

Storage Capacity Analysis

- Evaluate components of existing storage capacity and compare it to the required storage based on projected demands including:
    - Operational Storage;
    - Equalizing Storage;
    - Fire Flow Storage/Standby Storage (use greater of either if approved by local fire authority); and
    - Dead Storage.
- Provide analysis for each pressure zone in the distribution system.
- Identify potential solutions to any deficiencies in storage.
- Determine the maximum number of ERUs that can be supplied by the existing storage.
- Develop listing of Capital Improvements (as required).

9.3 City Responsibilities

1. Provide most up-to-date model in Bentley's WaterCAD software.
2. Provide applicable data per the data request list associated with Task 2.
3. Provide staff knowledgeable in the operation of the water system for discussions with HDR personnel.
4. Identify locations within existing system where pressure or flow problems exist.
5. Work with consultant to determine appropriate locations for fire flow tests.
6. Provide labor to conduct fire flow tests and provide traffic control for fire flow tests.
7. Provide data from C-factor analysis collected during flushing program, if available.
8. Deliver information needed for initial C-factor determination (pipe material and age).
9. Provide meter/billing data and any water use information for large customers to develop system demands. Assist in the verification of the allocation of demands.
10. Provide well production, flows from transmission line, reservoir levels and other applicable data on a maximum 15 minute interval for diurnal curve calculations, if available.
11. Work with local fire authority to authorize nesting of fire flow and standby storage.
12. Review the draft WCP chapter and provide written comments within two weeks.

13. Assist in the development of projects for the Capital Improvement Program and production of maps showing CIP projects.

9.4 Assumptions

1. Most up-to-date model will be provided in Bentley's WaterCAD software.
2. Model provided by City contains all necessary pipes, pumps, and reservoirs.
3. No water quality calibration is included in this scope of work.
4. Detailed system analysis information or maps judged to be important to system vulnerability will only be included in the working draft and will not be included in the final system description.

9.5 Deliverables

1. Marysville specific diurnal curve for use in the model (if sufficient data is available to produce a system-specific diurnal curve.
2. Technical Memorandum describing updates/changes made to Marysville's hydraulic model.
3. Technical Memorandum describing data collected during field studies.
4. Calibrated hydraulic model(s) capable of simulating Marysville's water distribution systems in steady state mode.
5. E-mailed Word document file of draft WCP Chapter for System Analysis for City review and comment.
6. E-mailed document file of the final WCP Chapter for System Analysis.
7. Capital Improvement Program project listing and map(s), as determined from hydraulic analyses.

10.0 Task 10 – Water Quality Compliance Program

10.1 Objective

Work with City staff to develop a plan for existing and continued compliance with State and Federal Safe Drinking Water Act requirements.

10.2 HDR Services

1. Describe Safe Drinking Water Act and Washington State Administrative Code drinking water regulations applicable to the City for:
   - Existing Regulations
   - Proposed Regulations
   - Anticipated Regulations
2. Review the City's water quality compliance data from 2002-2007.
3. Review the City's existing regulatory compliance monitoring plans and recommend modifications.
4. Document compliance status.
5. Prepare recommendations regarding existing monitoring plans and/or treatment practices based on existing or proposed Safe Drinking Water Act regulations.

6. Prepare comprehensive Water Quality Regulatory Compliance Plan.
7. Review and document the City's procedures for handling customer inquiries/complaints.
8. Document use of certified laboratories.
9. Prepare comprehensive Monitoring Plan that coordinates source water and distribution system monitoring schedules for all Safe Drinking Water Act regulations.

10.3 City Responsibilities

1. Provide existing water quality monitoring plans and requested regulatory compliance data from 2002-2007 for review.
2. Attend one meeting to review existing data.
3. Assist with development of comprehensive Regulatory Compliance Plan.
4. Assist with development of comprehensive Monitoring Plan.
5. Review the draft WCP chapter and provide written comments within two weeks.

10.4 Assumptions

1. Existing monitoring plans will be reviewed. Modifications to Plans will be scoped separately, once the degree of needed modifications is known.
2. One meeting will be attended to complete this section of the WCP.

10.5 Deliverables

1. E-mailed Word document file of draft WCP Chapter for Water Quality Compliance Program for City review and comment.
2. E-mailed document file of the final WCP Chapter for Water Quality Compliance Program.
3. Comprehensive Monitoring Plan.

11.0 Task 11 – Operations and Maintenance

11.1 Objective

The objective will be to describe the Operation and Maintenance (O&M) Program to fulfill the requirements of the DOH.

11.2 HDR Services

1. Meet with City staff to review 2003 Water System Plan and update the following sections:
   - Organization Structure and Responsibility
   - Operator Certification
   - System Operation, Maintenance and Control
   - Emergency Response Operations (as defined in the City's Emergency Response Plan)
   - Safety
   - Cross Connection Control
   - Supplies and Equipment

- Record Keeping and Reporting
- O&M Improvements

2. Identify recommended changes to current operations and maintenance program that will require funding through the CIP.

11.3 City Responsibilities

1. Review 2003 Water System Plan and provide mark-ups.
2. Provide a copy of the City's existing Emergency Response Plan.
3. Provide example copies of operation and maintenance reports, logs, or worksheets for inclusion into the O&M Program.
4. Provide a copy of the new Water Treatment Plant O&M Manual to reference treatment capacities in the System Operation section of this Chapter.
5. Meet with consultant to review updates.
6. Review the draft WCP chapter and provide written comments within two weeks.

11.4 Assumptions

1. A separate eO&M manual will be developed under a supplemental scope of work and using additional fees.
2. The O&M Program update will include information on the new Water Treatment Plant obtained from the City's Treatment Plant O&M Manual.
3. Detailed system operations and maintenance information judged to be important to system vulnerability will only be included in the working draft and will not be included in the final Chapter for Operations and Maintenance.

11.5 Deliverables

1. E-mailed Word document file of draft WCP Chapter for Operations and Maintenance for City review and comment.
2. E-mailed document file of the final WCP Chapter for Operations and Maintenance.
3. List of O&M improvements to be included in the CIP.

12.0 Task 12 – Design and Construction Standards and Specifications Update

12.1 Objective

Document and summarize the City's water system Design and Construction Standards that are used for planning, design, and operation of the water system.

12.2 HDR Services

1. Review and document in-house review procedures for new water projects.
2. Identify specific design and construction standards requirements for outside parties.
3. Review and comment on existing City Design Standards:

- Use existing Design Standards as a starting point to suggest revisions and/or updated standards; and
- Research other utilities design standards to determine if any standards are missing from the Marysville list.

4. Construction Standards and Specifications
   - Use existing Construction Standards and Specifications as a starting point to suggest revisions and/or updated Construction Standards and Specifications; and
   - Research other utilities construction standards to determine if any standards are missing from the Marysville list.

12.3 City Responsibilities

1. Provide a copy of the City's existing Design and Construction Standards.
2. Review draft set of Standards as produced by HDR and provide written comments within two weeks.

12.4 Assumptions

1. HDR will only provide recommended updates and revisions to existing standards and suggestions for new standards, if needed.
2. No new standards or specifications will be developed.

12.5 Deliverables

1. E-mailed Word document file of draft WCP Chapter for Design and Construction Standards for City review and comment.
2. E-mailed document file of the final WCP Chapter for Design and Construction Standards.

13.0 Task 13 – Capital Improvement Program

13.1 Objective

Prepare a Capital Improvement Program database that provides a project description, schedule, costs, prioritization, and justification.

13.2 HDR Services

1. Work with the City during a workshop to discuss and develop project evaluation, screening and prioritization criteria to be used in the selection of and prioritization of projects. The contents of the CIP table and project sheets will also be reviewed and refined at this workshop.
2. Describe the CIP prioritization process, project justification and description.
3. As other project information is made available by the City, water CIP projects will be scheduled to coordinate with other City sewer and street improvement projects in the same areas to minimize overall infrastructure improvement costs.
4. Describe selection and justification methodology for proposed capital and non-capital improvement projects.

5. Work with the City to prepare a standard cost estimating methodology that will be used to compare and evaluate project alternatives.
6. Prepare a CIP database system that can be used to describe and sort projects by date, schedule, priority, or type. Each project in the database will be linked to a project sheet that describes the project and project justification.
7. Outline and summarize the schedule of Capital Improvement Program projects in a summary table by year for the first 6 years, and by year from the end of the 6 year planning horizon to the end of the 20 year planning horizon.

13.3 City Responsibilities

1. Provide input on existing and anticipated CIP projects for the City.
2. Organize and host a workshop at the City offices to support this task.
3. Work with HDR team to evaluate alternatives and select CIP projects.
4. Help to select project prioritization criteria.
5. Provide recent City water project bid tabulations to be used in developing the cost estimating tool.
6. Review the draft CIP list and WCP chapter and provide written comments within two weeks.

13.4 Assumptions

1. City will provide available similar project cost information to help set up cost models.
2. The workshop will be held at the City offices.

13.5 Deliverables

1. Draft and final CIP database and project cost estimating tool.
2. Emailed Word document file of draft WCP Chapter for the Capital Improvement Program for City review and comment.
3. Emailed document file of the final WCP Chapter for the Capital Improvement Program.

14.0 Task 14 – Financial Plan

14.1 Objective

HDR will develop the financial program for this Water Comprehensive Plan for the City of Marysville. The objective of the financial program, as defined in the 2003 *Water System Planning Handbook* published by the DOH, "is to identify the total cost of providing water service, assure that the utility improvement schedule will be implemented, and assist in establishing adequate fees for service." Accordingly, a financial plan will be developed for the City that will:

- Identify the total cost of providing water service, both operational and capital.
- Develop a funding strategy that will assure financial strength and viability for the utility over a six-year (6 years) projected period, assuring the utility's ability to implement the schedule of capital improvements prior to the next Water Comprehensive Plan update.

- Determine adjustments necessary to water service rates to reflect the impacts of the defined operating and capital needs.

14.2 HDR Services

The financial program will be included in the Water Comprehensive Plan document as follows:

1. Past and Present Financial Condition – document a summary of water utility financial performance for the past six years and document outstanding long-term debt.
2. Available Revenue Sources - Document available sources of revenue and funding for capital and operational costs and describe historical approaches and or policies that establish the City's funding methods.
3. Capital Financing Approaches – Identify capital financing. Develop a financing strategy incorporating rates, capital improvement charges, and debt financing. Identify and document Capital Funding Assistance Programs – Available State and Federal grant and loan programs.
4. Rate Forecast and Rate Impacts – Develop a rate forecast which incorporates the capital and operating requirements identified in this WCP. A six-year forecast will estimate annual rate increases required. For each year, estimate revenues and expenses.
5. Rate Structure and Conservation – Summarize the City's water rate structure and document a qualitative review. The review will focus on water conservation opportunities that might be addressed through rate structure revisions for compliance with the conservation rule.
6. Recommended Financial Strategy – Document a recommended financial strategy addressing funding sources, basic financial policies, rates and charges.

14.3 City Responsibilities

1. Provide financial, budgeting, rate and customer reports.
2. Review the draft WCP chapter and provide written comments within two weeks.

14.4 Assumptions

1. One capital financing alternative will be developed.
2. HDR previously developed a cash flow model and a cost of service analysis for the City. The financial analysis will make use of these existing models, to the extent possible.

14.5 Deliverables

1. Draft and final spreadsheet files and the Financial Plan Chapter.
2. E-mailed Word document file of draft WCP Chapter for the Financial Plan for City review and comment.
3. E-mailed document file of the final WCP Chapter for the Financial Plan.

15.0 Task 15 – Draft and Final CWP Assembly and Delivery

15.1 HDR Services

1. Prepare draft WCP for City review.
2. Address City comments and prepare ten (10) copies of draft Final WCP.
3. Submit draft Final WCP to DOH, adjacent purveyors, and Council for review/approval.
4. Incorporate DOH and Council comments into Final Plan. Document adjacent purveyor comments.
5. Prepare SEPA checklist based on the final WCP, similar recent Water System Plan Updates, and the CIP.
6. Prepare Consistency Statement and the Municipal Water Law General Approval Checklist, as required under MWL.
7. Prepare DOH WCP checklist.
8. Prepare an Executive Summary of the plan to be included at the front of the plan document.
9. Attend Council meeting to present key findings.

15.2 City Responsibilities

1. Provide one set of comments on Draft WCP.
2. Provide one set of comments on Draft Final WCP.
3. Work with HDR to address DOH comments and responses to adjacent purveyors.
4. Review and comment on draft SEPA checklist. Process the environmental determination.
5. Review and comment on DOH and MWL checklists.

15.3 Assumptions

1. Detailed system information judged to be important to system vulnerability will not be included in the final WCP.
2. A checklist is all that will be necessary to meet SEPA requirements.

15.4 Deliverables

1. Provide the following deliverables to the City:
    - Copy ready original paper copy of Final document
    - Ten (10) bound sets of the document with each set bound in two three-ring binders – one with the Water Plan and one with Plan appendices.
    - Ten (10) compact disk PDF file copies of the water plan and appendices.
2. Presentation materials and attendance at one Council meeting.
3. Draft and Final SEPA checklist.
4. DOH WCP Checklist.

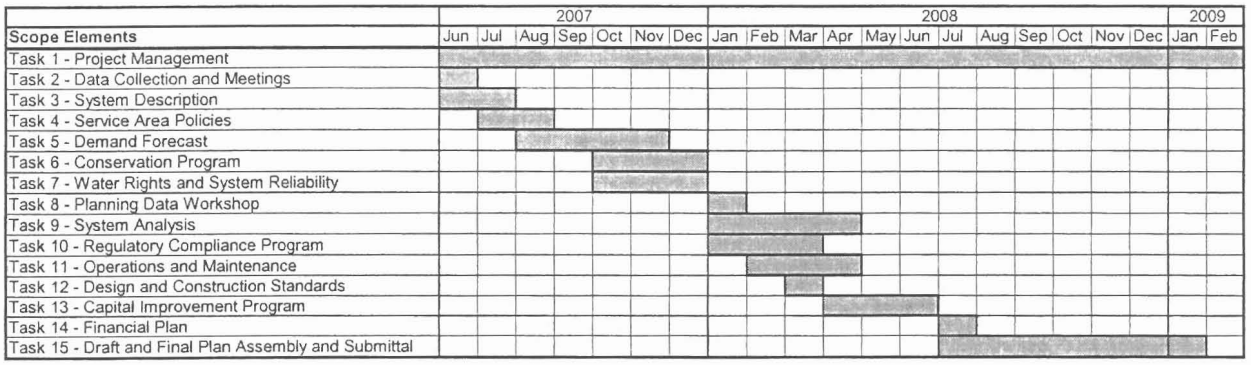
HDR

5. Consistency statement.

16.0 Fee and Schedule

The table below shows the fee for conducting Tasks 1 through 15, as described in the Scope of Work. The figure shows the anticipated schedule for conducting the work as described in the Scope of Work.

Task Description	Hours	Labor Cost with Overhead	Direct Expenses	Profit (12% Labor)	Total Fee
Task 1 - Project Management	184	$24,846	$1,074	$2,981	$28,902
Task 2 - Data Collection and Meetings	40	$4,043	$184	$485	$4,712
Task 3 - Description of Water System	56	$6,303	$546	$756	$7,605
Task 4 - Service Area Policies	58	$5,750	$458	$690	$6,898
Task 5 - Demand Forecast	138	$14,121	$586	$1,695	$16,401
Task 6 - Conservation Program	76	$7,262	$332	$871	$8,465
Task 7 - Water Rights, System Reliability and Supply Strategy	144	$14,617	$610	$1,754	$16,982
Task 8 - Planning Data Workshop	52	$5,766	$473	$692	$6,931
Task 9 - System Analysis	276	$31,642	$1,592	$3,797	$37,031
Task 10 - Water Quality Compliance Program	128	$13,596	$625	$1,632	$15,852
Task 11 - Operations and Maintenance	92	$11,921	$477	$1,431	$13,829
Task 12 - Design and Construction Standards Update	44	$5,343	$200	$641	$6,185
Task 13 - Capital Improvement Program	258	$28,908	$1,158	$3,469	$33,535
Task 14 - Financial Program	88	$10,815	$461	$1,298	$12,573
Task 15 - Draft and Final Comprehensive Water Plan Assembly	262	$28,583	$2,088	$3,430	$34,101
Totals	1,896	$213,515	$10,864	$25,622	$250,000



CITY OF MARYSVILLE
EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: I-5 to City Center Access Study – Phase 1 Standard Consultant Agreement	AGENDA SECTION: New Business
PREPARED BY: Jeff Massie, Assistant City Engineer	AGENDA NUMBER:
ATTACHMENTS: • July 14, 2007 Dongho Chang e-mail message • Local Agency Standard Consultant Agreement with Exhibits A and E-2 only (other exhibits excluded from this package) • Excerpts from WSDOT Design Manual Chapter 1425 • Project Map Exhibit	APPROVED BY: MAYOR / CAO
BUDGET CODE: 30500030.563000 R0603	AMOUNT: $361,090.54

The 2007-2012 Six Year Transportation Improvement Plan, adopted July 10, 2006, proposes a project to develop better access between Interstate 5 and Downtown Marysville. Attached is an e-mail from then Washington State Department of Transportation (WSDOT) Snohomish Area Traffic Engineer Dongho Chang opining the safety and mobility deficiencies on and around the I-5/4th Street interchange.

The consultant selection committee, comprised of both Marysville and WSDOT staff, rated the engineering consultant HDR Engineering, Inc. as the best qualified firm to perform preliminary design engineering on the project. As the City will likely pursue external funds to address downtown access deficiencies, the attached Local Agency Standard Consultant Agreement is utilized because of WSDOT Local Agency Guidelines when project federal funds are involved. The work scope per Agreement Exhibit E-2 abides by WSDOT Design Manual Chapter 1425 entitled "Interchange Justification Report" (IJR), and in accordance with direction received from WSDOT and Federal Highway Administration (FHWA) staff.

The second paragraph under the attached WSDOT Design Manual Section 1425.01 explains FHWA's authority involving revisions to the Interstate system and the purpose of the IJR. The Exhibit B-2 work scope basically follows the "First Step" IJR procedures identified in Design Manual Section 1425.04, including evaluating segments of the local and regional network for system improvements, and identifying and considering investments in local infrastructure to meet the needs of the proposal.

This HDR work scope *does not include* the effort necessary to complete the second and third steps of the process, which is preparing the balance of the IJR by addressing eight policy points; the National Environmental Policy Act (NEPA) environmental review documentation; and review and approval of the IJR and NEPA documents. The expense of completing the IJR process is considerable, and it is anticipated the City may seek external funding opportunities to help offset local fund expenditures.

RECOMMENDED ACTION: Staff recommends the Council authorize the Mayor to sign the Standard Consultant Agreement with HDR Engineering, Inc. to prepare Phase 1 of the I-5 to City Center Access Study for the estimated cost of $361,090.54 including a 5% management reserve.
COUNCIL ACTION:

G:/shared/eng/#R0603/HDR consultant agreement agenda bill.doc

From: "Chang, Dongho" <ChangDH@wsdot.wa.gov>
To: <jmassie@ci.marysville.wa.us>
Date: 7/14/2006 12:41:53 PM
Subject: 4th Street Interchange problem statement

Hi Jeff,

Here is a problem statement that you are welcome to use for the 4th Street feasibility study proposal:

The interchange at I-5 and SR 528 (also known as 4th Street) is the major entrance to the City of Maryville. The capacity at this interchange has long been exceeded while the traffic demand continually increased. Improvements at this interchange are needed to address the safety and capacity needs.

Safety:

I-5 northbound off ramp to SR 528 has been identified as a High Accident Location in 1994, 1996, 1998, 2000, 2002, and 2004. The signalized intersection at this ramp operates beyond capacity, resulting in backups on the off ramp. Total of 33 collisions occurred at the off ramp between 2003 and 2004. 25 of these collisions were rear end crashes, which accounts for 76% of these crashes. The annual societal cost for these collisions is $856,750.

SR 528 between I-5 and the vicinity east of Columbia Avenue has been identified as a High Accident Location in 1994, 1996, 1998, 2000, 2002, and 2004. Total of 139 collisions occurred on SR 528 within this segment between 2003 and 2004. The annual societal cost for these collisions is $1,824,500.

Mobility:

The interchange cannot handle the demand of the peak traffic and is operating beyond capacity. The northbound ramp intersection is operating at Level of Service F and the southbound ramp intersection is operating at Level of Service D. The congestion from the interchange spills over into the Interstate and the City's main artery, SR 528.

Sincerely,

Dongho

Local Agency Standard Consultant Agreement

☒ Architectural/Engineering Agreement
☐ Personal Services Agreement

Agreement Number

Federal Aid Number

Agreement Type (Choose one)

☐ **Lump Sum**
Lump Sum Amount $ _____

☒ **Cost Plus Fixed Fee**
Overhead Progress Payment Rate 167.15 %
Overhead Cost Method
☒ Actual Cost
☐ Actual Cost Not To Exceed _____ %
☐ Fixed Rate _____ %
Fixed Fee $ 33,305.00

☐ **Specific Rates Of Pay**
☐ Negotiated Hourly Rate
☐ Provisional Hourly Rate

☐ **Cost Per Unit of Work**

Consultant/Address/Telephone
HDR Engineering, Inc.
500 108th Ave. NE
Suite 1200
Bellevue, WA 98004-5549

425-453-1523

Project Title And Work Description
I-5 to City Center Access Study - Phase 1

Study of access between Interstate 5 and the City Center, Marysville, Washington. First phase will focus on local arterial improvements and non-interstate state highway improvements.

DBE Participation
☐ Yes ☒ No _____ %

Federal ID Number or Social Security Number
Federal ID No. 470068568

Do you require a 1099 for IRS?
☐ Yes ☒ No

Completion Date
April 30, 2008

Total Amount Authorized $ 343,895.75

Management Reserve Fund $ 17,194.79

Maximum Amount Payable $ 361,090.54

Index of Exhibits

Exhibit "A" - Scope of Work
Exhibit "B" - DBE Participation
Exhibit "C" - Electronic Exchange of Engineering and Other Data
Exhibit "D" - Payment (by Agreement Type)
Exhibit "E" - Consultant Fee Determination
Exhibit "F" - Breakdown of Overhead Cost
Exhibit "G" - Subcontract Work/Fee Determination
Exhibit "H" – Title VI Assurances
Exhibit "I" – Payment Upon Termination of Agreement
Exhibit "J" – Alleged Consultant Design Error Procedures
Exhibit "K" – Consultant Claim Procedures
Exhibit "L" – Liability Insurance Increase
Exhibit "M" – Certification Documents

THIS AGREEMENT, made and entered into this _____ day of _____, _____, between the Local Agency of _____, Washington, hereinafter called the "AGENCY", and the above organization hereinafter called the "CONSULTANT".

WITNESSETH THAT:

WHEREAS, the AGENCY desires to accomplish the above referenced project, and

WHEREAS, the AGENCY does not have sufficient staff to meet the required commitment and therefore deems it advisable and desirable to engage the assistance of a CONSULTANT to provide the necessary services for the PROJECT; and

WHEREAS, the CONSULTANT represents that he/she is in compliance with the Washington State Statutes relating to professional registration, if applicable, and has signified a willingness to furnish Consulting services to the AGENCY,

NOW THEREFORE, in consideration of the terms, conditions, covenants and performance contained herein, or attached and incorporated and made a part hereof, the parties hereto agree as follows:

I General Description of Work

The work under this AGREEMENT shall consist of the above described work and services as herein defined and necessary to accomplish the completed work for this PROJECT. The CONSULTANT shall furnish all services, labor, and related equipment necessary to conduct and complete the work as designated elsewhere in this AGREEMENT.

II Scope of Work

The Scope of Work and projected level of effort required for this PROJECT is detailed in Exhibit "A" attached hereto and by this reference made a part of this AGREEMENT.

III General Requirements

All aspects of coordination of the work of this AGREEMENT with outside agencies, groups, or individuals shall receive advance approval by the AGENCY. Necessary contacts and meetings with agencies, groups, and/or individuals shall be coordinated through the AGENCY. The CONSULTANT shall attend coordination, progress and presentation meetings with the AGENCY and/or such Federal, State, Community, City or County officials, groups or individuals as may be requested by the AGENCY. The AGENCY will provide the CONSULTANT sufficient notice prior to meetings requiring CONSULTANT participation. The minimum required hours or days notice shall be agreed to between the AGENCY and the CONSULTANT and shown in Exhibit "A."

The CONSULTANT shall prepare a monthly progress report, in a form approved by the AGENCY, which will outline in written and graphical form the various phases and the order of performance of the work in sufficient detail so that the progress of the work can easily be evaluated.

The CONSULTANT, and each SUBCONSULTANT, shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The CONSULTANT, and each SUBCONSULTANT, shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by the CONSULTANT to carry out these requirements is a material breach of this AGREEMENT that may result in the termination of this AGREEMENT.

Participation for Disadvantaged Business Enterprises (DBE), if required, per 49 CFR Part 26, or participation of Minority Business Enterprises (MBE), and Women Business Enterprises (WBE), shall be shown on the heading of this AGREEMENT. If D/M/WBE firms are utilized, the amounts authorized to each firm and their certification number will be shown on Exhibit "B" attached hereto and by this reference made a part of this AGREEMENT. If the Prime CONSULTANT is a DBE firm they must comply with the Commercial Useful Function (CUF) regulation outlined in the AGENCY'S "DBE Program Participation Plan". The mandatory DBE participation goals of the AGREEMENT are those established by the WSDOT'S Highway and Local Programs Project Development Engineer in consultation with the AGENCY.

All Reports, PS&E materials, and other data furnished to the CONSULTANT by the AGENCY shall be returned. All electronic files, prepared by the CONSULTANT, must meet the requirements as outlined in Exhibit "C."

All designs, drawings, specifications, documents, and other work products, including all electronic files, prepared by the CONSULTANT prior to completion or termination of this AGREEMENT are instruments of service for this PROJECT, and are the property of the AGENCY. Reuse by the AGENCY or by others, acting through or on behalf of the AGENCY of any such instruments of service, not occurring as a part of this PROJECT, shall be without liability or legal exposure to the CONSULTANT.

IV Time for Beginning and Completion

The CONSULTANT shall not begin any work under the terms of this AGREEMENT until authorized in writing by the AGENCY.

All work under this AGREEMENT shall be completed by the date shown in the heading of this AGREEMENT under completion date.

The established completion time shall not be extended because of any delays attributable to the CONSULTANT, but may be extended by the AGENCY in the event of a delay attributable to the AGENCY, or because of unavoidable delays caused by an act of GOD or governmental actions or other conditions beyond the control of the CONSULTANT. A prior supplemental agreement issued by the AGENCY is required to extend the established completion time.

V Payment Provisions

The CONSULTANT shall be paid by the AGENCY for completed work and services rendered under this AGREEMENT as provided in Exhibit "D" attached hereto, and by reference made part of this AGREEMENT. Such payment shall be full compensation for work performed or services rendered and for all labor, materials, supplies, equipment, and incidentals necessary to complete the work. The CONSULTANT shall conform to all applicable portions of 48 CFR Part 31.

A post audit may be performed on this AGREEMENT. The need for a post audit will be determined by the State Auditor, WSDOT External Audit Office and/or at the request of the AGENCY'S PROJECT Manager.

VI Sub-Contracting

The AGENCY permits sub-contracts for those items of work as shown in Exhibit "G" attached hereto and by this reference made part of this AGREEMENT.

Compensation for this sub-consultant work shall be based on the cost factors shown on Exhibit "G."

The work of the sub-consultant shall not exceed its maximum amount payable unless a prior written approval has been issued by the AGENCY.

All reimbursable direct labor, overhead, direct non-salary costs and fixed fee costs for the sub-consultant shall be substantiated in the same manner as outlined in Section V. All sub-contracts shall contain all applicable provisions of this AGREEMENT.

With respect to sub-consultant payment, the CONSULTANT shall comply with all applicable sections of the Prompt Payment laws as set forth in RCW 39.04.250 and RCW 39.76.011.

The CONSULTANT shall not sub-contract for the performance of any work under this AGREEMENT without prior written permission of the AGENCY. No permission for sub-contracting shall create, between the AGENCY and sub-contractor, any contract or any other relationship. A DBE certified sub-consultant is required to perform a minimum amount of their sub-contracted agreement that is established by the WSDOT Highways and Local Programs Project Development Engineer in consultation with the AGENCY.

VII Employment

The CONSULTANT warrants that they have not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this contract. For breach or violation of this warrant, the AGENCY shall have the right to annul this AGREEMENT without liability or, in its discretion, to deduct from the AGREEMENT price or consideration or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

Any and all employees of the CONSULTANT or other persons while engaged in the performance of any work or services required of the CONSULTANT under this AGREEMENT, shall be considered employees of the CONSULTANT only and not of the AGENCY, and any and all claims that may arise under any Workmen's Compensation Act on behalf of said employees or other persons while so engaged, and any and all claims made by a

third party as a consequence of any act or omission on the part of the CONSULTANT'S employees or other persons while so engaged on any of the work or services provided to be rendered herein, shall be the sole obligation and responsibility of the CONSULTANT.

The CONSULTANT shall not engage, on a full- or part-time basis, or other basis, during the period of the contract, any professional or technical personnel who are, or have been, at any time during the period of the contract, in the employ of the United States Department of Transportation, or the STATE, or the AGENCY, except regularly retired employees, without written consent of the public employer of such person.

VIII Nondiscrimination

During the performance of this contract, the CONSULTANT, for itself, its assignees, and successors in interest agrees to comply with the following laws and regulations:

Title VI of the Civil Rights Act of 1964
(42 USC Chapter 21 Subchapter V Section 2000d through 2000d-4a)

Federal-aid Highway Act of 1973
(23 USC Chapter 3 Section 324)

Rehabilitation Act of 1973
(29 USC Chapter 16 Subchapter V Section 794)

Age Discrimination Act of 1975
(42 USC Chapter 76 Section 6101 et seq.)

Civil Rights Restoration Act of 1987
(Public Law 100-259)

American with Disabilities Act of 1990
(42 USC Chapter 126 Section 12101 et. seq.)

49 CFR Part 21

23 CFR Part 200

RCW 49.60.180

In relation to Title VI of the Civil Rights Act of 1964, the CONSULTANT is bound by the provisions of Exhibit "H" attached hereto and by this reference made part of this AGREEMENT, and shall include the attached Exhibit "H" in every sub-contract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto.

IX Termination of Agreement

The right is reserved by the AGENCY to terminate this AGREEMENT at any time upon ten (10) days written notice to the CONSULTANT.

In the event this AGREEMENT is terminated by the AGENCY other than for default on the part of the CONSULTANT, a final payment shall be made to the CONSULTANT as shown in Exhibit "I" for the type of AGREEMENT used.

No payment shall be made for any work completed after ten (10) days following receipt by the CONSULTANT of the Notice to Terminate. If the accumulated payment made to the CONSULTANT prior to Notice of Termination exceeds the total amount that would be due when computed as set forth herein above, then no final payment shall be due and the CONSULTANT shall immediately reimburse the AGENCY for any excess paid.

If the services of the CONSULTANT are terminated by the AGENCY for default on the part of the CONSULTANT, the above formula for payment shall not apply.

In such an event, the amount to be paid shall be determined by the AGENCY with consideration given to the actual costs incurred by the CONSULTANT in performing the work to the date of termination, the amount of work originally required which was satisfactorily completed to date of termination, whether that work is in a form or a type which is usable to the AGENCY at the time of termination, the cost to the AGENCY of employing another firm to complete the work required and the time which may be required to do so, and other factors which affect the value to the AGENCY of the work performed at the time of termination.

Under no circumstances shall payment made under this subsection exceed the amount, which would have been made using the formula set forth above.

If it is determined for any reason that the CONSULTANT was not in default or that the CONSULTANT'S failure to perform is without the CONSULTANT'S or it's employee's default or negligence, the termination shall be deemed to be a termination for the convenience of the AGENCY. In such an event, the CONSULTANT would be reimbursed for actual costs in accordance with the termination for other than default clauses listed previously.

In the event of the death of any member, partner or officer of the CONSULTANT or any of its supervisory personnel assigned to the PROJECT, or dissolution of the partnership, termination of the corporation, or disaffiliation of the principally involved employee, the surviving members of the CONSULTANT hereby agree to complete the work under the terms of this AGREEMENT, if requested to do so by the AGENCY. This subsection shall not be a bar to renegotiation of the AGREEMENT between the surviving members of the CONSULTANT and the AGENCY, if the AGENCY so chooses.

In the event of the death of any of the parties listed in the previous paragraph, should the surviving members of the CONSULTANT, with the AGENCY'S concurrence, desire to terminate this AGREEMENT, payment shall be made as set forth in the second paragraph of this section.

Payment for any part of the work by the AGENCY shall not constitute a waiver by the AGENCY of any remedies of any type it may have against the CONSULTANT for any breach of this AGREEMENT by the CONSULTANT, or for failure of the CONSULTANT to perform work required of it by the AGENCY. Forbearance of any rights under the AGREEMENT will not constitute waiver of entitlement to exercise those rights with respect to any future act or omission by the CONSULTANT.

X Changes of Work

The CONSULTANT shall make such changes and revisions in the complete work of this AGREEMENT as necessary to correct errors appearing therein, when required to do so by the AGENCY, without additional compensation thereof. Should the AGENCY find it desirable for its own purposes to have previously satisfactorily completed work or parts thereof changed or revised, the CONSULTANT shall make such revisions as directed by the AGENCY. This work shall be considered as Extra Work and will be paid for as herein provided under Section XIV.

XI Disputes

Any dispute concerning questions of fact in connection with the work not disposed of by AGREEMENT between the CONSULTANT and the AGENCY shall be referred for determination to the Director of Public Works or AGENCY Engineer, whose decision in the matter shall be final and binding on the parties of this AGREEMENT; provided, however, that if an action is brought challenging the Director of Public Works or AGENCY Engineer's decision, that decision shall be subject to de novo judicial review. If the parties to this AGREEMENT mutually agree, disputes concerning alleged design errors will be conducted under the procedures found in Exhibit "J", and disputes concerning claims will be conducted under the procedures found in Exhibit "K".

XII Venue, Applicable Law, and Personal Jurisdiction

In the event that either party deems it necessary to institute legal action or proceedings to enforce any right or obligation under this AGREEMENT, the parties hereto agree that any such action shall be initiated in the Superior court of the State of Washington, situated in the county in which the AGENCY is located. The parties hereto agree that all questions shall be resolved by application of Washington law and that the parties to such action shall have the right of appeal from such decisions of the Superior court in accordance with the laws of the State of Washington. The CONSULTANT hereby consents to the personal jurisdiction of the Superior court of the State of Washington, situated in the county in which the AGENCY is located.

XIII Legal Relations

The CONSULTANT shall comply with all Federal, State, and local laws and ordinances applicable to the work to be done under this AGREEMENT. This contract shall be interpreted and construed in accordance with the laws of the State of Washington.

The CONSULTANT shall indemnify and hold the AGENCY and the STATE and its officers and employees harmless from and shall process and defend at its own expense all claims, demands, or suits at law or equity arising in whole or in part from the CONSULTANT'S negligence or breach of any of its obligations under this AGREEMENT; provided that nothing herein shall require a CONSULTANT to indemnify the AGENCY or the STATE against and hold harmless the AGENCY or the STATE from claims, demands or suits based solely upon the conduct of the AGENCY or the STATE, their agents, officers and employees; and provided further that if the claims or suits are caused by or result from the concurrent negligence of (a) the CONSULTANT'S agents or employees, and (b) the AGENCY or the STATE, their agents, officers and employees, this indemnity provision with respect to (1) claims or suits based upon such negligence (2) the costs to the AGENCY or the STATE of defending such claims and suits shall be valid and enforceable only to the extent of the CONSULTANT'S negligence or the negligence of the CONSULTANT'S agents or employees.

The CONSULTANT'S relation to the AGENCY shall be at all times as an independent contractor.

The CONSULTANT shall comply with all applicable sections of the applicable Ethics laws, including RCW 42.23, which is the Code of Ethics for regulating contract interest by municipal officers. The CONSULTANT specifically assumes potential liability for actions brought by the CONSULTANT'S own employees against the AGENCY and, solely for the purpose of this indemnification and defense, the CONSULTANT specifically waives any immunity under the state industrial insurance law, Title 51 RCW.

Unless otherwise specified in the AGREEMENT, the AGENCY shall be responsible for administration of construction contracts, if any, on the PROJECT. Subject to the processing of a new sole source, or an acceptable supplemental agreement, the CONSULTANT shall provide On-Call assistance to the AGENCY during contract administration. By providing such assistance, the CONSULTANT shall assume no responsibility for: proper construction techniques, job site safety, or any construction contractor's failure to perform its work in accordance with the contract documents.

The CONSULTANT shall obtain and keep in force during the terms of the AGREEMENT, or as otherwise required, the following insurance with companies or through sources approved by the State Insurance Commissioner pursuant to Title 48 RCW.

Insurance Coverage

A. Worker's compensation and employer's liability insurance as required by the STATE.
B. Commercial general liability and property damage insurance in an aggregate amount not less than two million dollars ($2,000,000) for bodily injury, including death and property damage. The per occurrence amount shall not exceed one million dollars ($1,000,000).
C. Vehicle liability insurance for any automobile used in an amount not less than a one million dollar ($1,000,000) combined single limit.

Excepting the Worker's Compensation Insurance and any Professional Liability Insurance secured by the CONSULTANT, the AGENCY will be named on all policies as an additional insured. The CONSULTANT shall furnish the AGENCY with verification of insurance and endorsements required by the AGREEMENT. The AGENCY reserves the right to require complete, certified copies of all required insurance policies at any time.

All insurance shall be obtained from an insurance company authorized to do business in the State of Washington. The CONSULTANT shall submit a verification of insurance as outlined above within fourteen (14) days of the execution of this AGREEMENT to the AGENCY.

No cancellation of the foregoing policies shall be effective without thirty (30) days prior notice to the AGENCY.

The CONSULTANT'S professional liability to the AGENCY shall be limited to the amount payable under this AGREEMENT or one million ($1,000,000) dollars, whichever is the greater, unless modified by Exhibit "L". In no case shall the CONSULTANT'S professional liability to third parties be limited in any way.

The AGENCY will pay no progress payments under Section V until the CONSULTANT has fully complied with this section. This remedy is not exclusive; and the AGENCY and the STATE may take such other action as is available to it under other provisions of this AGREEMENT, or otherwise in law.

XIV Extra Work

A. The AGENCY may at any time, by written order, make changes within the general scope of the AGREEMENT in the services to be performed.

B. If any such change causes an increase or decrease in the estimated cost of, or the time required for, performance of any part of the work under this AGREEMENT, whether or not changed by the order, or otherwise affects any other terms and conditions of the AGREEMENT, the AGENCY shall make an equitable adjustment in the (1) maximum amount payable; (2) delivery or completion schedule, or both; and (3) other affected terms and shall modify the AGREEMENT accordingly.

C. The CONSULTANT must submit any "request for equitable adjustment", hereafter referred to as "CLAIM", under this clause within thirty (30) days from the date of receipt of the written order. However, if the AGENCY decides that the facts justify it, the AGENCY may receive and act upon a CLAIM submitted before final payment of the AGREEMENT.

D. Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the CONSULTANT from proceeding with the AGREEMENT as changed.

E. Notwithstanding the terms and conditions of paragraphs (A) and (B) above, the maximum amount payable for this AGREEMENT, shall not be increased or considered to be increased except by specific written supplement to this AGREEMENT.

XV Endorsement of Plans

If applicable, the CONSULTANT shall place their endorsement on all plans, estimates, or any other engineering data furnished by them.

XVI Federal and State Review

The Federal Highway Administration and the Washington State Department of Transportation shall have the right to participate in the review or examination of the work in progress.

XVII Certification of the Consultant and the Agency

Attached hereto as Exhibit "M-1(a and b)" are the Certifications of the CONSULTANT and the AGENCY, Exhibit "M-2" Certification Regarding Debarment, Suspension and Other Responsibility Matters - Primary Covered Transactions, Exhibit "M-3" Certification Regarding the Restrictions of the Use of Federal Funds for Lobbying and Exhibit "M-4" Certificate of Current Cost or Pricing Data. Exhibit "M-3" is required only in AGREEMENTS over $100,000 and Exhibit "M-4" is required only in AGREEMENTS over $500,000.

XVIII Complete Agreement

This document and referenced attachments contain all covenants, stipulations, and provisions agreed upon by the parties. No agent, or representative of either party has authority to make, and the parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein. No changes, amendments, or modifications of the terms hereof shall be valid unless reduced to writing and signed by the parties as an amendment to this AGREEMENT.

XIX Execution and Acceptance

This AGREEMENT may be simultaneously executed in several counterparts, each of which shall be deemed to be an original having identical legal effect. The CONSULTANT does hereby ratify and adopt all statements, representations, warranties, covenants, and agreements contained in the proposal, and the supporting material submitted by the CONSULTANT, and does hereby accept the AGREEMENT and agrees to all of the terms and conditions thereof.

In witness whereof, the parties hereto have executed this AGREEMENT as of the day and year shown in the "Execution Date" box on page one (1) of this AGREEMENT.

By _____ By _____

Consultant 4/24/07 Agency _____

EXHIBIT A – SCOPE OF WORK

SCOPE OF WORK
for
I-5 to City Center Access Study - Phase 1
(study to explore, identify and develop concepts to improve access between Interstate 5 and Marysville's city center)

Marysville, Washington

Prepared by:

HDR Engineering, Inc.
500 108th Avenue NE, Suite 1200
Bellevue, Washington 98004-5538

April 24, 2007

ONE COMPANY | *Many Solutions®*

EXHIBIT A

I-5 to City Center Access Study - Phase 1
Marysville, Washington

SCOPE OF SERVICES

Introduction
The project for which this scope of services is prepared is the study of access between Interstate 5 and the City Center, Marysville, Washington. The first phase of this project, as described within this scope of services, will focus on local arterial improvements, and non-interstate state highway improvements. It is expected that the interchanges with I-5 at 4th Street and at SR 529 will ultimately be shown as key to this project.

HDR Inc. (hereafter "Consultant") shall provide professional services and information to the City of Marysville (hereafter "City") to establish the feasibility of access improvements between Interstate 5 and the City Center.

The services to be provided are listed below as five work elements. Administration includes general project management, stakeholder chartering and coordination, and public involvement support and coordination. Development of an Interchange Justification Report (IJR) may be considered as a supplement to this Agreement.

Element 1.0 - Administration
Element 2.0 - Traffic Analysis
Element 3.0 - Regulatory Analysis
Element 4.0 - Funding Analysis
Element 5.0 - Feasibility Report & Executive Summary

General Assumptions
- Work shall be done by the Consultant.
- The study shall be completed within six (6) months from Notice to Proceed (NTP).

Study Purpose & Expectations
The purpose of this study is to investigate the need for capacity improvements at the I-5 / 4th Street and I-5 / SR 529 interchanges. The congestion at the I-5 / 4th Street interchange reaches levels that are unacceptable and that pose possible safety risks. This phase of the study will identify and assess a comprehensive strategy to improve capacity on local arterials and non-interstate state highways. The most promising options will be evaluated with a baseline configuration identified. The baseline configuration will constitute the assumed, systematic, improvements that would be made to the network of local roadways and non-interstate state highways.

This phase of the study may show that systematic improvements to local roadways and non-interstate state highways would be sufficient to address the current access deficiencies between I-5 and the City Center. Alternatively, this phase of the study may show that no reasonable systematic improvement of non-interstate roadways would be sufficient to address the access deficiencies. This latter scenario would then lead to consideration of improvements to interchanges on I-5.

This study is a first step in identifying capacity improvements along Marysville's most congested corridors. The results from this study can be used to initiate further studies including an IJR if it is determined that improvements to the I-5 interchanges are needed.

Element 1.0 Administration

The Project Administration element of the I-5 to City Center Access Study is intended to provide overall project administration, management and coordinating services. This element includes the following sub-elements:

1.1 General Project Management
1.2 Project Management Plan
1.3 Project Schedule
1.4 Organization Chart
1.5 Kickoff & Progress Meetings
1.6 Progress Reports and Billings
1.7 Stakeholder Chartering and Coordination
1.8 Public Involvement Support and Coordination

1.1 General Project Management

The Consultant shall manage all project work to effectively control costs, maintain schedule, provide quality deliverables appropriate to the goals of the project, and coordinate work between the City, Stakeholders and Consultant. The Consultant shall manage all work utilizing proven, effective means and methods. General project management shall be active during the total duration of the project. For estimating purposes, it is assumed that the project will be completed 6 months from NTP.

The Consultant shall be responsible for managing all subconsultants involved in the study. The Consultant shall develop and execute subconsultant agreements with each Consultant team member that establishes work schedule, scope, and budget.

Assumptions

- Project Management will be ongoing for the term of the contract.

Deliverables

- Full time, on-going, effective management of project, within scope, schedule and budget.
- Executed subconsultant agreements
- On-going coordination of subconsultant efforts
- Effective communication within Consultant team, with consistent use of scheduled internal team meetings, phone calls, emails, and unscheduled meetings as necessary

1.2 Project Management Plan

The Consultant shall prepare a Project Management Plan (PMP) including a copy of the negotiated scope, schedule, budget, project organization chart, and a Work Plan. The PMP shall be submitted to the City within two weeks of the Notice To Proceed and shall include the following elements: negotiated scope and budget, schedule, a Change Management Plan, as well as Quality Control Plan and a Work Plan. The PMP should include copies of QA/QC forms that are used internally by Consultant.

Assumptions

- One draft PMP submitted for comment.
- One revision will be made to the draft to create the final PMP.

Deliverables

- Draft PMP
- Final PMP

1.3 Project Schedule

The Consultant shall develop the project schedule showing important milestone dates for events necessary to complete each task, including deliverable dates, meetings, when input is required from the City and others, time for City review, and time for review by others. The schedule shall allow ten (10) working days for distribution, review, and incorporation of review comments. The project schedule shall be submitted to the City for approval and shall be updated monthly.

Assumptions

- The draft and final original schedules will be delivered to City as part of the PMP.

Deliverables

- Draft original schedule, as part of PMP
- Final original schedule, as part of PMP
- Updated schedule on monthly basis in electronic format as approved by City.

1.4 Organization Chart

The Consultant shall prepare a Project Organization Chart that identifies the City Project Manager, the Consultant Project Manager, and key task leads. Changes to the scope, schedule, budget, or organization of the Consultant team may be done only with the written concurrence (e-mail authorization is permitted) by the City. The Consultant shall also prepare a list of key team members and contact information.

Assumptions

- The Project Organization Chart and list of key team members will be delivered to City as part of the PMP.

Deliverables

- Project Organization Chart.
- List of key team members including the City, WSDOT, other stakeholders, and Consultant.

1.5 Kickoff & Progress Meetings

Lead and participate in a project kickoff meeting. A single 2-hour project kickoff meeting will be held at the City or Consultant facilities and will include the City, Consultant, sub-consultants, WSDOT and FHWA partners as deemed necessary by the City Project Manager. The Consultant shall work with the City to develop the agenda and facilitate the meeting. The Consultant shall prepare and distribute meeting notice, agenda, and summary.

The Consultant PM shall conduct monthly status meetings with the City's project manager (up to a maximum of 6 meetings). The Consultant shall prepare an agenda and individual meeting summaries for the meetings. There shall be one review of the draft agenda and one draft meeting summary. The Consultant shall distribute hard copies of meeting agendas and meeting summaries.

Assumptions

- The Consultant shall conduct one 2-hour kickoff meeting, and up to 6 progress meetings for up to 1.5 hours each meeting.
- Progess meeting location will alternate monthly between City and Consultant offices.
- The City will review and comment one time on each draft agenda and each draft meeting summary.

Deliverables

- One draft agenda, for review, for each meeting.

- One final agenda, for approval, for each meeting.
- Attendence and facilitation at each meeting by an average of two Consultant team members.
- One draft summary, for review, for each meeting.
- One final summary, for approval, for each meeting.

1.6 Progress Reports and Billings

The Consultant shall prepare and submit Monthly Progress Reports with monthly project invoices. These reports shall describe the work by elements accomplished for the given month, and shall identify any emerging issues or problems that may occur in any given month.

These reports shall identify the percentage of work accomplished in a given month, in earned value format. The reports shall also list project activities that shall be conducted in the following reporting period. Invoices should provide the percentage of work completed and the hours for each labor classification by work element. These reports shall be done in a form consistent with City standards.

Deliverables

- Monthly invoices with Monthly Progress Report.

1.7 Stakeholder Chartering and Coordination

The Consultant shall support the City with presentations to the Tulalip Tribes, City of Everett, Snohomish County, Community Transit, WSDOT, FHWA and others as may be identified by the City, to ensure stakeholder concerns are identified and adequately addressed within the access study. The City shall provide copies of all correspondence and meeting summaries resulting from this effort.

The City shall provide ongoing communication with interested stakeholders to ensure timely and effective sharing of information, and to encourage stakeholder buy-in. The City shall provide a final, comprehensive Stakeholder Summary Memo describing stakeholder interests and study participation. The Stakeholder Summary Memo should document accommodations and changes to the study resulting from stakeholder input. The Stakeholder Summary Memo should also document any decisions to **not** accommodate or **not** address any stakeholder concern.

Assumptions

- Up to three two (2) hour meetings will be required under this task.

Deliverables

- Meeting attendance and participation.

1.8 Public Involvement Support and Coordination

The Consultant shall support the City with a presentation to the City Council. The Consultant shall provide display boards, informational handouts, attend, participate, and develop presentation notes.

Assumptions

- There will be only one City Council presentation.
- Four Consultant team members will attend the presentation.
- Four display boards will be developed for the presentation.
- One informational memos/handouts will be developed for the presentation.
- The City will review and comment one time on the presentation notes.

Deliverables

- Up to four display boards.
- One informational memos/handouts.
- Meeting attendance and participation.
- Presentation notes.

Element 2.0 Traffic Analysis

The Traffic Analysis element of the I-5 to City Center Access Study will document the existing traffic conditions for the roadways and intersections within the Study Area of Influence, as identified within the Traffic Assumptions Memorandum. Future traffic conditions will then be evaluated for the no-action alternative and for the identified baseline configuration. The traffic analysis will be comprehensive and include both local and state elements of the transportation system.

While the traffic analysis will be comprehensive, the analysis of non-interstate state highways outside of downtown Marysville will be at a "high level" with relatively less detail than will be given to the downtown arterial roadway system. Critical thought and consideration shall be given to connections between and improvements to local arterials, SR 2, SR 9, SR 528, SR 529, and Interstate 5. This element includes the following sub-elements:

2.1 Traffic Assumptions Memorandum
2.2 Data Gathering
2.3 Data Assembly & Review
2.4 Existing Conditions Analysis
2.5 Future Travel Forecasting
2.6 Future Conditions Analysis
2.7 Traffic Analysis Summary Memo

2.1 Traffic Assumptions Memorandum

The Consultant shall develop a Traffic Assumptions Memorandum to document significant assumptions and parameters for the traffic analysis. The assumptions memo will likely include but not be limited to the information listed below.

A Study Area of Influence described as:

- SR 528 from I-5 to SR 9
- SR 9 from SR 2 to SR 528
- SR 2 from Interstate 5 to SR 9
- Interstate 5 from SR 2 to SR 528

A list of Study Area Intersections to be analyzed, including:

- Marine Dr/31st Ave
- Marine Dr/33rd Ave
- I-5 SB Ramp/4th Street
- I-5 NB Ramp/4th Street
- 4th Street/Beach Ave
- 4th Street/Cedar Ave
- 4th Street/Delta Ave
- 4th Street/State Ave
- 4th Street/47th Ave
- 1st Street/State Ave
- 3rd Street/State Ave
- 6th Street/State Ave
- I-5/SR 529 Ramps (SB merge analysis)
- 1st Street/Cedar Ave.
- SR 528 intersections between State Street and SR 9
- SR 9 intersections between SR 2 and SR 528
- SR 2 intersections and/or interchanges between Interstate 5 and SR 9

A Study Area Baseline Configuration, including:

- Selected improvements to study area intersections
- Selected improvements to study area interchanges
- Selected improvements to study area roadways

Study Area Turning Movement Counts will be taken at up to 20 intersections:

- Identify intersections where counts are necessary.

Level of Analysis Detail for each of the following:

- Study area arterials
- Study area intersections
- Study area non-interstate state highways, intersections and interchanges
- Study area portions of Interstate 5 and associated interchanges

Assumptions

- The City will review and comment up to two times on the assumptions memo.
- Up to two revisions will be made to create the final assumptions.
- One final Traffic Assumptions Memorandum will be submitted for approval.

Deliverables

- First draft memo for review and comment.
- Second draft memo for review and comment.
- Final Traffic Assumptions Memorandum for approval and use.

2.2 Data Gathering

The Consultant shall gather available existing data including traffic volume counts, signal timing data, train data, trail maps, past studies, transit data and the current demand model. Turning movement counts are assumed to be needed for up to 20 intersections. (Marysville's most current intersection turning counts were obtained in late 2004) The Consultant will utilize a subconsultant to conduct these turning movement counts.

Assumptions

- Turning movement counts will be necessary for twenty intersections
- Freeway and ramp volume data will be provided by WSDOT
- Past studies will be provided by the City - probably limited to the 2005 and 2003 Transpo Element Update of the Comp Plan.
- The current travel demand model will be provided by the City. HDR will include some time for coordination and transfer of the travel demand model.
- Include WSDOT's corridor study on SR 9
- Include the 1992 FEIS for the I-5 and 88th Street NE Interchange
- Include the 1993 EA for the I-5 and 88th Street NE Interchange
- Include transportation improvements within the City's Comprehensive Plan.

2.3 Data Assembly & Review

The Consultant shall assemble and inventory the data for use in the study. A review of data will be performed to determine if updated traffic counts are necessary. Historical traffic growth trends will be determined to adjust traffic counts to a consistent existing year with consideration for volume balancing. Provided studies will be reviewed to provide a full background of past and future plans for the City.

Deliverables

- Data Inventory

2.4 Existing Conditions Analysis

The Consultant shall determine existing level of service conditions in the study area for the PM peak hour conditions. Synchro software will be used to perform the analysis in conformance with the Highway Capacity Manual procedures. An analysis of train crossings will be performed to quantify the affects on the transportation system. The Consultant shall identify and document existing safety and operational problems on local roadways, state highways and I-5 within the study area.

A traffic simulation model (VISSIM) will also be prepared for the study area and calibrated to existing conditions. Level of service data will be summarized from the simulation output. It is the Consultant's opinion that the simulation model will be necessary to prove the need for I-5 Interchange modifications or additions in addition to any arterial/collector street improvements. An existing conditions model must be prepared to set the stage for the future no-action and action alternative evaluations.

2.5 Future Travel Forecasting

The Consultant shall develop future travel forecasts. The TModel2 model provided to the Consultant will be converted to VISUM for Consultant use. Future forecasts from the VISUM model will be compared to the original model forecasts to verify consistency. Forecasts for the no-action and baseline configuration alternatives will be prepared based upon data gathered and information developed in other study tasks. Peak hour traffic volumes will be prepared for the study intersections for the PM peak hour conditions (TModel2 is typically a PM peak model only). AM forecasts will be developed by estimation techniques. Resultant model files and data will be provided to the City. The Consultant will coordinate with the travel demand modeling consultant who holds the most current demand model. The PSRC model will also need to be utilized to develop forecasts for key roadways not included in the TModel2 Marysville model (i.e. SR2 & SR 9).

2.6 Future Conditions Analysis

The Consultant shall complete a Synchro analysis of the no-action and baseline configuration alternatives. Level of service and delay findings will be summarized in conformance with Highway Capacity Manual methods for use in the technical documentation. Train crossing impacts the transportation system will be evaluated based upon future train volume projections.

VISSIM Simulation analysis will be conducted for the no-action and baseline alternatives for the local network between I-5 and the City Center. Operational measures will be summarized for alternative comparisons. Visualizations will be prepared for the alternatives for use in project, Council and, potentially, future public meetings.

Assumptions

- Synchro analysis will include iterations of analysis as alternative street improvements are tested for overall applicability and benefit.
- Simulation analysis will be necessary to evaluate congestion and freeway ramp operations. Level of service will be reported in conformance with the Highway Capacity Manual. For ramp merge conditions LOS is based upon density.

2.7 Traffic Analysis Summary Memo

The Consultant shall provide a final, comprehensive Traffic Analysis Summary Memorandum documenting all significant findings and decisions developed in work elements 2.1 through 2.6. The Traffic Analysis Summary Memorandum will document the agreed baseline configuration by the stakeholders. It will also document any assumptions or changes to assumptions made as a result of input from stakeholders, regulatory agencies and the public.

The Traffic Analysis Summary Memorandum will specifically discuss whether baseline configuration improvements to local roadways and non-interstate state highways would be sufficient to address the access deficiencies between I-5 and the City Center. The memo will further discuss whether consideration of improvements to interchanges on I-5 are necessary to adequately address those same access deficiencies.

Assumptions

- The City, WSDOT and FHWA will reach consensus on feasible baseline configuration
- The City, WSDOT and FHWA will review and comment two times on the Traffic Analysis Summary Memo.

Deliverables

- Baseline Configuration memo summarizing list of feasible baseline projects
- Two draft versions of the Traffic Analysis Summary Memo, for review and comment.
- One final Traffic Analysis Summary Memo, for approval.

Element 3.0 Regulatory Analysis

The Regulatory Analysis work element of the I-5 to City Center Access Study shall identify, assess and document the environmental and regulatory conditions and issues that may affect the no-action and baseline alternatives developed in this project. This element includes the following sub-elements:

3.1 Environmental Overview

The Consultant shall conduct a brief environmental overview of the no-action and baseline configuration alternatives as identified and developed in work element 2. The overview is intended to identify any potential environmental issues that may affect project development, or result in potential fatal flaws or areas of concern. The overview shall include an evaluation of the study area to determine the presence of potential fatal flaws for wetlands, critical habitat areas, cultural resources, hazardous materials, land use, and parks and recreation as an initial step.

The Consultant shall prepare a brief Environmental Overview Memo (EOM) documenting any environmental issues identified for each of the alternatives presented, and summarizing any conclusions or findings developed from review of the alternatives.

Assumptions

- Up to two (2) alternatives will be presented in the memo.
- The City and WSDOT will review and comment one time on the EOM.
- One revision will be made to the draft to create the final EOM.

Deliverables

- Collection and review of studies and plans.
- One draft EOM for review and comment.
- One final EOM for approval.

3.2 Regulatory Review and Recommendations

Based upon the results of Work Element 3.1, the Consultant, in coordination with the City and WSDOT, shall review the level of environmental documentation that may be needed for NEPA and SEPA compliance. The Consultant shall estimate the duration of the documentation process and the amount of agency coordination required. The Consultant shall identify additional environmental studies that might be needed at this stage in alternatives identification and development.

The Consultant shall review and compile a list of local, state, and federal permits that may be required. A brief description and timeline shall be presented as a Regulatory Matrix (RM).

Assumptions

- Up to two (2) alternatives will be reviewed and presented in the matrix.
- One meeting with City staff and project team members to identify environmental documentation requirements.
- The City and WSDOT will review and comment one time on the RM.

- One revision will be made to the draft to create the final RM.

Deliverables

- One draft RM for review and comment.
- One final RM for approval.

Element 4.0 Funding Analysis

The Funding Analysis work element of the I-5 to City Center Access Study will identify and evaluate the potential funding sources for the project components. This element includes the following sub-elements:

4.1 Develop Potential Funding Sources List
4.2 Analysis of Funding Potential
4.3 Funding Analysis Summary Memo

4.1 Develop Potential Funding Sources List

The Consultant shall identify the potential funding sources for the project and prepare a summary of the potential sources in a matrix format. This Potential Funding Source Matrix (PFSM) will identify the following:

- Potential Funding Source
- Range of Possible Funding Amounts Available to City
- Summary of Process to Apply for Funds
- Schedule of Funding Accessibility
- Contact Individuals for Funding
- Special Requirements Associated with Funding

The Consultant will submit the PFSM to the City for review and comment.

Assumptions

- Existing Federal, State and Local funding sources and options will be identified.
- Private funding sources will only include information provided by the City.
- Federal funding will be based on the current highway funding bill, SAFETEA-LU.
- The City will review and comment one time on the PFSM.
- One revision will be made to the draft to create the final PFSM.

Deliverables

- One draft PFSM for review and comment.
- One final PFSM for approval.

4.2 Analysis of Funding Potential

The Consultant shall analyze each funding source and evaluate the following:

- Expectation of success in obtaining project funding.
- Impacts on Project associated with funding source, including:
  - Schedule
  - Costs
  - Design Requirements
- Potential funding amounts City may expect to obtain.

The Consultant will submit the results of the analysis to the City for review and comment, as a Funding Potential Memo (FPM).

Assumptions

- Potential for funding is highly subjective and will require review and concurrence by City.
- Analysis of funding sources will be based on Consultant experience, review of existing information, discussion with accessible funding personnel, and input from City.
- The City will review and comment one time on the FPM.
- One revision will be made to the draft to create the final FPM.

Deliverables

- One draft FPM for review and comment.
- One final FPM for approval.

4.3 Funding Analysis Summary Memo

The Consultant shall provide a final Funding Analysis Summary Memo (FASM) summarizing the results of the funding investigation and analysis. The FASM will include a summary table of potential funding sources, an analysis of each funding source, and a recommendations section.

Assumptions

- One round of City review of the FASM is included.
- FASM is anticipated to be between five and ten pages, including tables and graphics.

Deliverables

- One draft FASM, for review and comment.
- One final FASM, for approval.

4.4 Preparation of a Project Funding Brochure

The Consultant shall prepare a single sheet brochure that describes the purpose of the project, the preferred alternative, schedule and funding goals for the City to use in its efforts to secure funding from federal, state and other sources.

Assumptions

- One round of City review of the draft Project Funding Brochure is included.
- The brochure will include color graphics and photos prepared as part of other efforts within this scope.
- The brochure is assumed to be prepared as a single sheet, folded handout form.
- The City will provide all printing and distribution of the brochure.
- One revision within the contract period to the final brochure is included in this scope.

Deliverables

- One draft brochure for review and comment.
- One final brochure in electronic format suitable for printing.
- One revised brochure in electronic format suitable for printing.

Element 5.0 Study Report

The Study Report work element of the I-5 to City Center Access Study will document and summarize all relevant study information in a single, comprehensive City Center Access Study - Phase 1 Report. This element includes the following sub-elements:

5.1 Feasibility Report & Executive Summary

The Consultant shall prepare an I-5 to City Center Access Study - Phase 1 Report. The Study Report will be a comprehensive report that documents and summarizes all significant data, memos, findings and recommendations developed in work elements 1.0 through 4.0. The Consultant shall develop and include

overall study findings and recommendations that integrate and build upon all previous study findings and recommendations.

An Executive Summary will be prepared for submittal with the final Study Report. The document will condense the project findings and recommendations into three or four pages.

Assumptions

- The City will review and comment up to two times on the study report.
- Up to two revisions will be made to create the final report.
- One final Study Report will be submitted for approval.

Deliverables

- First draft report for review and comment.
- Second draft for review and comment.
- Final Study Report for approval and use.
- Executive Summary

I-5 to City Center Access Study - Marysville, Washington

			j. villager	d. sims	m. press	m.witter	s. wright r. spellecacy m. bockencamp	c. stampher	p. ferrier	c. graham j. german	l. lin j. shippy h. sung	t. wang c. sokol	c.wilcox	j. crotwell	g. sacco	m. finn
HDR		-	Senior Project Manager	Project Manage	Senior Planner	Senior Scientist	Planner Scientist	Senior Funding	Senior Project Engineer	Project Engineer	Traffic Engineer	Traffic Modeler	CAD Tech.	GIS	Senior Admin.	Admin.
Work Elem.	Description	HOURS														
1	**Administration**	445	57	186	11	2		15	12	40	8		24	24	36	30
1.1	General Project Management	95	25	70												
1.2	Project Management Plan	24		20												4
1.3	Project Schedule	18	2	16												
1.4	Organization Chart	8	2	2												4
1.5	Kickoff and Progress Meetings	73	20	31	7	2		7								6
1.6	Progress Reports and Billings	54		18											36	
1.7	Stakeholder Chartering and Coordination	40	8	16				4								12
1.8	Public Involvement Support and Coordination	133		13	4			4	12	40	8		24	24		4
2	**Traffic Analysis**	1802		136							728	898		40		
2.1	Traffic Assumptions Memorandum			8							4	4				
2.2	Data Gathering	128		8							40	40		40		
2.3	Data Assembly and Review	104		24							40	40				
2.4	Existing Conditions Analysis	514		24							150	340				
2.5	Future Travel Forecasting	520		40							240	240				
2.6	Future Conditions Analysis	512		32							250	230				
2.7	Traffic Analysis Summary Memorandum	24		8							8	8				
3	**Regulatory Analysis**	136	4		8	4	72							40		8
3.1	Environmental Overview	90	2		4	4	36							40		4
3.2	Regulatory Review and Recommendations	46	2		4		36									4
4	**Funding Analysis**	77	5					44								28
4.1	Develop Potential Funding Sources List	9	1					8								
4.2	Analysis of Funding Potential	12						12								
4.3	Funding Analysis Summary Memo	18	2					12								4
4.4	Project Funding Brochure	38	2					12								24
5	**Study Report**	172	12	76	8			12			24	24				16
5.1	Feasibility Report & Executive Summary	172	12	76	8			12			24	24				16
	TOTALS	2632	78	398	27	6	72	71	12	40	760	922	24	104	36	82

EXHIBIT E-2

Advance copy

Chapter 1425 Interchange Justification Report

1425.01 General

This chapter provides guidance on Interchange Justification Reports (IJR), developing the required documentation for an IJR, and the sequence of an IJR presentation. The guidance is applicable to both Interstate and non-Interstate limited access routes. Engineers in the Washington State Department of Transportation (WSDOT) Headquarters (HQ) Access and Hearings Unit specialize in providing support for meeting the guidance provided in this chapter. They should be consulted early and frequently during the development of projects that require the types of documentation described herein.

Federal law requires Federal Highway Administration (FHWA) approval of all revisions to the Interstate system, including changes to limited access. Both FHWA and WSDOT policy require the formal submission of a request to either break or revise the existing limited access on Interstate and state routes, respectively. An IJR is the document used to request a new access point or access point revision on limited access freeways in Washington State. The IJR is used to document the planning process, the evaluation of the alternatives considered, the design of the preferred alternative, and the coordination that supports and justifies the request for an access revision. The IJR is scalable to the complexity of the proposal (see Figures 1425-1, 2, and 3).

A transportation proposal that requires a break in or revision to the existing limited access control, such as a new interchange, should begin with a study of the corridor to determine existing and future access needs. These needs then become part of the statewide plan, called the *State Highway System Plan*. The *State Highway System Plan* defines *Service Objectives*, *Action Strategies,* and costs to plan for, maintain, operate, preserve, and improve the state highway system for the next 20 years. Work that does not fit any of the action strategies will not be authorized or considered in the development of the Statewide Transportation Improvement Program (STIP) or any other budget proposal. (See Chapter 120.) Alternatives should be developed and evaluated. A final preferred alternative is then analyzed, selected, approved, designed, constructed, maintained, and monitored.

The corridor study must evaluate existing local infrastructure and existing access points to determine whether an access point revision is necessary. The evaluation of the proposal begins by studying the corridor throughout the area of influence.

For all complex projects (new or significantly reconfigured interchanges), WSDOT strongly advises that a support team be established to help integrate the planning, programming, environmental, traffic, safety, and design efforts that lead to development of a proposal. When a third party, such as a local agency, is proposing an access point revision, FHWA requires that a study team be formed.

An IJR is a stand-alone document that includes the necessary supporting information needed for a request to break or revise the existing limited access. The IJR includes information about the proposed project, the new access or access point revision, and information about all other local and state improvements that are needed for the access to operate. The complexity of the report varies considerably with the scope of the proposed access point revision. For example, for minor ramp revisions, added on- and off-ramp lanes, and locked gates to sites normally accessed by another route, the approval request may be condensed to a

letter format that includes adequate justification. An operational/safety analysis may be required to assure no adverse impacts to the Interstate or crossroad(s). Contact the HQ Access and Hearings Unit to determine the appropriate level of report documentation needed for all access changes.

An IJR cannot be approved prior to the approval of the project environmental document. For example, a project environmental document might be an Environmental Impact Statement (EIS) or an Environmental Assessment (EA). Approval of these documents is signified by a Record of Decision for an EIS, or a Finding of No Significant Impact might be issued for an EA document indicating an EIS is not required. (Chapter 220 provides further discussion on project environmental documentation.)

If the new or revised access proposal is found to be acceptable prior to the environmental approval, a finding of engineering and operational acceptability is granted by FHWA. Final approval of the IJR is granted concurrently with the appropriate environmental documentation. If the proposal is found to be acceptable after the project environmental document is approved, the IJR can be approved. On Interstate projects, a submittal letter shall be sent by the region through the WSDOT Access and Hearings Unit requesting final FHWA approval of the IJR. On non-Interstate projects, a similar process is followed, except that the WSDOT Assistant State Design Engineer grants the final approval, not the FHWA.

Recognizing that the time period between the approval of the IJR, the environmental documentation, and the construction contract commonly spans several years, the approved IJR will be reviewed and updated if significant changes have occurred during this process. A summary assessment will be submitted to the HQ Design Office and FHWA for evaluation to determine whether the IJR needs to be updated. Contact the HQ Access and Hearings Unit to coordinate this summary assessment.

1425.02 References

(1) Law

Laws and codes (both federal and state) that may pertain to this chapter include the following:

Code of Federal Regulations (CFR) 23 CFR Part 450 (implementing 23 USC Section 111)

40 CFR Parts 51 and 93 (regarding federal conformity with state and federal air quality implementation plans)

United States Code 23 USC Section 111 (requires the U.S. Secretary of Transportation to approve access revisions to the Interstate System), 134 (Metropolitan Planning), and 135 (Statewide Planning)

(2) Design Guidance

The following contain guidance that is included by reference within the text:

Highway Capacity Manual, Special Report No 209 (HCM), Transportation Research Council

Local Agency Guidelines (LAG), M 36-63, WSDOT

(3) Supporting Information

The following were used in the development of this chapter or contain additional information:

Forecasting and Methods Matrix (when available), WSDOT

Notice of policy statement: "Additional Interchanges to the Interstate System," Federal Highway Administration notice published in the Federal Register, October 22, 1990 (Vol. 55, No. 204)

Notice of policy statement: "Additional Interchanges to the Interstate System," Federal Highway Administration notice published in the Federal Register on February 11, 1998. (Vol. 63, No. 28) (accessible in http://www.access.gpo.gov/su_docs/fedreg/a980211c.html, under FHWA notices, "Interstate system, additional interchanges, policy statement, 7045-7047")

purpose General project goals such as: (1) improve safety, (2) enhance mobility, or (3) enhance economic development.

Record of Decision Under the National Environmental Policy Act, the Record of Decision (ROD) accompanies the Final Environmental Impact Statement; explains the reasons for the project decision; discusses alternatives and values considered in selection of the preferred alternative; and summarizes mitigation measures and commitments that will be incorporated in the project.

study area The transportation system area to study in both step one of the study process and for an IJR. The study area is a minimum of one interchange upstream and downstream from the proposal.

support team An integral part of the IJR process consisting of an assemblage of people organized to develop and analyze solutions to meet the need of a proposal.

Transportation Management Area (TMA) Urbanized areas with populations of 200,000 or greater are federally designated as Transportation Management Areas.

travel demand Local travel demand constitutes short trips that should be made on the local transportation system, such as intracity roads and streets. Regional travel demand constitutes long trips that are made on the regional transportation system, such as Interstate, regional, and/or intercity/ interregional roads, streets, or highways.

traveled way The portion of the roadway intended for the movement of vehicles, exclusive of shoulders and lanes for parking, turning, and storage for turning.

trips Short trips are normally intracity. Long trips are normally interstate, regional, or interregional.

1425.04 Procedures

Figures 1425-1 and 2 list the project types most likely to affect freeway safety and operations, requiring the submission of an Interchange Justification Report. Figure 1425-3 lists project types least likely to require the submission of an IJR. Consult the HQ Access and Hearings Unit early in the process for specific direction.

Gaining concurrence and approval for an access point revision is a multistep process. The first step consists of a study. If the study shows that the purpose and need of the proposal cannot be achieved with improvements to the local infrastructure only, the next step would normally be an IJR. (See the IJR Flow Chart, Figure 1425-4.)

(1) The First Step

Study the transportation systems in the area. This study will identify the segments of both the local and regional network that are currently experiencing congestion or safety deficiencies, or where planned land use changes will prompt the need to evaluate the demands on and the capacity of the transportation system. The study area includes the affected existing and proposed adjacent interchanges/intersections upstream and downstream from the proposed access point revision. If it is documented that the proposal creates no impacts to the adjacent interchanges/intersections, then analyze only through the area of influence. When the area of influence extends beyond the one interchange upstream and downstream, extend the analysis far enough to include the extent of the traffic impacts.

Segments of the local and regional network within the study area will be evaluated for system improvements. Part of the study process is to identify local infrastructure needs and develop a proposal. The study must consider investments in local infrastructure improvements to meet the needs of the proposal, because those improvements may provide the desired solution.

During the study process and while developing a proposal, it is important to use the data and analysis methods required for an IJR. If the study indicates that an IJR is warranted, the study data can be utilized

in the IJR. Establish a support team for the study. This same support team would also be involved with the IJR process if the study shows that either a revision or a new access point is needed to meet the proposal purpose and need. The support team normally consists of the following:

- FHWA Area Engineer for Interstate Projects
- Region's Design or Project Development Engineer or Designee
- HQ Assistant State Design Engineer
- HQ Access and Hearings Unit Engineer
- HQ Traffic Office Representative
- Representative From Local Agencies (city, county, port, or tribal government)
- Recorder

The support team is encouraged to call upon specialists as needed; for example:

- Metropolitan Planning Organization (MPO)
- Regional Transportation Planning Organization (RTPO)
- WSDOT Region
  - Planning
  - Design
  - Environmental
  - Maintenance
  - IJR writer
- WSDOT Headquarters
  - Design
  - Bridge
  - Traffic
  - Geotechnical
- Project Proponent Specialists
- Transit Agencies

The support team's role is to:

- Develop a charter that includes the processes for reaching agreement, resolving disputes, and assigning responsibility for final decisions when consensus is not reached.
- Develop purpose, need, and vision statements for the study. This should be consistent with the project environmental document.
- Expedite the study step (and, if needed, the IJR development and review process) through early communication and agreement.
- Agree on area of influence and travel assumptions for the study and, if an IJR is needed, for each of the alternatives being considered.
- Develop the access assumptions document.

- Provide guidance and support.
- Evaluate data and identify possible alternatives for the proposal during the study and, if needed, for an IJR.
- Contribute material for the report that documents the discussions and decisions.
- Review results and determine whether an IJR is warranted.
- Ensure the compatibility of data used in various studies.
- Ensure integration of the Project Definition process, Value Engineering studies, public involvement efforts, environmental analyses, operational analyses, safety analyses, other analyses for the study (and, if needed, to prepare an IJR). This encourages the use of consistent data.
- Address design elements. Status of known deviations must be noted in Policy Point 4. Deviations are discouraged on new accesses.

(2) The Second Step

Prepare a detailed IJR using the guidance in 1425.05, "Interchange Justification Report and Supporting Analyses," and Figure 1425-4.

The IJR addresses eight specific policy topics. (See Figures 1425-1 and 2 for exceptions.) In order of presentation, the topics are:

1. Need for the Access Point Revision
2. Reasonable Alternatives
3. Operational and Accident Analyses
4. Access Connections and Design
5. Land Use and Transportation Plans
6. Future Interchanges
7. Coordination
8. Environmental Processes

The IJR is initiated early in the environmental process. Traffic analyses help define the area of impact and the range of alternatives. Since the traffic data required for the National Environmental Policy Act (NEPA) or the State Environmental Policy Act (SEPA) and the operational/safety analyses of the decision report are similar, these documents are usually developed together using the same data sources and procedures.

(3) The Third Step

Concurrence and approval of a new or revised access point is based on the IJR. The IJR contains sufficient information about and evaluation/analysis of the proposal to provide assurance that the safety and operations of the freeway system are not adversely impacted.

The region, with the help of the support team, prepares the IJR and submits four draft copies, including backup traffic data, for review. For a final IJR submittal, contact the HQ Access and Hearing Unit for the necessary number of copies. All IJRs are submitted to the HQ Access and Hearings Unit for review. Interstate IJRs are submitted by Headquarters to FHWA for concurrence and approval.

Interstate access point revisions are reviewed by both Headquarters and FHWA. If they are found to be acceptable to FHWA, they are given a finding of engineering and operational acceptability. Some

Interstate IJRs are reviewed and approved by the local FHWA Division Office. Other Interstate IJRs are reviewed and approved by the Federal Highway Administration in Washington, DC. Additional review time is necessary for reports that have to be submitted to Washington DC. (See Figure 1425-1.)

If the IJR is finalized prior to the completion of the environmental process, it can be submitted for concurrence. Concurrence with the proposed Interstate access point revision can be made by FHWA in the form of a finding of engineering and operational acceptability. Final IJR approval by FHWA is provided concurrently with the appropriate final environmental decision: ECS, FONSI, or ROD (see definitions). For non-Interstate routes, the Assistant State Design Engineer's approval is given concurrently with environmental approval. (See Figure 1425-4.)

1425.05 Interchange Justification Report and Supporting Analyses

Begin the IJR with an executive summary. Briefly state what access point revision is being submitted for a decision and why the revision is needed. Include a brief summary of the proposal. Formatting for the IJR includes (1) providing numbered tabs in the decision report for the policy points and appendices, and (2) numbering all pages including references and appendices. A suggestion for page numbering is to number each individual section, such as "Policy Point 3, PP3–4" and "Appendix 2, A2–25." This allows for changes without renumbering the entire report. The IJR must be assembled in the policy point order noted in this chapter.

On the bottom left of each page, place the revision date for each version of the IJR. As an individual page is updated, this revision date will help track the most current version of that page. Also, include the title of the report on the bottom left of each page. The use of comb binding is not allowed.

The eight policy points, which apply to both urban and rural areas, are presented below. Guidance is provided for the most extreme condition—a new interchange in an urbanized area. The scope of the analyses and documentation need not be as extensive for more modest access point revisions. Factors that affect the scope include location (rural or urban), access points (new or revised), ramps (new or existing), and ramp terminals (freeway or local road).

(1) Policy Point 1: Need for the Access Point Revision

What are the current and projected needs? Why are the existing access points and the existing or improved local system unable to meet the proposal needs? Is the anticipated demand short or long trip?

Describe the need for the access point revision and why the existing access points and the existing or improved local system do not address the need. How does the proposal meet the anticipated travel demand? Provide the analysis and data to support the need for the access request.

(a) ***Project Description.*** Describe the needs being addressed and the proposal.

Demonstrate that improvements to the local transportation system and the existing interchanges cannot be improved to satisfactorily accommodate the design year travel demands. Describe traffic mitigation measures considered at locations where the level of service is (or will be) below service standards in the design year.

The access point revision is primarily to meet regional, not local, travel demands. Describe the local and regional traffic (trip link and/or route choice) benefiting from the proposal.

(b) ***Analysis and Data.*** The proposal analysis, data, and study area must be agreed upon by the support team. The assumptions document captures the specific items.

Show that a preliminary (planning level) analysis, comparing build to no-build (baseline) data, was conducted for the current year, year of opening, and design year, comparing baseline, no-build condition, and build alternatives. Include the following steps:

- Define the study areas. The study area normally includes one interchange upstream and downstream from the proposed system revision. If the proposal's area of influence extends beyond those interchanges, the study area will be expanded accordingly.
- Collect and analyze current traffic volumes to develop current year, year of opening, and design year peak hour traffic estimates for the regional and local systems in the area of the proposal. Use regional transportation planning organization-based forecasts, refined by accepted travel demand estimating procedures. Forecasts for specific ramp traffic can require other methods of estimation procedures and must be consistent with the projections of the travel demand models. Modeling must include increased demand caused by anticipated development.
- Using existing information, identify the origins and destinations of trips on the local systems, the existing interchange/intersections, and the proposed access.
- Assign the appropriate travel demand to improvements that might be made to:
  - The local system (widen, add new surface routes, coordinate the signal system, control access, improve local circulation, or improve parallel roads or streets).
  - The existing interchanges (lengthen or widen ramps, add park and ride lots, or add frontage roads).
  - The freeway lanes (add collector-distributor roads or auxiliary lanes).
  - Transportation system management and travel demand management measures.
- Describe the current, year of opening, and design year level of service at all affected locations within the study area, including local systems, existing ramps, and freeway lanes.

(2) Policy Point 2: Reasonable Alternatives

Describe the reasonable alternatives that have been evaluated.

Describe all reasonable alternatives that have been considered: the design options, locations, and transportation system management-type improvements such as ramp metering, mass transit, and HOV facilities that have been assessed and that meet the proposal design year needs.

After describing each of the alternatives that were proposed, explain why reasonable alternatives were omitted or dismissed from further consideration.

Future projects must be coordinated as described in Policy Point 7.

(3) Policy Point 3: Operational and Accident Analyses

How will the proposal affect safety and traffic operations at year of opening and design year?

Policy Point 3 documents the procedures used to conduct the operational and accident analyses and the results that support the proposal.

The preferred operational alternative is selected, in part, by showing that it will not have a significant adverse impact on the operation and safety of the freeway and the affected local network, or that the proposal impacts will be mitigated.

Document the results of the following analyses in the report:

- "No-Build" Analysis – An operational analysis of the current year, year of opening, and design year for the existing limited access freeway and the affected local roadway system. This is the baseline "no-build" condition, including state transportation plan and comprehensive plan improvements expected to exist. All of the alternatives will be compared to the no-build condition.

- "Build" Analysis – An operational analysis of the year of opening and design year for the proposed future freeway and the affected local roadway system.
- An accident analysis for the most current data year, year of opening, and design year of the existing limited access freeway and the affected local roadway system for the "no-build." An accident analysis should also be performed for the "build" as well.

The data used must be consistent with the data used in the environmental documentation. If not, provide justification for the discrepancies.

(a) ***Operational Analyses***. Demonstrate that the proposal does not have a significant adverse impact on the operation of the freeway or the adjacent affected local roadway system. If there are proposal impacts, explain how the impacts will be mitigated.

Document the selected operational analysis procedures. For complex urban projects, a refined model might be necessary. As a minimum, an analysis using the current version of the latest accepted *Highway Capacity Manual* (HCM) is necessary. Any procedure used must provide a measure of effectiveness compatible with the HCM. WSDOT currently supports the following traffic analysis and traffic simulation software:

- HCS
- Synchro
- Vissim
- Corsim

Refer to *Design Manual* Chapter 610, "Highway Capacity," for more detail.

FHWA must conduct its independent analysis using HCS. In those instances where HCS is not the appropriate tool to use and a simulation-type software is chosen, early coordination with FHWA is necessary.

All operational analyses shall be of sufficient detail, and include sufficient data and procedure documentation to allow independent analysis during FHWA and HQ evaluation of the proposal. For Interstates, HQ must provide concurrence before it transmits the proposal to FHWA with its recommendation.

Prepare a layout displaying adjacent interchanges/intersections and the data noted below. The data should show:

- Distances between intersections or ramps of a proposed interchange, and that of adjacent existing and known proposed interchanges.
- Design speeds.
- Grades.
- Truck volume percentages on the freeway, ramps, and affected roadways.
- Adjustment factors (such as peak hour factors).
- Affected freeway, ramp, and local roadway system traffic volumes for the "no-build" and each "build" option. This will include: A.M. and P.M. peaks (noon peaks, if applicable); turning volumes; average daily traffic (ADT) for the current year; and forecast ADT for year of opening and design year.
- Affected main line, ramp, and local roadway system lane configurations.

The study area of the capacity analysis on the local roadway system includes documenting that the local network is able to safely and adequately collect and distribute any new traffic loads resulting from the access point revision. Expand the limits of the study area, if necessary, to analyze the coordination required with an in-place or proposed traffic signal system. Record the limits of the analysis as well as how the limits were established in the project assumptions document.

Document the results of analyzing the existing access and the proposed access point revision at all affected locations within the limits of the study area, such as weave, merge, diverge, ramp terminals, accident sites, and HOV lanes; along the affected section of freeway main line and ramps; and on the affected local roadway system. In the report, highlight the following:

- Any location for which there is a significant adverse impact on the operation or safety of the freeway facility, such as causing a reduction of the operational efficiency of a merge condition at an existing ramp; introducing a weave; or significantly reducing the level of service on the main line due to additional travel demand. Note what will be done to mitigate this adverse impact.
- Any location where a congestion point will be improved or eliminated by the proposal, such as proposed auxiliary lanes or collector-distributor roads for weave sections.
- Any local roadway network conditions that will affect traffic entering or exiting the freeway. If entering traffic is to be metered, explain the effect on the connecting local system (for example, vehicle storage).
- When the existing local and freeway network does not meet the desired level of service, show how the proposal will improve the level of service or keep it from becoming worse than the no-build condition in the year of opening and the design year.

(b) ***Accident Analysis.*** The Accident Analysis identifies areas where there may be a safety concern. The study limits are the same as for operational analyses.

Identify and document all safety program (I2) locations. Identify and document accident histories, rates, and types for the freeway section and the adjacent affected local surface system. Project the rates that will result from traffic flow and geometric conditions imposed by the proposed access point revision. Document the basis for all assumptions.

Demonstrate (1) that the proposal does not have a significant adverse impact on the safety of the freeway or the adjacent affected local surface system, or (2) that the impacts will be mitigated. The safety analysis for both existing and proposed conditions should include the following:

1. Type of Accidents
   - What types of accidents are occurring (overturns, rear-ends, enter-at-angle, hitting fixed object)?
   - What types of accidents are most prevalent?
   - Are there any patterns of accident type or cause?
2. Severity of Accidents (fatalities, disabling, evident injuries, property damage)
3. Accident Rates and Numbers
   - Document the number and rate of accidents within the study limits for existing and proposed conditions.
   - What are the existing and anticipated crash/serious injury/fatality rates and numbers by proximity to the interchange exit and entrance ramps?
   - How do these rates compare to similar corridors or interchanges?

- How do these rates compare to the future rates and numbers?
- What are the existing and anticipated crash/serious injury/fatality rates and numbers for the impacted adjacent and parallel road system (with and without the access revision)?

4. Contributing Factors and Conclusions
   - Document contributing causes of accidents and conclusions. What are the most prevalent causes?
   - Evaluate and document the existing and proposed roadway conditions for geometric design standards, stopping sight distance and other possible contributing factors. Would the proposal reduce the frequency and severity of accidents?

(4) Policy Point 4: Access Connections and Design

Will the proposal provide fully directional interchanges connected to public streets or roads, spaced appropriately, and designed to full design level geometric control criteria?

Wherever possible, provide for all directions of traffic movement. The intent is to provide full movement at all interchanges, whenever possible. Partial interchanges are discouraged. Less than fully directional interchanges for special-purpose access for transit vehicles, for HOVs, or to or from park-and-ride lots, will be considered on a case-by-case basis.

A proposed new or revised interchange access must connect to a public freeway, road, or street and be endorsed by the local governmental agency or tribal government having jurisdiction over said public freeway, road, or street.

Explain how the proposed access point relates to present and future proposed interchange configurations and the *Design Manual* spacing criteria. Note that urban and rural interchange spacing for crossroads also includes additional spacing requirements between the noses of adjacent ramps, as noted in Chapter 940.

Develop the proposal in sufficient detail to conduct a design and operational analysis. Include the number of lanes, horizontal and vertical curvature, lateral clearance, lane width, shoulder width, weaving distance, ramp taper, interchange spacing, and all traffic movements. This information is presented as a sketch or a more complex layout, depending on the complexity of the proposal.

The status of all known or anticipated project deviations must be noted in this policy point, as described in Chapter 330.

(5) Policy Point 5: Land Use and Transportation Plans

Is the proposed access point revision compatible with all land use and transportation plans for the area?

Show that the proposal is consistent with local and regional land use and transportation plans. Before final approval, all requests for access point revisions must be consistent with the metropolitan and/or statewide transportation plan, as appropriate. (See Chapter 120.) The proposed access point revision will affect adjacent land use and, conversely, land use will affect the travel demand generated. Therefore, reference and show compatibility with the land use plans, zoning controls, and transportation ordinances in the affected area.

Explain the consistency of the proposed access point revision with the plans and studies, the applicable provisions of 23 CFR Part 450, and the applicable transportation conformity requirements of 40 CFR Parts 51 and 93.

If the proposed access is not specifically referenced in the transportation plans, define its consistency with the plans and indicate the process for the responsible planning agency to incorporate the project. In

urbanized areas, the plan refinement must be adopted by the metropolitan planning organization (MPO) before the project is designed. The action must also be consistent with the *State Transportation Plan*.

(6) Policy Point 6: Future Interchanges

Is the proposed access point revision compatible *with a comprehensive network plan? Is the proposal compatible with other known new access points and known revisions to existing points?*

The report must demonstrate that the proposed access point revision is compatible with other known new access points and known revisions to existing points.

Reference and summarize any comprehensive freeway network study, plan refinement study, or traffic circulation study.

Explain the consistency of the proposed access point revision with those studies.

(7) Policy Point 7: Coordination

Are all coordinating projects and actions programmed and funded?

When the request for an access point revision is generated by new or expanded development, demonstrate appropriate coordination between the development and the changes to the transportation system.

Show that the proposal includes a commitment to complete the other noninterchange/nonintersection improvements that are necessary for the interchange/intersection to function as proposed. For example, if the local circulation system is necessary for the proposal to operate, it must be in place before new ramps are opened to traffic. If future reconstruction is part of the mitigation for design year level of service, the reconstruction projects must be in the *State Highway System Plan*.

All elements for improvements are encouraged to include a fiscal commitment and an anticipated time for completion. If the project is to be constructed in phases, it must be demonstrated in Policy Point 3 that each phase can function independently and does not affect the safety and operational efficiency of the freeway. Note the known funding sources, the projected funding sources, and the estimated time of completion for each project phase.

(8) Policy Point 8: Environmental Processes

What is the status of the proposal's environmental processes? This section should be something more than just a status report of the environmental process; it should be a brief summary of the environmental process.

All requests for access point revisions on freeways must contain information on the status of the environmental approval and permitting processes.

The following are just a few examples of environmental status information that may apply:

- Have the environmental documents been approved? If not, when is the anticipated approval date?
- What applicable permits and approvals have been obtained and/or are pending?
- Are there hearings still to be held?
- Is the environmental process waiting for an engineering and operational acceptability decision?

1425.06 Documentation

A list of documents that are to be preserved in the Design Documentation Package (DDP) or the Project File (PF) can be found on the following web site:

http://www.wsdot.wa.gov/EESC/Design/projectdev/


I-5 to City Center
Access Study – Phase 1
State Ave
BNSF RR
Interstate 5
4th St.
Interchange
SR 529
Half Interchange

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Department of Corrections Community Work Crew Contract Renewal	AGENDA SECTION:
PREPARED BY: Jim Ballew – Director of Parks and Recreation	AGENDA NUMBER:
ATTACHMENTS: DOC Community Work Crew Contract Schedule A	APPROVED BY: J. Ballew MAYOR / CAO
BUDGET CODE:00105380 549000	AMOUNT:

Summary

The Parks and Recreation Department have contracted with the Department of Corrections Community Service program for eight consecutive years. The Department of Correction provides a fully supervised and equipped maintenance crew that assists in Parks Maintenance activities. The crew is scheduled by the Parks staff on average of twice per month during the spring and summer and utilized for special projects when needed.

Funds have been budgeted this year for limited assistance.

Recommended Action:

Staff recommends the City Council authorize the Mayor to sign the Community Work Crew Contract # CDCI 4592 with the Department of Corrections. The contract period is effective July 1, 2007 through June 30, 2008.

State of Washington
Department of Corrections
Northwest Region Business Office
PO Box 888 • Monroe, Washington 98272-0888
(360) 794-2881 • FAX (360) 794-2302

Community Work Crew
Work Project Description

- **Contract number:** CDCI 4592
- **Institution:** Monroe Correctional Complex
- **Contractor:** City of Marysville
- **Project Period:** July 1, 2007 – June 30, 2008
- **Project Description:** DOC will provide inmate work crews to do general labor for the contractor. Labor to include brush clearing, trail maintenance, litter clean-up, "grounds" work (i.e. mowing, weeding, sweeping, trimming, raking, etc.), cutting up logs, ditch digging, demolition work, brush removal/hauling/dumping, etc. DOC will provide all necessary tools and equipment required to complete the project requirements.
- **Payment Terms:** In consideration of the services provided by DOC, the parties to this contract agree to reimburse DOC for the following costs:

  A. Inmate crew wages of $1.10 per hour per inmate.
  B. Vehicle operating costs at the prevailing state rate. The current rate is $0.485 per mile,
  C. Workers compensation of $0.2380 per hour worked per inmate.
  D. Standard fee of 50% of the inmate labor, mileage and workers compensation totals. This fee is for the use, repair and maintenance of DOC supplied tools and equipment used on the projects.

  DOC shall bill the Contractor by the 10th of each month.
  Payment shall be due to DOC within 30 calendar days from date of invoice.

- **Additional Terms and Conditions:**

  A. <u>No public employees will be displaced as a result of this contract.</u>
  B. Offender work crews will consist of no more than 10 offenders.
  C. DOC shall provide one correctional officer to supervise the crew.
  D. DOC will maintain a log of hours worked by offender crews.
  E. All DOC and MCC Policies will be adhered to, including non-smoking and unauthorized literature. Any observed violations must be reported to the assigned correctional staff immediately.

Contractor:

_____
DATE

_____
Please Print Name and Title

Department of Corrections:

_____
DATE
Ken Quinn, Superintendent MCC

*"Working Together for **Safe** Communities"*

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Contract Award: Edward Springs 327 Zone Reservoir Project to CBI Services, Inc.	AGENDA SECTION: Contract Award
PREPARED BY: David Zull, Project Manager	AGENDA NUMBER:
ATTACHMENTS: Certified Bid Tabulation Location Map	APPROVED BY: MAYOR CAO
BUDGET CODE: 40220594.563000 W0504	AMOUNT: $1,450,000.00

On April 26, 2007, bids were opened for the Edward Springs 327 Zone Reservoir project. Three (3) bids were received with a low of $1,391,946.50 to a high of $1,638,661.40. The Engineer's estimate was $1,146,845.00. The low bidder was CBI Services, Inc. located in Everett. References have been checked and found to be satisfactory.

The low bid is 21% above the engineer's estimate. The reason given for the high bids is that the cost for labor on this type of work has gone sky high within the last few months. This project is really needed to help increase the pressures for our customers in this service area and staff does not believe rebidding the project will help reduce the costs by much if any. Rebidding runs the risk of getting even higher bids. Therefore, staff recommends that the project contract be awarded to CBI Services, Inc.

Contract Bid (Includes Sales Tax):	$1,391,946.50
Management Reserve:	$ 58,053.50
Total:	$1,450,000.00

RECOMMENDED ACTION:

Public Works Staff recommends the City Council authorize the Mayor to award the bid for the Edward Springs 327 Zone Reservoir project to CBI Services, Inc. in the amount of $1,391,946.50 including Washington State Sales Tax, and approve a management reserve of $58,053.50 for a total allocation of $1,450,000.00.

COUNCIL ACTION:

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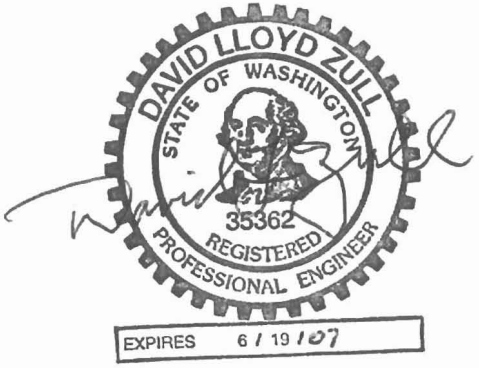
BID TABULATION
EDWARD SPRINGS 327 ZONE RESERVOIR
BID OPENING: April 26 at 10:00 am

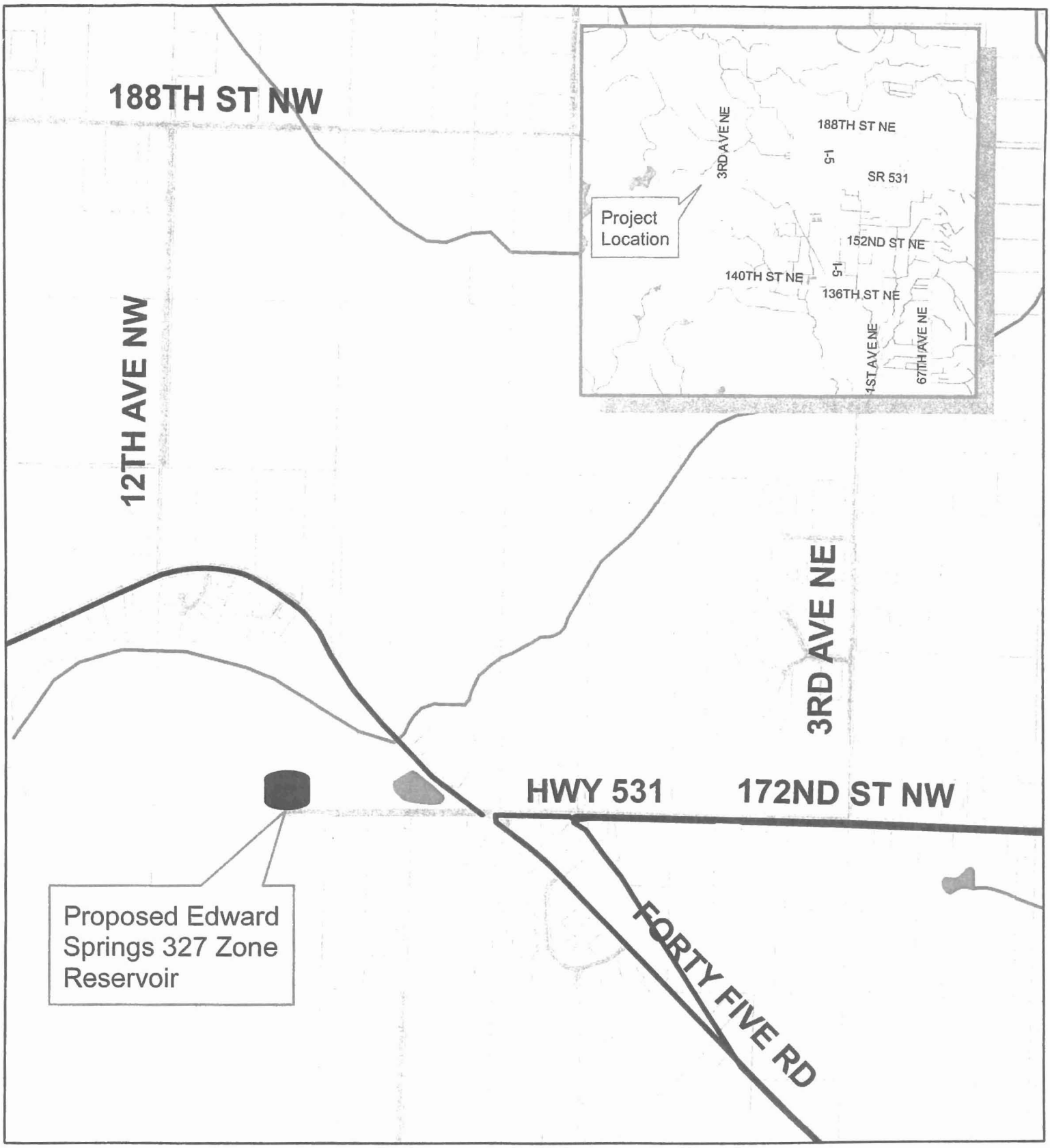
Prepared by: David L Zull, PE
Date: April 26, 2007

				Engineer's Estimate		CBI		T BAILEY, INC		LARRY BROWN CONST.	
Item	Description	Quatity	Units	Unit Prices	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
1	Mobilization and Demobilization	1	LS	$75,000.00	$75,000.00	$75,000.00	$75,000.00	$10,000.00	$10,000.00	$95,000.00	$95,000.00
2	Excavation Safety Systems	1	LS	$10,000.00	$10,000.00	$650.00	$650.00	$4,000.00	$4,000.00	$575.00	$575.00
3	Earthwork	1	LS	$35,000.00	$35,000.00	$75,000.00	$75,000.00	$145,000.00	$145,000.00	$94,560.00	$94,560.00
4	Foundation Gravel	400	CY	$30.00	$12,000.00	$50.00	$20,000.00	$40.00	$16,000.00	$45.00	$18,000.00
5	Imported Backfill	200	CY	$20.00	$4,000.00	$35.00	$7,000.00	$40.00	$8,000.00	$35.10	$7,020.00
6	Drain Rock	150	TON	$30.00	$4,500.00	$30.00	$4,500.00	$40.00	$6,000.00	$35.90	$5,385.00 *
7	Unsuitable Excavation	100	CY	$25.00	$2,500.00	$20.00	$2,000.00	$50.00	$5,000.00	$33.75	$3,375.00
8	Temporary Erosion Control/Spill Pre	1	LS	$10,000.00	$10,000.00	$15,000.00	$15,000.00	$25,000.00	$25,000.00	$10,137.00	$10,137.00
9	Site Piping	1	LS	$200,000.00	$200,000.00	$225,000.00	$225,000.00	$360,000.00	$360,000.00	$295,253.00	$295,253.00
10	Surfacing Restoration	1	LS	$40,000.00	$40,000.00	$30,000.00	$30,000.00	$25,000.00	$25,000.00	$42,797.00	$42,797.00
11	Fencing	1	LS	$30,000.00	$30,000.00	$15,000.00	$15,000.00	$12,000.00	$12,000.00	$13,130.00	$13,130.00
12	Landscaping	1	LS	$30,000.00	$30,000.00	$30,000.00	$30,000.00	$40,000.00	$40,000.00	$25,000.00	$25,000.00
13	Control density Fill	100	CY	$100.00	$10,000.00	$150.00	$15,000.00	$110.00	$11,000.00	$100.00	$10,000.00
14	Painting	1	LS	$95,000.00	$95,000.00	$75,000.00	$75,000.00	$61,000.00	$61,000.00	$82,000.00	$82,000.00
15	0.68-Million Gallon Reservoir / Found	1	LS	$400,000.00	$400,000.00	$590,000.00	$590,000.00	$650,000.00	$650,000.00	$723,680.00	$723,680.00
16	Connection to existing system	3	EA	$2,000.00	$6,000.00	$1,250.00	$3,750.00	$5,000.00	$15,000.00	$1,125.00	$3,375.00
17	Electrical	1	LS	$93,000.00	$93,000.00	$100,000.00	$100,000.00	$90,000.00	$90,000.00	$81,000.00	$81,000.00
	Subtotal Amount				$1,057,000.00		$1,282,900.00		$1,483,000.00		$1,510,287.00 *
	States Sales Tax at 8.5%				$89,845.00		$109,046.50		$126,055.00		$128,374.40 *
	TOTAL				$1,146,845.00		$1,391,946.50		$1,609,055.00		$1,638,661.40 *

* Notes an error in calculation

We hereby certify that this bid tabulation represents all bids received and that all calculations have been checked and are correct.





CITY OF Marysville WASHINGTON

Proposed Edward Springs 327 Zone Reservoir

N

Transmission Mains

0 1,000 2,000 Feet

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Public Hearing – Ordinance 2691 establishing a moratorium on the filing and receipt of applications within the Smokey Point subarea which include the 20% residential component from Ordinance No. 2487.	AGENDA SECTION:
PREPARED BY: Gloria Hirashima, Community Development Director	AGENDA NUMBER:
ATTACHMENTS: 1. Ordinance 2659	APPROVED BY: MAYOR / CAO
BUDGET CODE:	AMOUNT:

The City Council passed Ordinance 2691 on March 19, 2007 establishing a moratorium on the filing and receipt of applications within the Smokey Point subarea which include the 20% residential component as referenced in Section III of Appendix "A" to Ordinance No. 2487. The ordinance and state law provides that a hearing would be held no later than sixty days after the effective date of the ordinance. This provides an opportunity for the public to provide input on the moratorium and its effect.

The moratorium was established for a maximum of six months unless earlier appealed. The Planning Commission is currently considering a formal comprehensive plan amendment to repeal the allowance for 20% residential components within master plans filed in the Smokey Point subarea plan boundary established by Ordinance 2487.

The comprehensive plan amendments will be subject to public hearings and a recommendation will be forwarded to City Council. Council should receive the proposed amendments for action by July, 2007.

RECOMMENDED ACTION: Staff recommends that Council take public testimony on Ordinance 2691.
COUNCIL ACTION:

cc: Com Dev
Code Pub
MRSC
orig: file

CITY OF MARYSVILLE

ORDINANCE NO. 2691

AN ORDINANCE OF THE CITY OF MARYSVILLE, WASHINGTON, ESTABLISHING A MORATORIUM ON THE FILING AND RECEIPT OF APPLICATIONS WITHIN THE SMOKEY POINT SUBAREA WHICH INCLUDE THE 20% RESIDENTIAL COMPONENT AS REFERENCED IN SECTION III OF APPENDIX "A" TO ORDINANCE NO. 2487, PROVIDING FOR SEVERABILITY, DECLARING AN EMERGENCY, AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, pursuant to the State Growth Management Act, Ch. 36.70A RCW, and the State Subdivision Act, Ch. 58.17 RCW, the City of Marysville has adopted a Comprehensive Plan and associated zoning, subdivision and development regulations, which are set forth in Titles 19 and 20 of the Marysville Municipal Code, respectively; and

WHEREAS, on August 25, 2003 the Marysville City Council adopted Ordinance No. 2487 amending Ordinance 2068 relating to the Marysville Growth Management Comprehensive Plan; and

WHEREAS, Section III of Ordinance No. 2487 provided for the adoption of development regulations applying to the Smokey Point Subarea Plan, said Development Regulations being attached as Appendix A; and

WHEREAS, Section III of said Appendix A Development Regulations relating to permitted uses and standards allows for projects exceeding sixty acres to submit a master site plan for mixed uses – a mix of commercial and residential uses, including areas where twenty percent of the gross site area may be utilized for residential uses and infrastructure; and

WHEREAS, the Marysville City Council finds that the Smokey Point Subarea is not suitable for residential uses and that a mix of residential uses with commercial development would create inconsistencies and conflicts with the City's long term plans and vision for the Smokey Point Subarea; and

WHEREAS, applications for master site plans utilizing the development regulations of Section III of Appendix A to Ordinance No. 2487 have not resulted in the desired mix of uses for the Smokey Point Subarea; and

WHEREAS, the City Council finds that additional time is necessary to carefully consider and adopt the appropriate regulation(s) that will avoid the above

described results caused by the City's development regulations in Section III of Appendix A to Ordinance 2487; and

WHEREAS, RCW 35.63.200 and RCW 36.70A.390 authorize the Council to enact moratoria on land use matters to preserve the status quo while new plans or development standards and regulations are considered and prepared; and

WHEREAS, absent the adoption of a moratorium, further detached single family residential development without the associated commercial or industrial mix may occur in the Smokey Point Subarea to the further detriment of the City, which may result in undesirable effects as described above; and,

WHEREAS, the City Council finds that protection of the public health, safety, and welfare supports the adoption of a moratorium on applications for certain types of Master Site Plan developments which utilize the 20% Residential Component in Appendix A to Ordinance 2487; and,

WHEREAS, the City Council also desires to insure adequate time to conduct research on appropriate regulations and adequate time to receive public input on proposed revisions to the Smokey Point Subarea Plan Component of the Comprehensive Plan; and,

WHEREAS, the City desires to preserve the status quo for the protection of health, safety and welfare of the City residents, as it relates to development in the Smokey Point Subarea until these matters are more fully considered;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Findings of Fact. The above "Whereas" paragraphs are hereby adopted by reference as the City Council's Findings of Fact, as if fully set forth herein.

Section 2. Moratorium Established. A moratorium is hereby established upon the filing and receipt of any master site plan, permit application or development plan application which includes any component of residential development referenced in Section III of Appendix A to Ordinance 2487 relating to master site plans for projects exceeding sixty acres for mixed uses – a mix of commercial and residential uses, including areas where twenty percent of the gross site area may be utilized for residential uses and infrastructure. Provided, however, master site plan applications which do not contain residential uses and infrastructure shall not be subject to this moratorium ordinance.

No such new permit, master site plan or development plan application as described in the preceding paragraph shall be accepted during the effective period of this moratorium; provided, however, that this moratorium shall not affect

vested rights, if any, applicable to any such previously submitted and fully completed applications.

Section 3. Emergency declared and Effective Date/Period of Moratorium. This Ordinance and the moratorium is a public emergency measure necessary for the protection of the public health, safety, and welfare and shall be effective immediately upon adoption and shall continue in effect for six months from the date of adoption, unless earlier repealed, renewed or modified by the City Council as provided by state law.

Section 4. Public Hearing to be Held. A public hearing on the issue of the moratorium shall be held no later than sixty (60) days after the effective date herein.

Section 5. Work Plan. In order for the moratorium established herein to be effective for up to one year from the date of adoption, the City shall allocate the necessary staffing resources to prepare a work plan to address the issues in this Ordinance, and the City shall implement such a work plan which shall include a Comprehensive Plan docket revision which shall come before the Marysville Planning Commission in due course with other matters docketed for Comprehensive Plan revisions in 2007.

Section 6. Severability. If any section, subsection, paragraph, sentence, clause or phrase of this Ordinance or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this Ordinance be pre-empted by state or federal law or regulation, such a decision or pre-emption shall not affect the validity or constitutionality of the remaining portions of this Ordinance or its application to any other persons or circumstances.

Passed by the City Council of the City of Marysville, Washington, on this 19th day of March, 2007.

CITY OF MARYSVILLE

Dennis L Kendall

MAYOR, DENNIS KENDALL

Attest:

Julie Lein

City Clerk (Deputy

Approved as to form:

Grant K. Weed

City Attorney

EFFECTIVE DATE: March 19, 2007

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Strawberry Festival Master Permit/Agreement and 2007 Festival Proposal	AGENDA SECTION:
PREPARED BY: Jim Ballew – Director of Parks and Recreation	AGENDA NUMBER:
ATTACHMENTS: 2007 Festival Proposal Master Permit Agreement	APPROVED BY: J. Ballew MAYOR CAO
BUDGET CODE:	AMOUNT:

Summary:

Maryfest Incorporated has submitted its 2007 Festival Proposal for City Council consideration. The 2007 Proposal was presented to the staff on April 23, 2007 for review. Recommendations from the staff review have been incorporated in the attached 2007 Proposal.

The attached Strawberry Festival Master Permit/Agreement has been created to identify operating requirements during the festival period between the City and Maryfest Incorporated.

Recommended Action:

Staff recommends the City Council authorize the Mayor to sign the Strawberry Festival Master Permit/Agreement with Maryfest Incorporated, in accordance with the 2007 Strawberry Festival Proposal.

Maryfest, Inc.
PO Box 855
Marysville, WA 98270

(PH) 360-659-7664
www.maryfest.com

2007 Strawberry Festival Permit Proposal

Prepared for: City of Marysville

Prepared by: Maryfest, Inc.

Description

Please find attached the Permit Proposal for the 2007 Strawberry Festival. We are looking forward to working with the City again this year to put on the festival.

TABLE OF CONTENTS

ORGANIZATION

History

Strawberry Festival has been a Marysville tradition since 1932. In 1974 Maryfest, Inc. the sponsoring organization for the Marysville Strawberry Festival, was formed. The Primary purpose of Maryfest is to promote the Strawberry Festival and the City of Marysville throughout the Pacific Northwest, Oregon and Canada. This has been and continues to be accomplished though the annual festival and the travel of the festival float and its representatives. Maryfest Inc. is a 501(c)4 nonprofit organization.

Mission Statement

To be friendly and helpful when representing the Strawberry Festival. To promote the Strawberry Festival, the City of Marysville and it's businesses.

Legal Structure

Management of the Corporation, Maryfest, Inc., is vested in the Board of Directors, consisting of fifteen (15) members. The Executive Board and Officers include the President, Vice President, Vice President Elect, Secretary and Treasurer. Officers, Board Member, Event Directors and Committee Members are all non-paid volunteers residing in the city of Marysville and surrounding area.

Membership and Funding

Members of Maryfest, Inc. shall be individual, co-partnerships, corporations, associations and firms of every type and description that shall be interested in promoting Marysville. Membership fees are approved by the Board of Directors.

Some funding for the Strawberry Festival is acquired by sponsorships, donations and grants. With one of the grants applied for being the City Hotel/Motel Tax.

ORGANIZATION

Insurance

Insurance coverage for Maryfest, Inc. and for all Strawberry Festival events is provided through Capitol Indemnity Corp., North Bend, IN which is currently A Rated.

The local insurance agency for Maryfest, Inc. is Marysville-Anderson Insurance Agency located at 901 State Avenue, Marysville, WA 98270. Their phone number is (360) 653-0900.

The City of Marysville and the Marysville School District #25 are named as additional insured in the liability policy of $1 million per occurrence and $2 million aggregated per event during the Strawberry Festival. A certificate of insurance is required for all motorized units, equestrian units and food vendors with the City of Marysville, the Marysville School District #25, Maryfest, Inc. and their employees and volunteers named as additional insured. Biringer Farm hosts the "Pig Out on the Farm" and is listed as a festival event and carries their own insurance naming Maryfest, Inc., the City of Marysville and the Marysville School District #25 as additional insured. Biringer Farm is not within the boundaries of franchise but has been approved by Maryfest, Inc.

Our policy renews on April 10th and a copy will be provided.

Advertising

Some of the advertising we are planning includes radio (KMPS) and television (TV-3 & possibly a major Seattle channel). As for print advertising the Globe will again be producing our Official Guide (mailed to all Marysville Residents), ads will be placed in The Herald and Seattle Times, and we will again have counter cards and posters (targeted to be distributed by May 15th).

Our major sponsors our the Tulalip Tribes, Roy Robinson and North County Bank. We are still in the process of getting sponsors. All sponsors will be posted on the festival website.

ORGANIZATION

Bleachers

Remote controlled hydraulic bleachers have been purchased. The bleachers are 45 feet long, portable, and take 15 minutes to set up and take down. The bleachers will be used at the Trike Race Time Trails, Trike Race, Parades, Poochapalooza and any other event where they are needed.

Portable Restroom Placement

Portable Restrooms are provided by: NW Cascade Honey Bucket (800-562-4442). They will be placed at the following locations:

1	Duce Accounting (80th & State)
2	School District Bus Barn (4220 80th St NE) (1 at 80th and 1 at 78th Outside the Fence)
1	E&E Lumber Outside the Fence(1364 State Ave)
1	Parking Lot West of Kings Buffett (1330 State Ave)
1	Buzz Inn Tavern (Grove & State)
1	State St. FoodMart North of Barricade under sign (10th & State)
1	Behind Bleachers (5th & State)
2	Schuck's Parking Lot (4th & State)
1	Charlie's Ribs (1525 3rd St)
2	Public Works Outside the Fence (80 Columbia)
4	7th & State (School Side)
1	3rd & Alder in the SW Corner
2	Safeway Parking Lot (1 North & 1 South End)
14	At The Market

Evacuation Plans

PARADE: The Parade is currently working with the Marysville Police Department to come up with an Evacuation Plan.

MARKET: 1. Three (3) of four (4) gates are always opened during market hours. In case of Emergency and evacuation gate #4 (located at back of field on Quinn) will be opened immediately. 2. Market crew will terminate all electrical power at main box (North end of Asbery Field) if necessary. 3. Market Committee has Certified Red Cross First Re sponder on site. 4. Two (2) fire extinguishers are located at Market Office (motor home at main gate on Alder). 5. In case of severe lightning storm, once field is evacuated all gates will be closed and no one will be allowed into the field until weather permits. 6. Please see attached map given to each vendor in welcome packet for emergency exits. See map on page 24.

ORGANIZATION

Personnel

As all the Board Members and Officers are non-paid volunteers the festival office, located in the Red Caboose on the corner of 4th and Cedar, is not regularly staffed. However, we are planning to have a volunteer at the office on a regular basis.

**** Board Member and Officer Phone Numbers and address listed are for official use only.* ***This information is not to be given to the public****, as some of these numbers are unlisted.*

President
Darrell Wigdahl (Denise)
PO Box 1898
Marysville, WA 98270
Hm: 360-653-9257
Wk:
Cell: 425-330-9503
darrellw@gte.net

Vice President
Judy Anderson (Richard)
6909 54th Pl NE
Marysville, WA 98270
Hm: 360-651-2982
Wk: 425-308-1019
Cell: 425-308-1019
healinghands_30@hotmail.com

Vice President - Elect
Bobbi Young
3715 152nd St NE #13
Marysville, WA 98271
Hm: 360-659-3933
Wk:
Cell: 425-210-5210
bobbis45@verizon.net

Secretary
Angie Miller
6110 64th St NE #J204
Marysville, WA 98270
Hm: 425-232-0274
Wk:
Cell: 425-232-0274
dariennangie@yahoo.com

Treasurer
Nancy Bell (Jack)
PO Box 203
Marysville, WA 98270
Hm: 360-652-6380
Wk:
Cell: 425-344-6380
le.belle@verizon.net

Quincy Bontrager
6912 54th Pl NE
Marysville, WA 98270
Hm: 360-651-9065
Wk:
Cell: 425-737-6521
qcbontrager@comcast.net

Leslie Buell (Doug)
4329 94th Pl NE
Marysville, WA 98270
Hm: 360-651-0633
Wk: 360-659-1300
Cell: 425-268-5285
leslieb@marysvilleglobe.com

Deanne Evans
4429 130th Pl NE
Marysville, WA 98270
Hm: 360-658-5896
Wk: 360-659-1522 x3
Cell:
deanneatthecompetition@yahoo.com

Linda Farrington
9026 60th Dr NE
Marysville, WA 98270
Hm: 360-658-4507
Wk:
Cell: 425-923-4519
befitminded@aol.com

Mike Fee
6223 93rd St NE
Marysville, WA 98270
Hm: 360-653-5994
Wk:
Cell: 425-501-1871

Jodi Hiatt (John)
1220 2nd Street
Marysville, WA 98270
Hm: 360-659-7387
Wk: 360-659-4706
Cell: 425-239-2302
MECTILE@aol.com

Jane James (Glen)
6703 50th Pl NE
Marysville, WA 98270
Hm: 360-659-8423
Wk: 425-316-5102
Cell: 425-870-7191
hblabfrontdesk@verizon.net

Carol Kapua (Vaughn)
5930 74th St NE
Marysville, WA 98270
Hm: 360-659-6086
Wk:
Cell: 425-387-1135
carolkapua@hotmail.com

Barbara McNair (Charlie)
8724 44th Dr NE
Marysville, WA
Hm: 360-653-1309
Wk:
Cell: 425-210-3829
mmcdash@aol.com

Kim Mease (Shamus)
8925 59th Dr NE
Marysville, WA 98270
Hm:
Wk: 360-651-5216
Cell: 425-870-2928
bashfuln322@yahoo.com

ORGANIZATION

2006 Traveling Float Schedule

April 21st, 2007	Daffodil Festival	(Tacoma / Puyallup / Sumner / Orting, WA)
May 5th, 2007	Apple Blossom Festival	(Wenatchee, WA)
May 6th, 2007	Loyalty Day Parade	(Long Beach, WA)
May 12th, 2007	Irrigation Festival	(Sequim, WA)
May 19th, 2007	Rhododendron Festival	(Port Townsend, WA)
May 26th, 2007	Hyack Festival	(New Westminster, BC)
June 2rd, 2007	Starlight Parade	(Portland, OR)
June 16th, 2007	Strawberry Festival	(Marysville, WA)
June 30th, 2007	Fathoms O'Fun	(Port Orchard, WA)
	Founders Days	(Cashmere, WA)
July 1st, 2007	Cherry Fiesta	(Osoyoos, BC)
July 4th, 2007	Logger Days	(Sedro Woolley, WA)
July ???, 2007	Sultan Shindig	(Sultan, WA)
July 13th, 2007	Chataqua Parade	(Chewelah, WA)
July 15th, 2007	Cornucopia Days	(Kent, WA)
July 15th, 2007	Chinatown	(International District, Seattle, WA)
July 21st, 2007	Capital Lake Fair	(Olympia, WA)
July 21st, 2007	Hi-Yu Festival	(West Seattle, WA)
July 28th, 2007	Seafair	(Seattle, WA)
Aug. 4th, 2007	Summer Celebration	(Lake City, WA)
Aug. 11th, 2007	Astoria Regatta	(Astoria, OR)
Aug. 25th, 2007	Family Festival	(Federal Way, WA)
Sept. 29th, 2007	Autumn Leaf Festival	(Leavenworth, WA)
Oct. 76h, 2007	Salmon Days Festival	(Issaquah, WA)
Dec. 1st, 2007	Merrysville for the Holiday	(Marysville, WA)
Dec. 27th, 2007	Pacific Life Holiday Bowl	(San Diego, CA)

www.maryfest.com

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EVENTS BY DAY

Friday, June 8th, 2007

7:00 AM — 1:00 PM	Scholarship Golf Tournament (Cedarcrest Golf Course)

Saturday, June 9th, 2007

10:00 AM — 5:00 PM	Poochapalooza (Asbery Field)

Tuesday, June 12th, 2007

12:00 PM — 2:00 PM	Fashion Show (Leifer Manor)

Wednesday, June 13th, 2007

7:00 PM — 10:00 PM	Adult Trike Race Time Trials (Waterfront Park)

Thursday, June 14th, 2007

6:00 PM — 9:00 PM	Talent Show (MPHS Auditorium)
TBD — 10:00 PM	Carnival (MMS Play Field)

Friday, June 15th, 2007

11:30 AM — 9:00 PM	Market (Asbery Field)
4:30 PM — 9:00 PM	Entertainment (Asbery Field)
TBD — 11:00 PM	Carnival (MMS Play Field)
7:00 PM — 10:00 PM	Adult Trike Race (Waterfront Park)

Saturday, June 16th, 2007

8:30 AM — 10:00 AM	Berry Run (Smokey Point Plant Farm)
10:00 AM — 11:00 AM	Rose Planting Ceremony (Red Caboose)
10:00 AM — 5:00 PM	Pig Out on the Farm (Biringer Farm)
TBD — 12:00 PM	Carnival (MMS Play Field)
10:00 AM — 8:00 PM	Market (Asbery Field)
10:00 AM — 8:00 PM	Entertainment (Asbery Field)
10:00 AM — 5:00 PM	Car Show (Asbery Field)
10:00 AM — 4:00 PM	Motorcycle Show (MJHS & 7th Street)
1:00 PM — 3:00 PM	Strawberry Shortcake Eating Contest (Asbery Field)
6:00 PM — 7:00 PM	Kiddies Parade (State Ave.)
7:30 PM — 10:00 PM	Grand Parade (State Ave.)
10:00 PM — 10:30 PM	Fireworks (Public Works)

Sunday, June 17th, 2007

10:00 AM — 5:00 PM	Pig Out on the Farm (Biringer Farm)
TBD — 5:00 PM	Carnival (MMS Play Field)
10:00 AM — 5:00 PM	Market (Asbery Field)
11:00 PM — 5:00 PM	Entertainment (Asbery Field)

Open Time of Carnival is weather permitting.

www.maryfest.com

EVENT DETAILS

All calls should be directed to the Festival Office at 360-659-7664 or to the web-site at www.maryfest.com. The phone numbers listed are for emergency use only.

Adult Trike Race
Date: Wednesday, June 13th, 2007 at 7:00 PM TIME TRIALS
Friday, June 14th, 2007 at 7:00 PM
Location: Waterfront Park
Contact: Marysville Rotary, Chris Nation (PH) 360-658-9195
Got JELLO? Watch as adults race through a difficult and messy obstacle course. All proceeds from this event go to Marysville Rotary Literacy Fund.

Berry Run / Walk
Date: Saturday, June 16th, 2007 at 8:30 AM
Location: Smokey Point Plant Farm
Contact: Judy Anderson (PH) 425-308-1019
No matter if you enjoy running or walking this event has something for you. You pick either the 1 mile course or the 5k run, either way this fun run helps to raise money for Grace Academy Track Team.

Car Show
Date: Saturday, June 16th, 2007 from 10:00 AM — 5:00 PM
Location: Asbery Field
Contact: Emerald City Car Club, Paul Lind (PH) 425-316-8423
You might hear a strange rumble coming from Asbery Field, but don't worry that's just the sound of these beautiful Cars. From Classic to Custom there is something for everyone!

Fashion Show
Date: Tuesday, June 12th, 2007 at 12:00 PM
Location: Leifer Manor
Contact: Linda Farrington (PH) 360-653-8455
Watch as local models showcase summer fashion from local retail stores. Fashions are for young and old, men and women. So reserve a seat or a table and enjoy your lunch while checking out what's "HOT" for the summer.

EVENT DETAILS

Funtastic Carnival
Date: Thursday, June 14th, 2007 from TBD to 10:00 PM (out by 11)
Friday, June 15th, 2007 from TBD to 11:00 PM (out by 12)
Saturday, June 16th, 2007 from TBD to 12:00 PM (out by 1)
Sunday, June 17th, 2007 from TBD to 5:00 PM (out by 6)
*****Open times are weather permitting.***
Location: Marysville Middle School Play Field
Insurance Carried: 5 Million Total (Contract attached see pg. 25)
Contact: Funtastic, Rob Rhew, (PH) 503-761-0989
Come play the games, ride the rides and enjoy all the yummy carnival food. With lots to choose from Funtastic makes this carnival one everyone can enjoy!

Golf Tournament
Date: Friday, June 8th, 2007 at 7:00 AM
Location: Cedarcrest Golf Course
Contact: Angie Miller (PH) 425-232-0274
FOUR! Watch as teams try to win a car and lots of other prizes as they help raise money for the Strawberry Festival April Friesner Memorial Royalty Scholarship Fund. So grab your clubs and get ready for fun!

Grand Parade
Date: Saturday, June 16th, 2007 at 7:30 PM (Pre-Parade) 7:45 Official Start
Location: State Avenue from 76th Street to 1st Street
Contact: Carol Kapua (PH) 425-387-1135
Sheila Thompson (PH) 360-653-8165
Everyone loves a parade! This years Grand Parade is sure to delight young and old alike. Watch as the marching bands, floats and other entries make their way down State Avenue. Followed by a spectacular fireworks display

Kiddies Parade
Date: Saturday, June 16th, 2007 at 6:00 PM
Location: State Avenue from 7th Street to 5th Street
Contact: Kim Mease (PH) 425-870-2928
Don't let the length of this parade fool you! From costumes to pets to bikes the youngsters in this non-motorized parade just want to have fun.

EVENT DETAILS

The Market
Date: Friday, June 15th, 2007 from 2:30 AM to 9:00 PM
Saturday, June 16th, 2007 from 10:00 AM to 8:00 PM
Sunday, June 17th, 2007 from 10:00 AM to 5:00 PM
Location: Asbery Field
Inspections: Health Dept.
Contact: Jodi Hiatt (PH) 425-239-2302
From Arts and Crafts to Food Vendors the Market has everything. Come walk through the booths or stop for a bite to eat, either way your sure to find something you'll like.

Motorcycle Show
Date: Saturday, June 16th, 2007 from 10:00 AM — 4:00 PM
Location: 7th Street from State to Alder
Contact: ???
If you feel the ground shaking near 7th Street don't worry that's just the sound of these awesome bikes. From Classic to Custom there is something for everyone!

Musical Entertainment
Date: Friday, June 15th, 2007 from 4:30 PM to 9:00 PM
Saturday, June 16th, 2007 from 10:00 AM to 8:00 PM
Sunday, June 17th, 2007 from 11:00 PM to 5:00 PM
Location: Asbery Field
Contact: Angie Miller (PH) 425-232-0274
Judy Anderson (PH) 425-308-1019
From Rockin' Roll to Country and everything in between this years entertainment is sure to have something you'll like. So grab a bite to eat enjoy the groups gracing the stage.

Pig Out on the Farm
Date: Saturday, June 16th, 2007 from 10:00 AM — 5:00 PM
Sunday, June 17th, 2007 from 10:00 AM — 5:00 PM
Location: Biringer Farms
Contact: Diana Biringer (PH) 425-258-2305
A great time to be had by all. There is nothing like the Pig Out for good old-fashioned family fun. Admission and Fishin' are always free.

www.maryfest.com

EVENT DETAILS

Poochapalooza Dog Event
Date: Sunday, June 9th, 2007 from 10:00 AM to 5:00 PM
Location: Asbery Field
Contact: Leslie Buell (PH) 425-268-5285
This kick-off event is just for Dog Lovers, so bring your dogs and head on down. Enjoy many different demonstrations and shows, while perusing a variety of pet-related vendors who cater to canines

Rose Planting Ceremony
Date: Saturday, June 18th, 2007 at 10:00 AM
Location: Red Caboose
Contact: Denise Wigdahl (PH) 360-653-9257
Join us for a ceremony you won't forget, as the Portland Royal Rosarians plant a Rose honoring the festival.

Strawberry Shortcake Eating Contest
Date: Saturday, June 16th, 2007 at 1:00 PM
Location: Asbery Field
Contact: Sandie Phipps (PH) 360-659-6236
We are the messy fun event of Maryfest. Bring your friends and family to cheer you to victory while you devour delicious strawberry shortcake without benefit of utensils or use of your hands! The goal is to eat as much shortcake as possible in a five minute period, so start practicing!

Talent Show
Date: Monday, May 21st, 2007 at 6:00 PM Auditions
Tuesday, May 22nd, 2007 at 6:00 PM Auditions
Thursday, June 14th, 2007 at 6:00 PM
Location: Marysville Pilchuck High School Auditorium
Contact: Marcy Giesler (PH) 360-653-6584
So you want to be a star? From singing to dancing to comedy this show has it all. Watch as children, teens, and adults perform to show you their STAR qualities.

STREET CLOSURES

Thursday, June 14th, 2007

12:00 Noon	*7th St. from Alder to Quinn Ave.*
	***To remain closed until Sunday, June 18th at 6:00 PM*

Friday, June 15th, 2007

8:00 AM	*"No Parking after 4:00 PM Saturday" signs posted with barricades on 2nd St. from Columbia Ave. to Quinn Ave. and at 3rd and Alder (both sides of street)*

Saturday, June 16th, 2007

7:00 AM	*7th St. from State Ave to Quinn St.*
9:00 AM	*North Bound Cedar Ave. from 2nd St. to 4th St.*
NOON	*5th St. from State Ave. to Columbia Ave.*
	5th St. from State Ave. to Delta Ave.
4:00 PM	*2nd St. from Columbia Ave. to Quinn Ave.*
	76th St. from State Ave. to 43rd St.
	6th St. to 9th St. from State Ave. to Delta Ave.
	6th St. to 10th St. from State Ave. to Columbia Ave.
	State Ave. from 80th St. to 4th St.
	Grove Street from 43rd to State
5:00PM	*3rd St. from State Ave. to Alder*
	State Ave. from 4th St. to 3rd St.
6:00 PM	*Alder (43rd) Street from Grove St. to 76th St.*
7:00 PM	*Grove Street from Cedar Ave. to 47th Ave.*
7:30 PM	*4th St. from Cedar to 47th Ave.*

State Ave. to remain closed from Grove St. to 3rd Street until after fireworks (approx. 10:30 PM)

Street closure notices are hand delivered to all residents and businesses on 2nd and 3rd Street.

***Streets should be closed to all traffic with the exception of emergency vehicles and Festival Officials. Special passes will be posted on all Festival vehicles.*

PUBLIC WORKS ASSISTANCE

STREET DEPARTMENT

In addition to the specific events below, street barricades are requested for all festival events requiring Street Closures (please see page 12). Maryfest, Inc. will provide the required signage for posting notice of closure of SR 528, 4th Street and 88th Street Freeway Exits and Ebby Slough Bridge.

Saturday, June 15th, 2007

9:00 AM to End of Event
ROSE PLANTING: Traffic cones will be needed to block of Right lane of North Bound Cedar Avenue.

5:00 PM to End of Event
GRAND PARADE: Please see street closures to determine how many barricades are needed.

WATER DEPARTMENT

Friday, June 15th, 2007

7:00 PM to End of Event
ADULT TRIKE RACE: Use of fire hose and fire hydrant wrench

Also needed:
Sandbags for the Fireworks (Contact: Larry Larsen)

PUBLIC WORKS ASSISTANCE

SANITATION DEPTMENT

Thursday, June 14th, 2007 to Sunday, June 187h, 2007

Dumpsters for Market
4 dumpsters placed on the corner of 7th St. and Alder next to fence.
Service is request once per day in the AM on all dumpsters

Friday, June 15th, 2007

One (1) Dumpster to be delivered to each of the following locations:
North County Bank
Marysville Junior High School at 7th St. and State Ave.
Century 21 Parking Lot at 5th St and State — Close to Sidewalk
Schaefer-Shipman Funeral Home parking lot at 8th St. and State Ave.
Cascade Savings Bank Parking Lot at 9th St. and State Ave.
Frontier Bank Parking Lot at 10th St. and State Ave.
State Avenue Deli Parking Lot
Shopping Center Parking Lot between 10th St. and State Ave.
— Close to Side walk
Schuck's Auto Supply at 4th and State — Close to Sidewalk
Buzz Inn Parking Lot — Next to Sidewalk
Safeway Plaza—1 each at North and South ends of Parking Lot
— Close to Sidewalk
Key Bank Parking Lot — Next to Sidewalk
Marysville Plaza — Close to Sidewalk
Marysville School District Bus Barn — NE side outside fenced area
Duce Professional Building
Schuck's Auto Supply at 1273 State Ave. - Close to Sidewalk
3rd Street in Parking Lot next to Charlie's Ribs
Waterfront Park
Service is requested once per day on all dumpsters

POLICE DEPARTMENT. ASSISTANCE

Thursday, June 14th, 2007

Occasionally throughout Day
MARKET: Bicycle units to monitor Asbery Field

Friday, June 15th, 2007

Occasionally throughout Day
MARKET: Bicycle units monitor Asbery Field

Saturday, June 16th, 2007

5:00 PM to End of Event
PARADES: Assistance with crowd control and Street Closures

Occasionally throughout Day
MARKET: Bicycle units monitor Asbery Field

Sunday, June 17th, 2007

Occasionally throughout Day
MARKET: Bicycle units monitor Asbery Field

KIDDIES & GRAND PARADE: Seafair Marshals will assist in crowd control.

MARKET: Maryfest, Inc. will provide security. Telephone equipment will be provided so as to enable our security to be in contact with Maryfest, Inc. Officials and the Marysville Police Department. Marysville Seniors Against Crime will be providing night security.

CARNIVAL: Carnival Manager will contact Marysville Police Department for any security needs. ***Maryfest, Inc. is NOT responsible for carnival security.***

FIRE DEPARTMENT. ASSISTANCE

Wednesday, June 13th, 2007

6:00 PM to End of Event
TRIKE RACE TIME TRIALS: Aid Crew on site at Waterfront Park

Friday, June 15th, 2007

5:00 PM to End of Event
TRIKE RACE: Aid Crew on Site, Fire Hose and Fire Hydrant Wrench on site at Waterfront Park.

Saturday, June 16th, 2007

4:00 PM to 6:00 PM
GRAND PARADE: Fire Marshall requested at Marysville School District Bus Barn for float inspections.

Sunday, June 17th, 2007

8:00 AM to End of Event
BERRY RUN: Aid Crew on Site at Smokey Point Plant Farm

PARKS DEPARTMENT. ASSISTANCE

Thursday, May 24th, 2007 thru Monday, June 18th, 2007

Please place festival banner across 4th Street.

Thursday, June 15th, 2007 thru Sunday, June 17th, 2007

8:00 AM Thursday thru 6:00 PM Sunday
MARKET: Picnic tables to be delivered for use in food court area.

Saturday, June 16th, 2007 thru Sunday, June 17th, 2007

Noon Saturday thru Sunday
PARADE: Use of 2 mini tractors to be delivered to Key Bank at 76th Street for use by parade personnel

www.maryfest.com

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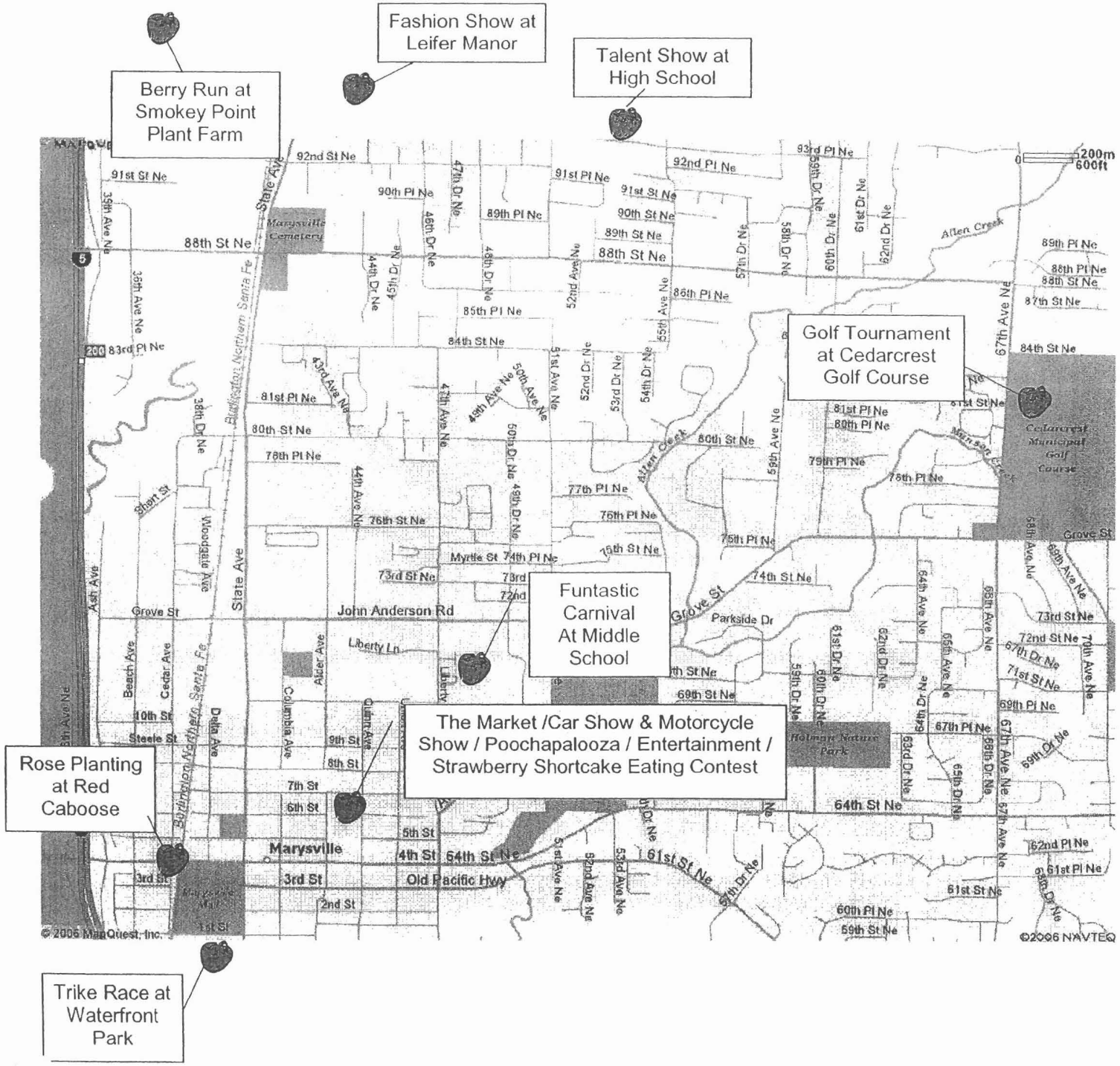
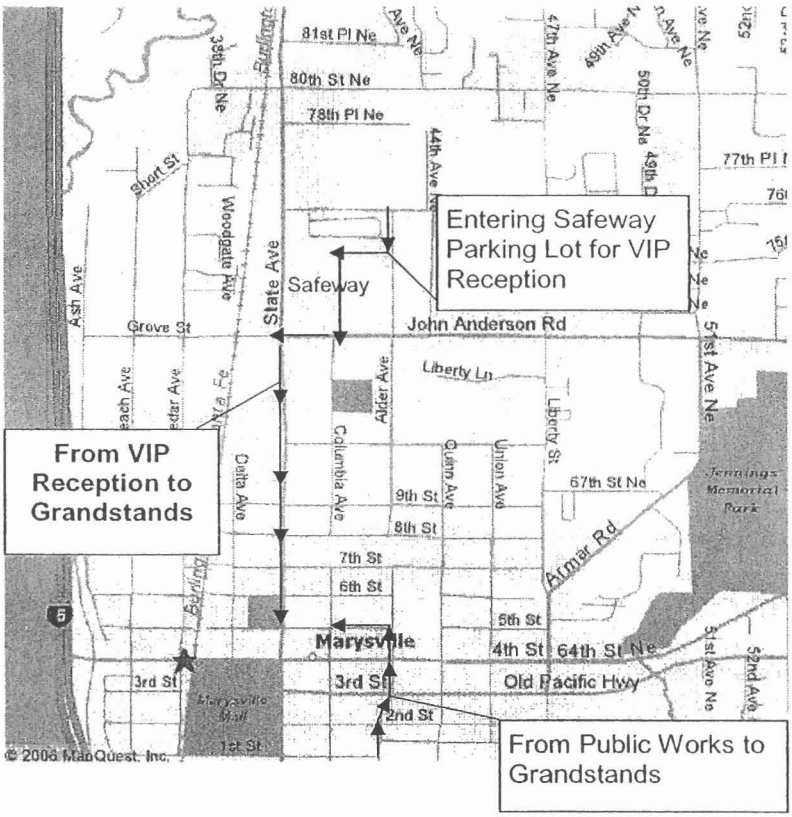
EVENT LOCATIONS



www.maryfest.com

TRANSPORTATION ROUTES



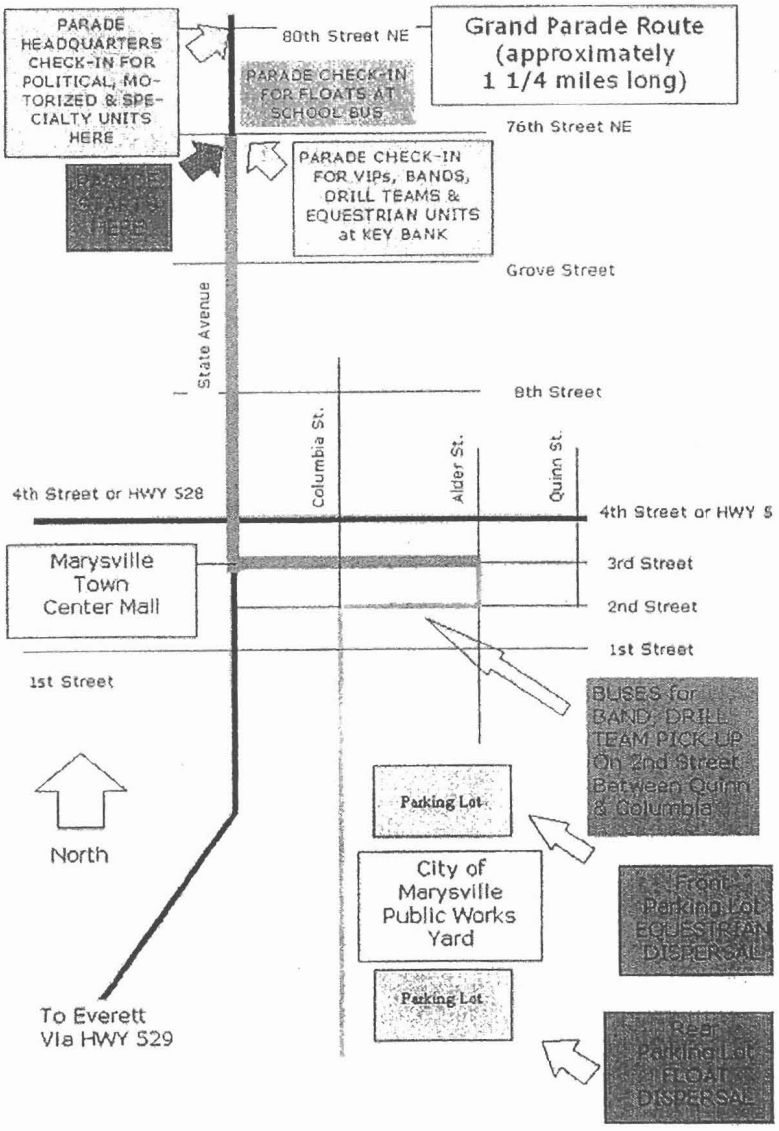
While the roads are closed VIP Transportation will be taking the following routes.

- VIP Shuttles will be taking people from Dispersal (Public Works) along Alder to the Grandstands on 5th St.
- VIP Shuttles will be on State Ave. until 7:30PM taking people from the start of the Parade Route (76th St.) and the Grandstands (5th St.).
- VIP Shuttles that will be taking people to the VIP Reception at Safeway will enter the Safeway Parking Lot from Alder and exiting onto Grove Street to State.

All VIP Shuttles will be clearly marked.

www.maryfest.com

GRAND PARADE STAGING & ROUTE



www.maryfest.com

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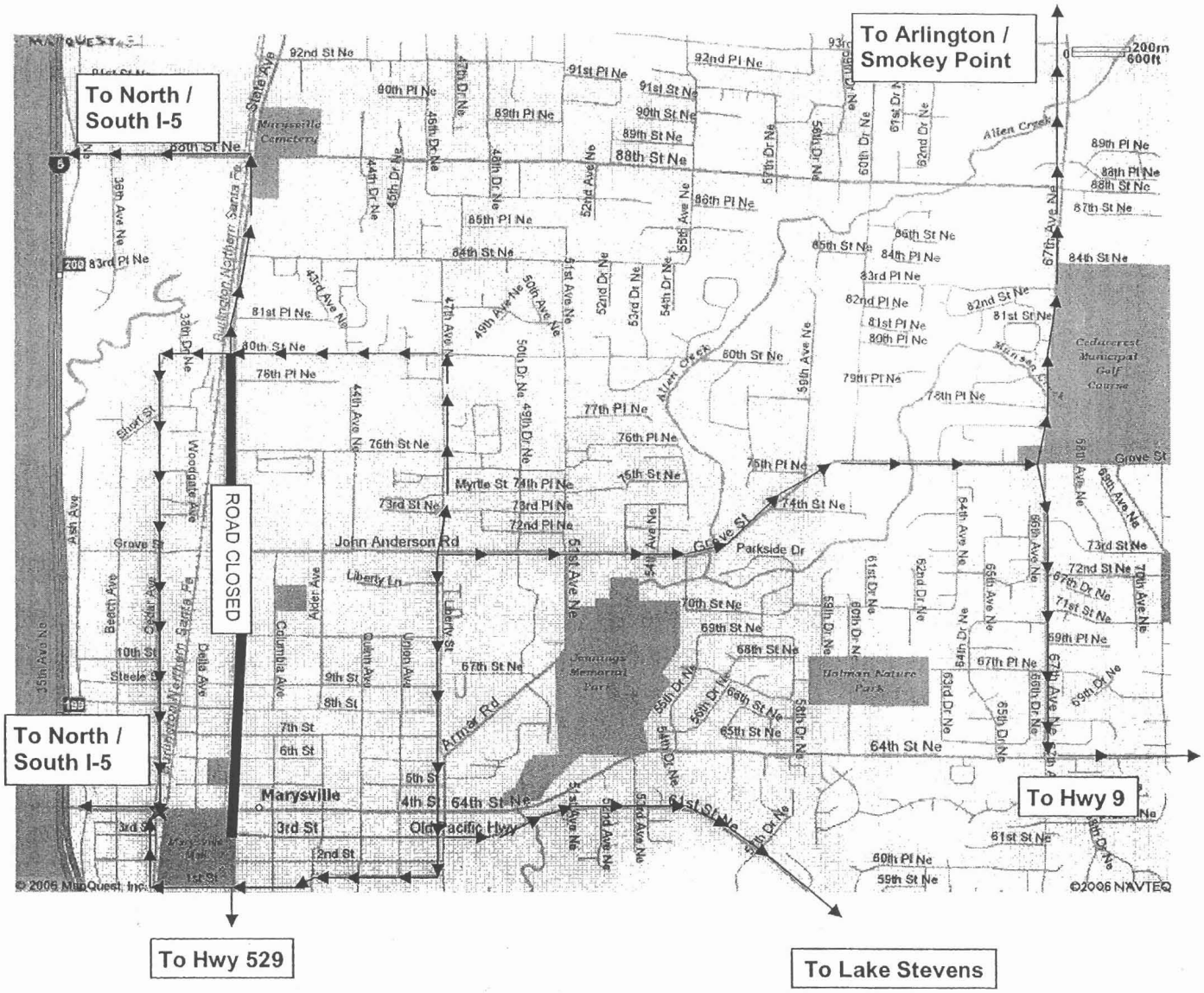
KIDDIES PARADE STAGING & ROUTE

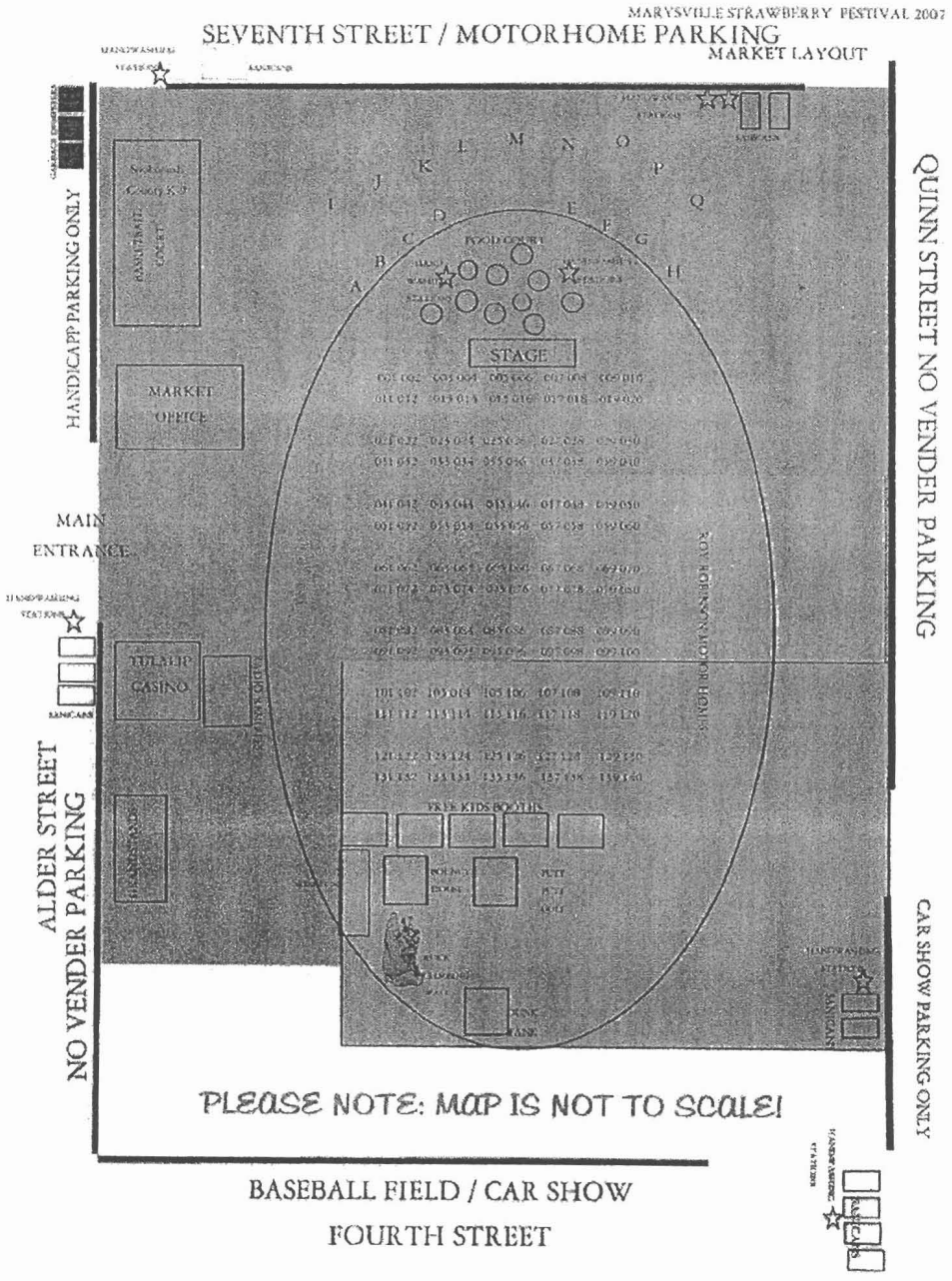
www.maryfest.com

ALTERNATIVE ROUTES



www.maryfest.com

MARKET IN THE PARK EVACUATION MAP



www.maryfest.com

CITY OF MARYSVILLE
STRAWBERRY FESTIVAL MASTER PERMIT/ AGREEMENT
ISSUED TO

MARYFEST INCORPORATED

WHEREAS, MARYFEST INCORPORATED (applicant) has submitted as festival proposal for the Strawberry Festival pursuant to MMC 5.48; and

WHEREAS, the Marysville City Council awarded the festival permit to MARYFEST INCORPORATED (applicant) on March 14, 2005; and

WHEREAS, the Marysville City Council in its discretion pursuant to MMC 5.48.050 has granted the MARYFEST INCORPORATED (applicant) as the festival sponsor an option to renew the permit without public competition for up to four years;

THEREFORE, the Master Permit is issued with the following terms and conditions.

1. TERM

A. First year Annual Proposal/Permit for June, 2005. Festival Proposal for 2007 is attached as Exhibit B.

B Options to renew for remaining years 2008 and 2009.

Pursuant to MMC 5.48.050, to exercise this option the festival sponsor, each year, shall submit a new festival proposal for approval by the City Council and shall pay a new festival permit fee. The festival Proposal for each year shall be in substantially the same form as the Festival Proposal/Permit attached as Exhibit B.

2. APPLICANT/SPONSORING AGENCY

Sponsoring Agency: MARYFEST INCORPORATED
Business Address: _____
Business Telephone: _____
Business Fax: _____
Email: _____
Tax Identification: _____

Sponsoring Agency Official(s) of Record:

Name_____ Title_____
Telephone: _____
Cell Number: _____

Name_____ Title_____
Telephone: _____
Cell Number: _____

Name_____ Title_____
Telephone: _____
Cell Number: _____

3. GENERAL RULES AND REGULATIONS FOR ALL STRAWBERRY FESTIVAL PERMITS.

A. Annual Permit Fees and Conditions

1. FEE: The Annual Permit Fee for the sponsoring organization Maryfest Incorporated, will be in the amount to be determined by City Council payable within 30 days of City Council approval of the Annual Festival Proposal.

2. Award of the Strawberry Festival Annual Master Permit shall not be construed as constituting the Strawberry Festival or Maryfest Incorporated as a governmental or proprietary activity, event or function of the City of Marysville, nor shall it be construed as constituting the Festival sponsor(s) as agents of the City of Marysville.

3. This Strawberry Festival Annual Master Permit is authorization to use City of Marysville Facilities only. It no way replaces any permit or license required by any other governmental regulatory organization for the activities identified herein.

B. Festival Sponsor Responsibility - Indemnification

The Festival sponsor shall assume all responsibility and liability for the conduct and management of the Annual Strawberry Festival, and the finances thereof.

The Festival Sponsor shall defend, indemnify and hold the City, its officers, officials, employees and volunteers harmless from any claims injuries, damages, losses or suits including attorney fees, arising out of or in connection with the performance of this festival and agreement, including actions or inactions of persons participating or providing services in the event or from spectators, citizens, and other persons attending the events, except for injuries and damages caused by the sole negligence of the City.

C. Insurance Coverage(s)

Maryfest Incorporated agrees that it will maintain in force, at its own expense, a liability insurance policy which will insure and indemnify Maryfest Inc. and the City of Marysville, its appointive and elected officers, employees and agents from any suits, claims or action brought against the City by any person or persons and from all costs and expenses of litigation brought against the City, its appointive and elected officers, employees and agents for such injuries to persons or damages to property occurring during the term of this Agreement or thereafter that result from performance or nonperformance by Maryfest Inc. of the obligations set forth in this Agreement. Said liability insurance policy shall be in an amount of no less than follows:

General Liability	$1,000,000 per occurrence.
Automobile Liability	$100,000 per person/ $300,000 per accident/ $100,000 property damage.
General Aggregate	$2,000,000

Special Event Coverage if necessary.

All Certificates of Insurance are to name the City of Marysville as Additionally Insured. Coverage dates are to include any and all activities presented by the Annual Festival Permit including activities associated with the post Festival activities required to complete all events.

Said policy is to be issued by a company authorized to do business in the State of Washington which is rated at least "A" or better and with a numerical rating of no less than "7", by A.M. Best Company, and which is acceptable by the City of Marysville. The policy shall contain a provision that the policy shall not be canceled or materially changed without 30 days notice prior written notice to the City, no cancellation provision in any insurance policy shall be construed in derogation of the continuous duty of Maryfest Inc. to furnish the required insurance during the term of this Agreement. Upon written request of the City, the insurer or his or her agent will furnish a copy of any policy cited above, certified to be a true and complete copy of the original.

In case of breach of any provision of this section, the City may at its options and with no obligation to do so, provide and maintain at the expense of Maryfest Inc. such types of insurance in the name of Maryfest Inc. as the City may deem proper, and may deduct or charge costs from any sums which may be found or become due to Maryfest under this Agreement or may demand Maryfest promptly reimburse the City for such costs.

D. Independent Contractor

It is further agreed by and between the parties that because this Agreement shall not constitute nor create an employer-employee relationship, Maryfest shall be responsible for all obligations relating to federal income tax, self employment, FICA taxes and contributions, and all other so-called employer taxes and contributions, including, but not limited to, industrial insurance(Worker's Compensation), and that Maryfest agrees to hold the City of Marysville harmless from any claims, valid or otherwise, made to the City because of these obligations.

Any and all employees of Maryfest, while engaged in the performance of any work or services required by Maryfest under this Agreement, shall be considered employees of Maryfest only and not the City of Marysville, and any and all claims that may or might arise under the Workman's Compensation Act on behalf of said employees of Maryfest, made by a third party as a consequence of any negligent act or omission on the part of Maryfest's employees while so engaged in any of the work or services required to be rendered herein, shall be the sole obligation and responsibility of Maryfest.

Maryfest shall comply with all applicable provisions of the Fair Labor Standards Act and other legislations affecting its employees and the rules and shall save the City free, clear and harmless from all actions, claims, demands and expenses arising out of said act and rules and regulations that are or may be promulgated in connection herewith.

Maryfest assumes full responsibility for the payment of all payroll taxes, use, sales, income or other form of taxes , fees, license, excises or payments required by city, state and federal legislation which are now, or may during the term of this Agreement be, enacted as to all persons employed by Maryfest Inc. and as to all duties, activities and requirements by Maryfest Inc. in performance of the work under this Agreement and Maryfest Inc. shall assume exclusively liability therefore, and meet all requirements there under pursuant to any rules or regulations that are now or may be promulgated in connection herewith.

E. Non Discrimination

_____*(Applicant)* nor any officer, agent or employees shall not discriminate in the provision of service under this contract against any individual, partnership, or corporation based upon race, religion, sex, creed, place of origin, or any other form of discrimination prohibited by federal, state or local law.

F. Annual Festival Events and Activities

All proposed festival events and activities are to be identified through the Strawberry Festival Annual Proposal no later than April 1st of the Festival year. The Festival Events and Activities schedule is to be submitted for review by the City Clerks Office and each City Department or Division identified providing support. The Festival Events and Activities schedule must also identify all sponsoring or hosting entities prior to approval of the Master Permit. The Proposal shall also identify all advertising and promotional efforts for distribution throughout the Pacific Northwest. All schedules are to be provided to the City's Public Information Officer for community distribution through the Community Access Channel and other City advertising resources. The Proposal shall designate the geographical boundaries of the festival area and may include provisions within the area for festival parades, carnivals, sporting and recreational events.

G. Use of Public Property

All public streets and facilities to be utilized for the permitted year are to be identified in the Annual Festival Proposal and updated annually for approval. Facilities or events not identified within the Annual Festival Proposal Exhibits are not covered within the annual permit and will not be considered permitted or authorized activities. Use of public

facilities that require advanced reservations, facility use agreements and or additional use considerations must be identified on an annual basis no later than 90 days before the first day of all festival activities. Facilities not reserved and or utilized by the permitted agency may become available for other uses under the requirements of any required facility use agreements enforced by the City. The sponsoring organization is prohibited from charging any type of admission or entry fee requirement in facilities owned and operated by the City of Marysville.

H. Vendor Facilities and Structures

All proposed vendors and structures housed on publicly owned and or private property are to be identified within the Annual Festival Proposal. Vendors not submitted will not be authorized to conduct business under the benefits of the Master Permit and will not be considered associated with the Strawberry Festival and subject to the requirements of the City of Marysville Municipal Code. Portable facilities erected or delivered for public use are to be identified within the organizations insurance coverage(s). Such facilities are to be inspected prior to authorized use by the general public.

I. Risk Management Plan

The sponsoring agency will establish a Risk Management Plan that will identify any potential catastrophic losses or events during the length of the Festival. The plan is to be submitted as an element of the Annual Festival Proposal. The plan must develop and maintain overall policies and procedures for risk control, including security, personal safety, automobile safety, fire prevention, emergency planning and legal liability, using internal or city assistance. The Risk Management plan is to identify the following basic criteria for the safety of all participants specifically during the Festivals largest attendance events such as:

1. Parade Route Safety Features and Evacuation Plan
2. Market in the Park Safety Requirements and Evacuation Plan
3. Special Venue Safety Requirements and Evacuation Plan
4. Carnival Site Safety Requirements and Evacuation Plan

The sponsoring organization is to identify the current Risk Manager annually within the Proposal. The Risk Manager is to provide immediate notification to the City Clerk of any potential loss or claim as a result of participation in any of the authorized Festival Events.

J. Special Conditions

Special Conditions may be required of the Master Permit during the permitted year. See attached **Special Conditions Exhibit A** if applicable.

K. Severability

If any part of this Agreement is found to be in conflict with applicable laws, such part shall be inoperative, null and void, insofar as it is in conflict with said laws, and the remainder of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the City and Maryfest have executed this Agreement as of the date first above written.

Date this ____ day of _____, 20___.

THE CITY OF MARYSVILLE

By_____
DENNIS L. KENDALL, Mayor

APPROVED AS TO FORM:

By_____
GRANT K. WEED, City Attorney

ATTEST:

By_____
City Clerk

MARYFEST INCORPORATED

By_____
PRESIDENT

Special Conditions Exhibit A

1. The Festival Sponsor may be responsible for damages to any city owned facilities and or equipment utilized during the overall length of the festival. Responsibility includes repairs and or replacement of any damaged equipment and or fixtures.

2. Traffic controls not available through the City's inventory will be the responsibility of the Festival Sponsor.

3. The City reserves the right to cancel its obligations to the sponsoring organization in the event of a public emergency requiring city forces and equipment.

4. Advertising of all festival activities is important to the success of the festival and promotion of the City of Marysville. Festival Sponsors are encouraged to work with the City's Community Information Officer in year-round promotions of the Strawberry Festival. The City requests that an ex-officio position be assigned to the sponsors operating board or Board of Directors to maintain open and current communications of all planned activities.

5. If the Sponsoring Festival Organization hosts a public golf tournament event, first consideration is to host the tournament on the City's Cedarcrest Golf Course.

6. City wide promotion of the Strawberry Festival shall include the acquisition of outdoor banners to be installed, maintained and removed on city owned fixtures by city personnel. Maryfest will provide a minimum of ten (10) full color event banners per year for the duration of this agreement. The City and Maryfest Incorporated must mutually authorize the type and design of the banners to be installed annually. The City may add to the banner inventory provided funds are available for the specific purpose to add to the inventory.

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Thorsteinson Lot 6 152nd Street BSP amendment, PA07-030.	AGENDA SECTION:
PREPARED BY: Steve Roberge, Senior Planner	AGENDA NUMBER:
ATTACHMENTS: 1. Application to amend BSP. 2. Copy of 152nd Street Industrial Park BSP. 3. Aerial map of area of interest.	APPROVED BY: MAYOR DZK / CAO
BUDGET CODE:	AMOUNT:

Summary:
Applicant requests amendment to restriction six (6) of the 152nd Street Industrial Park Binding Site Plan (BSP). Restriction 6 places a requirement on Lot 6 which is owned by the applicant. Public notice was provided consistent with notice requirements. No comments were received. Staff recommends striking restriction 6 of the 152nd Street Industrial Park Binding Site Plan.

Background:
Restriction 6 of the BSP requires Lot 6 to build a half street prior to final building inspection. Currently only twenty (20) feet of right-of-way (ROW) exists along the approximate north ½ of Lot 6 (please see attached aerial image). Thirty (30) feet is needed to complete half-street improvements. The south half of Lot 6 is fronted by full ROW. Lot 6 is the most northern lot of the BSP and the current road, 39th Ave NE, terminates approximately where full ROW ends.

Frontage improvements (building a half-street) are required along street frontages by the current City code for new developments. The BSP requirement is redundant and does not allow a modification to the standards to meet site specific constraints.

The proposed use of the property is a mini-storage warehouse. The proposed use is allowed pursuant to the zoning code and is subject to obtaining permits and approvals as required.

The applicant has sought to obtain property from the adjacent property owner, to enlarge the 20' of ROW to 30', but has been unsuccessful. The street will have to be built to full width when the abutting property develops.

Concurrent with this proposed BSP amendment an application for a variance from the Engineering Standards was submitted which would allow a one-way road to be built and utilized in the existing 20' of ROW.

If approved the amendment and Engineering Standards Variance would allow for a two way road, as exists now, along the southern half of the property, where full right-of-way exists, and a one way road to the northern extent of the property. This would not relieve the applicant of obligation to provide for vehicle flow to and from Lot 6 or of completing frontage improvements as are possible within the existing ROW.

RECOMMENDED ACTION: Planning Staff recommends Council approve the BSP amendment.
COUNCIL ACTION:

FOR AGENCY USE ONLY

DATE: 3/28/07

FILE NUMBER: PA07022

APLICATION FEE: $350.00

App accepted by SR. 3-28-07 for

CITY OF MARYSVILLE
DEPARTMENT OF PLANNING AND BUILDING
80 COLUMBIA AVENUE
MARYSVILLE, WA 98270
PHONE: (360) 363-8100

RECEIVED
MAR 28 2007
CITY OF MARYSVILLE
COMMUNITY DEVELOPMENT

PLEASE TYPE

	Owner	Applicant	Contact Person (if different than owner or applicant)
Name:	STORAGE CONDOS OF WASHINGTON, LLC	JAMES P & LINDA D. THORSTEINSON	
Mailing Address:	7608 85TH PL NE	7608 85TH PL NE	
City, State, Zip:	MARYSVILLE, WA 98270	MARYSVILLE, WA 98270	
Phone/business:	425-350-5232	425-350-5232	
Phone/home:	360-651-2026	360-651-2026	

Relation of Applicant to property (check one) :

Owner [X] Contract Purchaser [ ] Lessee [ ] Other (specify) _____

Name, mailing address, and telephone number of property owner, if different from applicant: _____

Address and general location of property (including nearest intersection): _____

15311 39TH AVE. NE MARYSVILLE, WA
152ND ST NE AND 39TH AVE N.E.

Section 33 Township 31N Range 5E, W.M.

Legal description of property: _____

LOT 6, BSP 200303065004;
PTN NE 1/4 NW 1/4 33-31-5

List all assessor's tax account numbers involved (all 14 digits) :

310533-002-062-00		

Approximate acreage: 1.88

Present use of property: OPEN STORAGE

Present zoning: GENERAL COMMERCIAL

Source of water supply, and name of water district, if any: MARYSVILLE

Method of sewage disposal, and name of sewer district, if any: MARYSVILLE

Permits needed from the City of Marysville (please check with staff) :

[ ] Rezone [ ] Shoreline Management [ ] Variance

[ ] Preliminary Plat [ ] Shoreline Management Variance [ ] Plan Modification

[ ] Conditional Use [ ] Shoreline Conditional Use [ ] Plat Modification

[ ] Comprehensive Plan Amendment [ ] Preliminary Short Plat [X] Other MODIFY BSP.

Please explain your request or proposed use: ALLOW FRONTAGE IMPROVEMENTS TO THE NORTH PROPERTY LINE AS PERMITTED BY EXISTING 20' DEDICATION.

PLEASE FILL IN ALL APPROPRIATE SECTIONS

REZONE APPLICATIONS ONLY

Requested zoning: _____

Has anyone applied for a rezone of this property within the last five years? [ ] Yes [ ] No

If yes, who? _____

PLAT APPLICATIONS ONLY

Plat name: _____ Number of lots: _____

County Assessor verification [Completed by City] _____

SHORELINE MANAGEMENT PERMITS ONLY

Total cost or fair market value (whichever is higher) of project (please state total value of all construction and finishing work for which the permit will be issued, including all permanent equipment to be installed on the premises) :

$ _____

Construction dates for which permit is requested (month and year) :

Begin: _____ and End: _____

Does this project require a shoreline/floodplain location? [ ] Yes [ ] No

If yes, please explain. _____

_____

_____

_____

Water area and/or wetlands involved: _____

VARIANCES and SHORELINE MANAGEMENT VARIANCES ONLY

Code requirement involved: _____

ALL PERMITS

Please list any additional information not covered above which might help to clarify your request:

_____

_____

_____

_____

A notarized affidavit is required to filled out by all persons having an ownership interest in the subject property, and the applicant, if different than the property owner(s).

STATE OF WASHINGTON)

) ss

I (We) James R. Thorstenson, being duly sworn, depose and say that I am (we are) the OWNER (s) of the property involved in this application, and that I (we) have familiarized myself (ourselves) with the rules and regulations with respect to preparing and filing this application and that the statements and information submitted herewith are in all respects true and correct to the best of my (our) knowledge and belief.

Signed James R. Thorsteinson
Property Owner

Subscribed and sworn to before me this 28th day of March, 2007

Notary Public in and for the State of Washington
residing at

CLINT K. KNIGHT NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES 2-05-10

STATE OF WASHINGTON)
) ss

I (We) Linda D. Thorsteinson, being duly sworn, depose and say that I am (we are) the APPLICANT(S) for this application, and that I (we) have familiarized myself (ourselves) with the rules and regulations with respect to preparing and filing this application and that the statements and information submitted herewith are in all respects true and correct to the best of my (our) knowledge and belief.

Signed Linda D. Thorsteinson
Applicant

Subscribed and sworn to before me this 28th day of March, 2007

Notary Public in and for the State of Washington
residing at

CLINT K. KNIGHT NOTARY PUBLIC STATE OF WASHINGTON

FOR AGENCY USE ONLY

DATE: _____

FILE NUMBER: _____ APPLICATION FEE: _____

152ND STREET INDUSTRIAL PARK
CITY OF MARYSVILLE BINDING SITE PLAT PA 0104022
N.E.1/4 N.W.1/4 SECTION 33, TOWNSHIP 31 NORTH, RANGE 5 EAST, W.M.

EASEMENT PROVISIONS (CONTINUED)

2. A 7' PRIVATE DRAINAGE EASEMENT IS HEREBY GRANTED TO LOTS 1 THROUGH 6, FOR STORM DRAINAGE PIPELINE AND ITS APPURTENANCES OVER, UNDER, ACROSS, AND THROUGH THE ROAD FRONTAGE OF LOTS 1 THROUGH 6 AS SHOWN HEREON.

3. A 10' LANDSCAPE BUFFER IS HEREBY GRANTED TO LOTS 1 THROUGH 6, FOR VEGETATIVE LANDSCAPE PURPOSES OVER AND ACROSS LOTS 1 THROUGH 6 AS SHOWN HEREON.

4. PRIVATE DRAINAGE EASEMENTS ARE HEREBY GRANTED TO LOTS 1 THROUGH 6, FOR STORM DRAINAGE AND ITS APPURTENANCES OVER, UNDER, ACROSS, AND THROUGH THE LOTS 2 THROUGH 6 AS SHOWN HEREON.

5. A 50' RADIUS TEMPORARY TURNAROUND EASEMENT IS HEREBY GRANTED TO THE CITY OF MARYSVILLE ACROSS LOT 5 AND LOT 6 AS SHOWN HEREON. THE TEMPORARY TURNAROUND EASEMENT SHALL AUTOMATICALLY EXPIRE WHEN THE PUBLIC STREET IS EXTENDED TO THE NORTH LINE OF THIS BINDING SITE PLAN, ACCEPTED AND MAINTAINED BY THE CITY OF MARYSVILLE OR ITS SUCCESSORS.

RESTRICTIONS

1. ALL POWER LINES, TELEPHONE WIRES, TELEVISION CABLES, FIRE ALARM SYSTEMS AND OTHER COMMUNICATION WIRES, CABLES OR LINES BE PLACED IN AN UNDERGROUND LOCATION EITHER BY DIRECT BURIAL OR BY MEANS OF CONDUIT OR DUCTS.

2. SUBJECT TO THE TERMS AND COVENANTS, CONDITIONS, RESTRICTIONS, DEDICATIONS, AGREEMENTS, EASEMENTS, MAINTENANCE PROVISIONS AND NOTES CONTAINED IN SHORT PLAT NO. 26(1-78), RECORDED UNDER AUDITOR'S FILE NO. 7807110297.

3. SUBJECT TO THE TERMS AND CONDITIONS OF P.U.D. NO. 1 EASEMENT RECORDED UNDER AUDITOR'S FILE NO. 200301030034.

4. SUBJECT TO THE PENDING ACTION IN SNOHOMISH COUNTY SUPERIOR COURT FILED UNDER CAUSE NO. 01-2-10073-2.

5. CITY AND COUNTY TRAFFIC MITIGATION FEES SHALL BE ASSESSED ON A LOT BY LOT BASIS PURSUANT TO CONDITION(S) #3 AND 4 OF THE MITIGATED DETERMINATION OF NON-SIGNIFICANCE DATED 1/15/02. ALL REQUIRED CITY AND COUNTY TRAFFIC MITIGATION FEES SHALL BE PAID PRIOR TO ISSUANCE OF BUILDING PERMIT(S) FOR THAT PARTICULAR LOT.

6. LOT 6 OF THIS BINDING SITE PLAN, IS REQUIRED TO COMPLETE THE ABUTTING HALF-STREET FRONTAGE IMPROVEMENTS OF 39TH AVENUE NE. TO THE NORTH PROPERTY BOUNDARY UPON FUTURE DEVELOPMENT OF LOT 6. ALL REQUIRED IMPROVEMENTS SHALL BE COMPLETED PRIOR TO A FINAL BUILDING INSPECTION BEING GRANTED ON LOT 6.

ACKNOWLEDGMENTS

STATE OF WASHINGTON)
)SS.
COUNTY OF SNOHOMISH)

I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT EDMUND M. THOMAS AND LYNN TAYLOR THOMAS, HUSBAND AND WIFE ARE THE PERSONS WHO APPEARED BEFORE ME, AND SAID PERSONS ACKNOWLEDGED THAT THEY SIGNED THIS INSTRUMENT AND ACKNOWLEDGED IT TO BE THEIR FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATED February 27, 2003

Sue Ellen Pike
NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON

SUE ELLEN PIKE
NOTARY PUBLIC
STATE OF WASHINGTON
COMMISSION EXPIRES
MAY 29, 2005

Sue Ellen Pike
(NOTARY NAME TO BE PRINTED)

RESIDING AT: Marysville

MY APPOINTMENT EXPIRES: 5-29-05

STATE OF WASHINGTON)
)SS.
COUNTY OF SNOHOMISH)

I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT DAVID W. THOMAS AND LISA THOMAS, HUSBAND AND WIFE ARE THE PERSONS WHO APPEARED BEFORE ME, AND SAID PERSONS ACKNOWLEDGED THAT THEY SIGNED THIS INSTRUMENT AND ACKNOWLEDGED IT TO BE THEIR FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATED February 27, 2003.

Sue Ellen Pike
NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON

SUE ELLEN PIKE
NOTARY PUBLIC

Sue Ellen Pike

STATE OF WASHINGTON)
)SS.
COUNTY OF SNOHOMISH)

I CERTIFY THAT I KNOW OR HAVE SATI
TODD HANSON IS THE PERSON W
PERSON ACKNOWLEDGED THAT HE/SHE SIG
STATED THAT HE/SHE WAS AUTHORIZED TO
ACKNOWLEDGED IT AS THE VICE
TO BE THE FREE AND VOLUNTARY ACT OF
PURPOSES MENTIONED IN THE INSTRUMENT.

DATED 2-26, 2003.

GREGG HECHT
NOTARY PUBLIC
STATE OF WASHINGTON
COMMISSION EXPIRES
9-19-05

NOTARY PUBLIC IN
GREGG HE
(NOTARY NAME TO
RESIDING AT: M
MY APPOINTMENT E

APPROVALS

THE WITHIN AND FOREGOING BINDING SITE
PRELIMINARY APPROVAL AND IS APPROV
OF THE CITY OF MARYSVILLE MUNICIPAL C

THIS 27th DAY OF FEB. 2003.

Gloria Hirashima FOR Gloria Hirash
CITY OF MARYSVILLE COMMUNITY DEVELC

THE WITHIN AND FOREGOING BINDING SITE
LAYOUT OF STREETS AND RIGHT OF WAYS
SYSTEMS AND OTHER PUBLIC IMPROVEMEI

THIS 27th DAY OF Feb., 2003.

Jeffrey D. Haggen
CITY OF MARYSVILLE ENGINEER

TREASURER'S CERTIFICATE

THIS IS TO CERTIFY THAT ALL TAXES HER
BECOME A LIEN UPON THE LANDS HEREIN I
AND DISCHARGED ACCORDING TO THE R
INCLUDING THE YEAR 2003.

Bob Dantini, THE TREASU
WASHINGTON, HEREBY CERTIFY THAT A DE
ANTICIPATED TAXES UP TO AND INCLUDIN

THIS 6th DAY OF March

Ronda L Wheeler
SNOHOMISH COUNTY TREASURER

IN ACCORDANCE WITH RCW 58.08.0
ANY PERSON RECORDING A PLAT /
MAY 31st MUST PAY ADVANCE TAX
FOR THE NEXT YEAR.

AUDITOR'S CERTIFICATE

FILED FOR RECORD AT THE REQUEST OF
DAY OF 6-45 March, 2003, AT 3
AND RECORDED IN VOL. OF SURV
, RECORDS OF SN

BOB TERWILLEGER
AUDITOR, SNOHOMISH COUNTY

BY: MICHAEL R. SHEEHAN

152ND STREET INDUSTRIAL PARK

CITY OF MARYSVILLE BINDING SITE PLAT PA 0104022

N.E.1/4 N.W.1/4 SECTION 33, TOWNSHIP 31 NORTH, RANGE 5 EAST, W.M.

DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT EDMUND H. THOMAS, LYNN TAYLOR THOMAS, DAVID H. THOMAS, AND LISA THOMAS, THE UNDERSIGNED OWNERS AND CITY BANK, THE MORTGAGEE THEREOF, HEREBY DECLARE THIS BINDING SITE PLAN AND DEDICATE TO THE USE OF THE PUBLIC FOREVER ALL STREETS, AVENUES, PLACES AND SEWER EASEMENTS OR WHATEVER PROPERTY THERE IS SHOWN ON THE BINDING SITE PLAN AND THE USE FOR ANY AND ALL PUBLIC PURPOSES NOT INCONSISTENT WITH THE USE THEREOF FOR PUBLIC HIGHWAY PURPOSES. ALSO THE RIGHT TO MAKE ALL NECESSARY SLOPES FOR CUTS AND FILLS UPON LOTS, BLOCKS, TRACTS, ETC. SHOWN ON THIS BINDING SITE PLAN IN THE REASONABLE ORIGINAL GRADING OF ALL STREETS, AVENUES, PLACES, SHOWN HEREON, ALSO THE RIGHT TO DRAIN ALL STREETS OVER AND ACROSS ANY LOT OR LOTS WHERE WATER MIGHT TAKE A NATURAL COURSE AFTER THE STREET OR STREETS ARE GRADED, WHICH MAY BE OCCASIONED TO THE ADJACENT LAND BY THE ESTABLISHED CONSTRUCTION, DRAINAGE, AND MAINTENANCE OF SAID ROADS.

FOLLOWING ORIGINAL REASONABLE GRADING OF THE ROADS AND WAYS HEREON, NO DRAINAGE WATERS ON ANY LOT OR LOTS SHALL BE DIVERTED OR BLOCKED FROM THEIR NATURAL COURSE SO AS TO DISCHARGED UPON ANY PUBLIC ROAD RIGHT-OF-WAY TO HAMPER PROPER ROAD DRAINAGE. THE OWNER OF ANY LOT OR LOTS, PRIOR TO MAKING ANY ALTERATION IN THE DRAINAGE SYSTEM AFTER RECORDING OF THE BINDING SITE PLAN MUST MAKE APPLICATION TO AND RECEIVE APPROVAL FROM THE DIRECTOR OF PUBLIC WORKS FOR SAID ALTERATION. ANY ENCLOSING OF DRAINAGE WATERS IN CULVERTS, OR DRAINS OR REROUTING THEREOF ACROSS ANY LOT AS MAY BE UNDERTAKEN BY OR FOR THE OWNER OF ANY LOT SHALL BE DONE AT THE EXPENSE OF SUCH OWNER

IN WITNESS WHEREOF WE SET OUR HANDS AND SEALS THIS 27 DAY OF Feb. 2003.

Edmund H. Thomas — Lynn Taylor Thomas

EDMUND H. THOMAS — LYNN TAYLOR THOMAS

David H. Thomas — Lisa Thomas

DAVID H. THOMAS — LISA THOMAS

BY: — TITLE: V.P.

CITY BANK

LEGAL DESCRIPTION

THE WEST HALF OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 31 NORTH, RANGE 5 EAST, W.M.;

EXCEPT THE EAST 315 FEET THEREOF; AND

EXCEPT THE WEST 233 FEET OF THE EAST 548 FEET OF THE SOUTH 265 FEET OF SAID WEST HALF; AND

EXCEPT THAT PORTION OF THE ABOVE DESCRIBED TRACT OF LAND WHICH LIES SOUTH OF AND EAST OF THE FOLLOWING DESCRIBED LINE:

COMMENCING AT THE NORTHWEST CORNER OF THE WEST HALF OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 31 NORTH, RANGE 5 EAST, W.M.; THENCE SOUTH 88°54'33" EAST ALONG THE NORTH LINE OF SAID SUBDIVISION A DISTANCE OF 317.22 FEET TO A FENCE AS IT EXISTED ON NOVEMBER 1, 1977, SAID POINT BEING THE TRUE POINT OF BEGINNING OF THIS LEGAL DESCRIPTION; THENCE SOUTH 1°07'28" WEST ALONG SAID FENCE FOR A DISTANCE OF 1,057.18 FEET; THENCE NORTH 88°45'34" WEST PARALLEL TO THE SOUTH LINE OF SAID SUBDIVISION A DISTANCE OF 221.32 FEET; THENCE SOUTH 1°25'50" WEST PARALLEL TO THE EAST LINE OF SAID SUBDIVISION A DISTANCE OF 16.50 FEET TO A POINT WHICH LIES 548.00 FEET WEST OF THE EAST LINE OF SAID SUBDIVISION AND 265.00 FEET NORTH OF THE SOUTH LINE OF SAID SUBDIVISION, SAID POINT BEING THE TERMINATION POINT OF SAID LINE; AND

EXCEPT THE SOUTH 30 FEET THEREOF CONVEYED TO THE COUNTY OF SNOHOMISH BY DEED RECORDED UNDER AUDITOR'S FILE NUMBER 1808020871.

SITUATE IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON

(LEGAL DESCRIPTION PER CHICAGO TITLE INSURANCE COMPANY PLAT CERTIFICATE DATED JANUARY 17TH, 2003, ORDER NO. 372031.)

EASEMENT PROVISIONS

1. AN EASEMENT IS HEREBY RESERVED FOR AND GRANTED TO ALL UTILITIES AND THEIR RESPECTIVE SUCCESSORS AND ASSIGNS, UNDER AND UPON THE EXTERIOR TEN FEET OF ALL LOTS OF THIS BINDING SITE PLAN AS SHOWN HEREON, IN WHICH TO INSTALL, LAY, CONSTRUCT, RENEW, OPERATE, MAINTAIN AND REMOVE UTILITY SYSTEMS, LINES, FIXTURES, AND APPURTENANCES ATTACHED THERETO, FOR THE PURPOSE OF PROVIDING THIS BINDING SITE PLAN AND OTHER PROPERTY WITH UTILITY SERVICE. TOGETHER WITH THE RIGHT TO ENTER UPON THE LOTS AT ALL TIMES FOR THE PURPOSES STATED, WITH THE UNDERSTANDING THAT ANY GRANTEE SHALL BE RESPONSIBLE FOR ALL UNNECESSARY DAMAGE IT CAUSES TO ANY REAL PROPERTY OWNERS IN THE BINDING SITE PLAN BY THE EXERCISE OF RIGHTS AND PRIVILEGES HEREIN GRANTED.

EASEMENT PROVISIONS (CONTINUED)

2. A 7' PRIVATE DRAINAGE EASEMENT IS HEREBY GRANTED TO LOTS 1 THROUGH 6, FOR STORM DRAINAGE PIPELINE AND ITS APPURTENANCES OVER, UNDER, ACROSS, AND THROUGH THE ROAD FRONTAGE OF LOTS 1 THROUGH 6 AS SHOWN HEREON.

3. A 10' LANDSCAPE BUFFER IS HEREBY GRANTED TO LOTS 1 THROUGH 6, FOR VEGETATIVE LANDSCAPE PURPOSES OVER AND ACROSS LOTS 1 THROUGH 6 AS SHOWN HEREON.

4. PRIVATE DRAINAGE EASEMENTS ARE HEREBY GRANTED TO LOTS 1 THROUGH 6, FOR STORM DRAINAGE AND ITS APPURTENANCES OVER, UNDER, ACROSS, AND THROUGH THE LOTS 2 THROUGH 6 AS SHOWN HEREON.

5. A 50' RADIUS TEMPORARY TURNAROUND EASEMENT IS HEREBY GRANTED TO THE CITY OF MARYSVILLE ACROSS LOT 5 AND LOT 6 AS SHOWN HEREON. THE TEMPORARY TURNAROUND EASEMENT SHALL AUTOMATICALLY EXPIRE WHEN THE PUBLIC STREET IS EXTENDED TO THE NORTH LINE OF THIS BINDING SITE PLAN, ACCEPTED AND MAINTAINED BY THE CITY OF MARYSVILLE OR ITS SUCCESSORS.

RESTRICTIONS

1. ALL POWER LINES, TELEPHONE WIRES, TELEVISION CABLES, FIRE ALARM SYSTEMS AND OTHER COMMUNICATION WIRES, CABLES OR LINES BE PLACED IN AN UNDERGROUND LOCATION EITHER BY DIRECT BURIAL OR BY MEANS OF CONDUIT OR DUCTS.

2. SUBJECT TO THE TERMS AND COVENANTS, CONDITIONS, RESTRICTIONS, DEDICATIONS, AGREEMENTS, EASEMENTS, MAINTENANCE PROVISIONS AND NOTES CONTAINED IN SHORT PLAT NO. 261-78, RECORDED UNDER AUDITOR'S FILE NO. 7807110247.

3. SUBJECT TO THE TERMS AND CONDITIONS OF P.U.D. NO. 1 EASEMENT RECORDED UNDER AUDITOR'S FILE NO. 200301080084.

4. SUBJECT TO THE PENDING ACTION IN SNOHOMISH COUNTY SUPERIOR COURT FILED UNDER CAUSE NO. 01-2-10078-2.

5. CITY AND COUNTY: TRAFFIC MITIGATION FEES SHALL BE ASSESSED ON A LOT BY LOT BASIS PURSUANT TO CONDITIONS) #3 AND 4 OF THE MITIGATED DETERMINATION OF NON-SIGNIFICANCE DATED 7/15/02. ALL REQUIRED CITY AND COUNTY TRAFFIC MITIGATION FEES SHALL BE PAID PRIOR TO ISSUANCE OF BUILDING PERMIT(S) FOR THAT PARTICULAR LOT.

6. LOT 6 OF THIS BINDING SITE PLAN, IS REQUIRED TO COMPLETE THE ABUTTING HALF-STREET FRONTAGE IMPROVEMENTS OF 34TH AVENUE N.E. TO THE NORTH PROPERTY BOUNDARY UPON FUTURE DEVELOPMENT OF LOT 6. ALL REQUIRED IMPROVEMENTS SHALL BE COMPLETED PRIOR TO A FINAL BUILDING INSPECTION BEING GRANTED ON LOT 6.

ACKNOWLEDGMENTS

STATE OF WASHINGTON)
)SS.
COUNTY OF SNOHOMISH)

I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT EDMUND H. THOMAS AND LYNN TAYLOR THOMAS, HUSBAND AND WIFE ARE THE PERSONS WHO APPEARED BEFORE ME, AND SAID PERSONS ACKNOWLEDGED THAT THEY SIGNED THIS INSTRUMENT AND ACKNOWLEDGED IT TO BE THEIR FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATED February 27 2003

Sue Ellen Pike
NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON

SUE ELLEN PIKE NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES MAY 29, 2005

Sue Ellen Pike
(NOTARY NAME TO BE PRINTED)

RESIDING AT: Marysville

MY APPOINTMENT EXPIRES: 5-29-05

STATE OF WASHINGTON)
)SS.
COUNTY OF SNOHOMISH)

I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT DAVID H. THOMAS AND LISA THOMAS, HUSBAND AND WIFE ARE THE PERSONS WHO APPEARED BEFORE ME, AND SAID PERSONS ACKNOWLEDGED THAT THEY SIGNED THIS INSTRUMENT AND ACKNOWLEDGED IT TO BE THEIR FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATED February 27 2003

Sue Ellen Pike
NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON

SUE ELLEN PIKE NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES MAY 29, 2005

Sue Ellen Pike
(NOTARY NAME TO BE PRINTED)

RESIDING AT: Marysville

MY APPOINTMENT EXPIRES: 5-29-05

STATE OF WASHINGTON)
)SS.
COUNTY OF SNOHOMISH)

I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT TODD THOMAS IS THE PERSON WHO APPEARED BEFORE ME, AND SAID PERSON ACKNOWLEDGED THAT HE/SHE SIGNED THIS INSTRUMENT, ON OATH STATED THAT HE/SHE WAS AUTHORIZED TO EXECUTE THE INSTRUMENT AND ACKNOWLEDGED IT AS THE VICE PRESIDENT OF CITY BANK, TO BE THE FREE AND VOLUNTARY ACT OF SUCH PARTY FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATED 2-26 2003.

Gregg Hecht
NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON

GREGG HECHT NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES 9-19-05

GREGG HECHT
(NOTARY NAME TO BE PRINTED)

RESIDING AT: MUKILTEO

MY APPOINTMENT EXPIRES: 9-19-05

APPROVALS

THE WITHIN AND FOREGOING BINDING SITE PLAN CONFORMS TO THE CONDITIONS OF PRELIMINARY APPROVAL AND IS APPROVED IN ACCORDANCE WITH THE PROVISIONS OF THE CITY OF MARYSVILLE MUNICIPAL CODE ON

THIS 27th DAY OF FEB. 2003.

Gloria Hirashima
CITY OF MARYSVILLE COMMUNITY DEVELOPMENT DIRECTOR

THE WITHIN AND FOREGOING BINDING SITE PLAN CONFORMS TO SURVEY DATA, LAYOUT OF STREETS AND RIGHT OF WAYS, DESIGN OF SEWERAGE AND WATER SYSTEMS AND OTHER PUBLIC IMPROVEMENTS EXAMINED AND APPROVED

THIS 27th DAY OF Feb. 2003.

CITY OF MARYSVILLE ENGINEER

TREASURER'S CERTIFICATE

THIS IS TO CERTIFY THAT ALL TAXES HERETOFORE LEVIED AND WHICH HAVE BECOME A LIEN UPON THE LANDS HEREIN DESCRIBED HAVE BEEN FULLY PAID AND DISCHARGED ACCORDING TO THE RECORDS OF MY OFFICE, UP TO AND INCLUDING THE YEAR 2003.

Bert Bantini, THE TREASURER OF SNOHOMISH COUNTY, WASHINGTON, HEREBY CERTIFY THAT A DEPOSIT HAS BEEN PAID TO COVER ANTICIPATED TAXES UP TO AND INCLUDING THE YEAR OF 2003

THIS 6th DAY OF March 2003.

Ronda L Wheeler
SNOHOMISH COUNTY TREASURER
BY DEPUTY

PURSUANT TO RCW 58.08.030, ANY PERSON RECORDING A PLAT AFTER MAY 31ST MUST PAY ADVANCE TAXES FOR THE NEXT YEAR

TREASURER OFFICIAL SEAL SNOHOMISH COUNTY, WASHINGTON

AUDITOR'S CERTIFICATE

FILED FOR RECORD AT THE REQUEST OF THOMAS E. BARRY, THIS 6th DAY OF MARCH 2003, AT 38 MINUTES PAST 2 PM AND RECORDED IN VOL. — OF SURVEYS, PAGE — A.F.N. — RECORDS OF SNOHOMISH COUNTY, WASHINGTON.

BOB TERWILLEGER
AUDITOR, SNOHOMISH COUNTY

BY: MICHAEL R. SHEEHAN
DEPUTY COUNTY AUDITOR

A.F.N. 200303065094

REV 04 RJD 2-25-08

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS BINDING SITE PLAN OF 152ND STREET INDUSTRIAL PARK IS BASED UPON AN ACTUAL SURVEY AND SUBDIVISION OF SECTION 33, TOWNSHIP 31 NORTH, RANGE 5 EAST, W.M. AS REQUIRED BY STATE STATUTES; THAT THE DISTANCES, COURSES AND ANGLES ARE SHOWN THEREON CORRECTLY, THAT THE MONUMENTS SHALL BE SET AND LOT AND BLOCK CORNERS SHALL BE STAKED CORRECTLY ON THE GROUND, THAT I FULLY COMPLIED WITH THE PROVISIONS OF THE STATE AND LOCAL STATUTES AND REGULATIONS GOVERNING PLATTING

Thomas E. Barry DATE: 2-27-03

THOMAS E. BARRY, P.L.S.,
REGISTERED PROFESSIONAL LAND SURVEYOR
CERTIFICATE NO. 22067

THOMAS E. BARRY STATE OF WASHINGTON 22067 REGISTERED LAND SURVEYOR EXPIRES 3-7-04

METRON and ASSOCIATES INC.
LAND SURVEYS, MAPS, AND LAND USE PLANNING
307 N. OLYMPIC, SUITE 205
ARLINGTON, WASHINGTON 98223
(360) 435-3777 FAX (360) 435-4822

DATE: JAN 2003 BY: J.S.M. SCALE: —

PROJECT NO. 00137A F.B. 5-31 #29

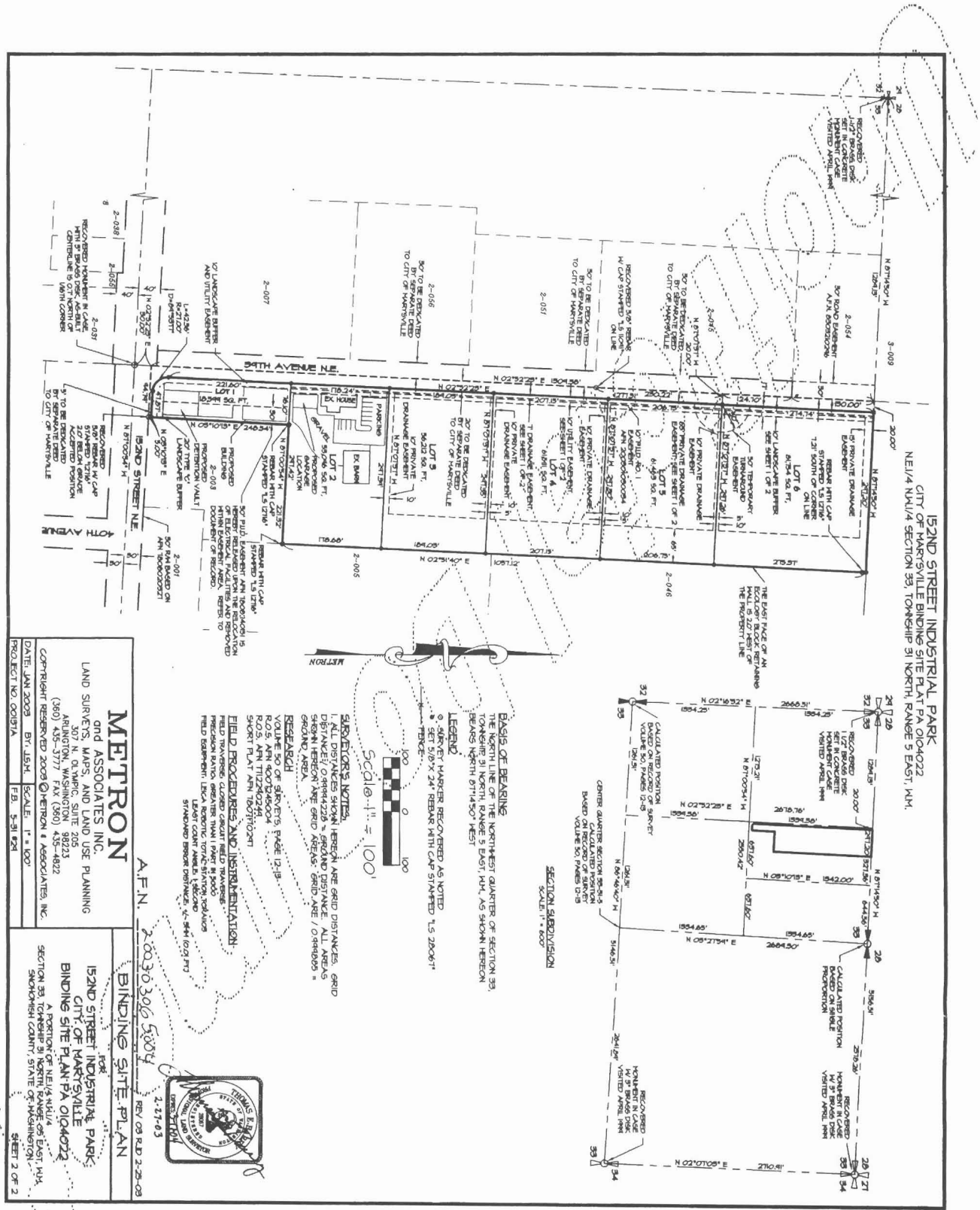
BINDING SITE PLAN

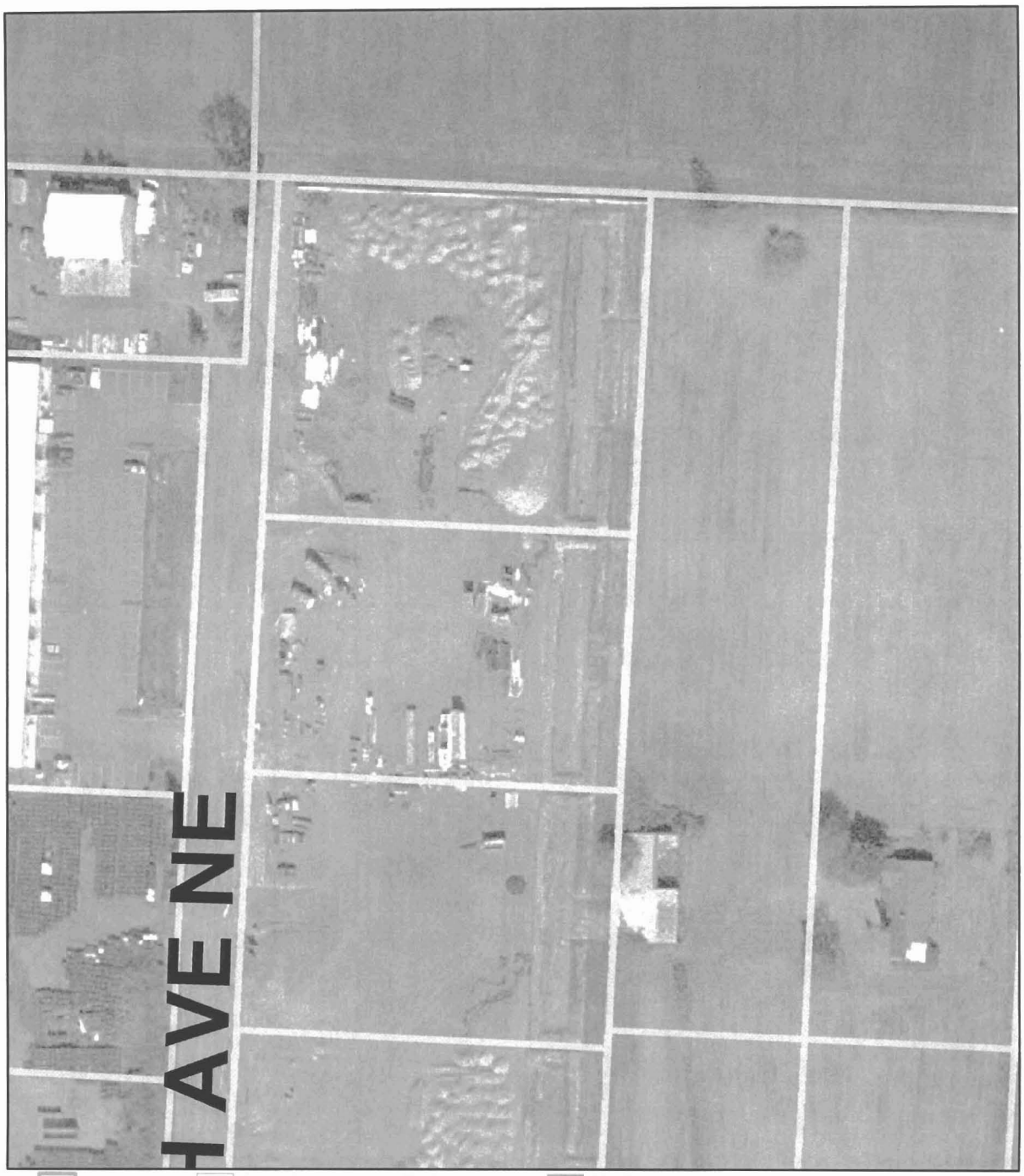
FOR

152ND STREET INDUSTRIAL PARK
CITY OF MARYSVILLE
BINDING SITE PLAN PA 0104022

A PORTION OF N.E.1/4 N.W.1/4
SECTION 33, TOWNSHIP 31 NORTH, RANGE 05 EAST, W.M.
SNOHOMISH COUNTY, STATE OF WASHINGTON

SHEET 1 OF 2


152ND STREET INDUSTRIAL PARK
CITY OF MARYSVILLE BINDING SITE PLAT PA 0104022
NE1/4 NW1/4 SECTION 33, TOWNSHIP 31 NORTH, RANGE 5 EAST, W.M.
39TH AVENUE N.E.
152ND STREET N.E.
40TH AVENUE
BASIS OF BEARING
LEGEND
SURVEYOR'S NOTES
FIELD PROCEDURES AND INSTRUMENTATION
RESEARCH
SECTION SUBDIVISION
METRON
and ASSOCIATES INC.
LAND SURVEYS, MAPS, AND LAND USE PLANNING
307 N. OLYMPIC, SUITE 205
ARLINGTON, WASHINGTON 98223
(360) 435-3777 FAX (360) 435-4822
COPYRIGHT RESERVED 2003 © METRON & ASSOCIATES, INC.
DATE: JAN 2003 BY: JSH SCALE: 1" = 100'
PROJECT NO. 00STA F.B. 5-31 #24
A.F.N. 200306305004
BINDING SITE PLAN
152ND STREET INDUSTRIAL PARK
CITY OF MARYSVILLE
BINDING SITE PLAN PA 0104022
A PORTION OF NE1/4 NW1/4
SECTION 33, TOWNSHIP 31 NORTH, RANGE 05 EAST, W.M.
SNOHOMISH COUNTY, STATE OF WASHINGTON
REV 03 R.L.D. 2-28-03
2-27-03
SHEET 2 OF 2



CITY OF MARYSVILLE
EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

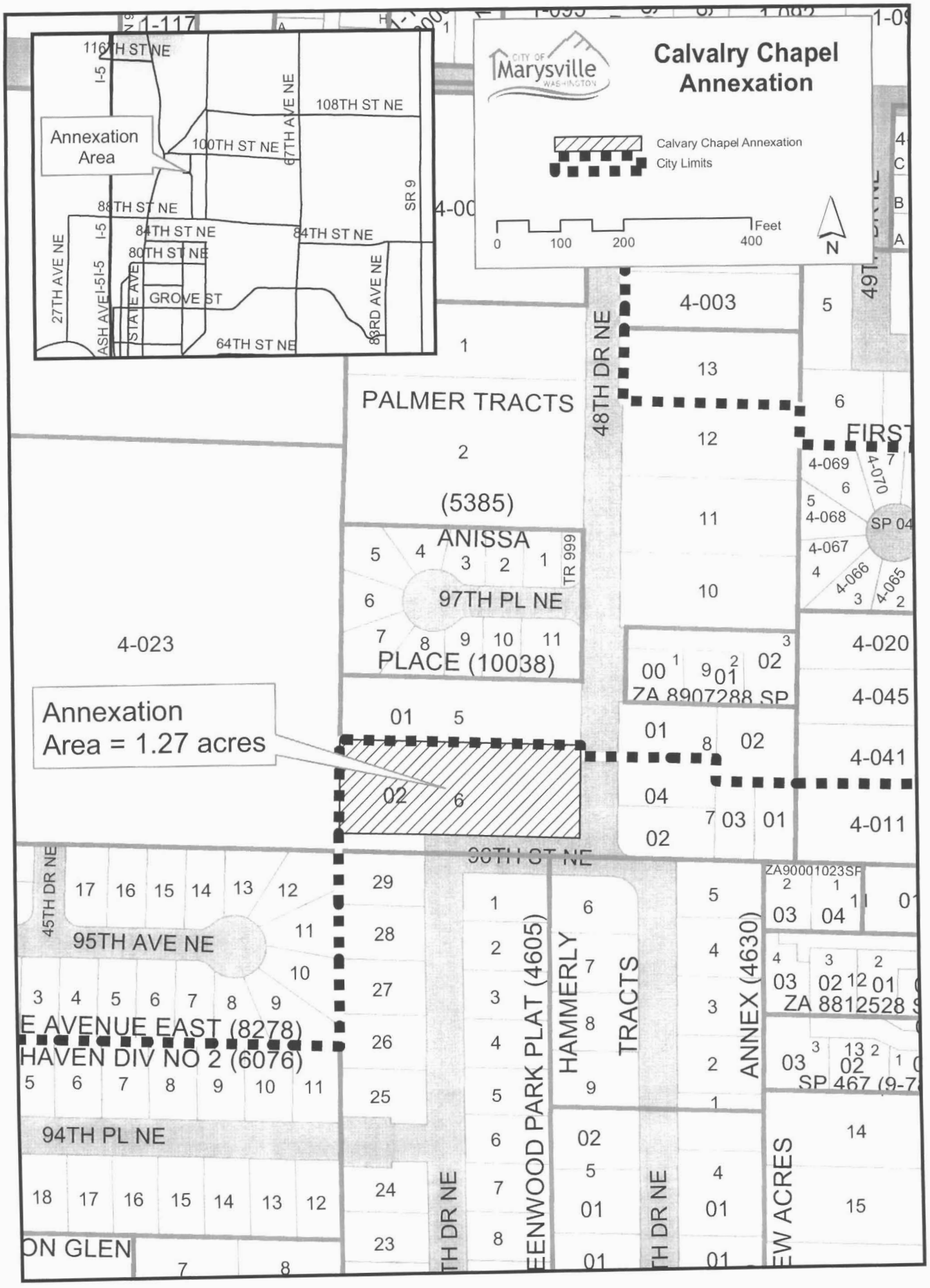
AGENDA ITEM: PA 07031 Calvary Annexation 10% Notice of Intention	AGENDA SECTION:
PREPARED BY: Cheryl Dungan, Senior Planner	AGENDA NUMBER:
ATTACHMENTS: 1. Annexation Boundary Map 2. Valuation 3. Resolution 2151	APPROVED BY: MAYOR DZ/C CAO MS
BUDGET CODE:	AMOUNT:

Calvary Chapel has submitted a Notice of Intention to annex their lot. The proposed annexation is approximately 1.25 acres in size and is located west of 48th Drive NE and north of 98th St NE. Calvary Chapel is considering purchase of property located north of their site to allow future expansion of the church. The property to the north is already within city limits. The annexation would enable a boundary line adjustment to accommodate the property sale. In addition, the annexation would enable the church to submit a building permit within a single jurisdiction if the sale is completed.

The subject property is located within the future annexation area (FAA) #7. Resolution 2151, which adopted the City's annexation policy, states that the City will initiate annexation of properties within FAA's 7, 8 and 9 by 2010. Prior to consideration of annexation requests within these areas, the City will further analyze the impacts of annexing these neighborhoods.

The annexation does not include any housing units or population. The city boundary currently includes the remainder of the west side of 48th Drive NE. Annexation of the church property would provide a more regular boundary.

RECOMMENDED ACTION: Planning Staff recommends acceptance of the 10% Notice of Intent and establishment of an annexation area for circulation of the 60% petition. The annexation should be subject to the City's bonded indebtedness and the city's future comprehensive plan land use designation for this area as adopted. The applicant should be required to submit a perimeter legal description for the proposed boundary.
COUNCIL ACTION:


Calvalry Chapel Annexation
CITY OF Marysville WASHINGTON
Calvary Chapel Annexation
City Limits
0 100 200 400 Feet
N
Annexation Area
116TH ST NE
108TH ST NE
100TH ST NE
88TH ST NE
84TH ST NE
80TH ST NE
GROVE ST
64TH ST NE
I-5
SR 9
27TH AVE NE
ASH AVE
STATE AVE
87TH AVE NE
83RD AVE NE
48TH DR NE
PALMER TRACTS
(5385) ANISSA PLACE (10038)
97TH PL NE
TR 999
Annexation Area = 1.27 acres
4-003
4-020
4-045
4-041
4-011
4-023
4-069
4-070
4-068
4-067
4-066
4-065
SP 04
ZA 8907288 SP
ZA90001023SP
ZA 8812528
SP 467 (9-7
95TH AVE NE
45TH DR NE
E AVENUE EAST (8278)
HAVEN DIV NO 2 (6076)
94TH PL NE
ON GLEN
HAMMERLY TRACTS
EENWOOD PARK PLAT (4605)
ANNEX (4630)
EW ACRES

Calvary Chapel Annexation 10%
04/27/2007

Tax Account #	Owner	Assessed Value
00538500000502	Calvary Chapel of Marysville	$329,900
	TOTAL SIGNED NOTICE OF INTENTIONS	**329,900**
	% Signed	**100%**
SUMMARY:		
	TOTAL VALUE ANNEX.	**329,900**

cc: Com. Dev
Orig: File

CITY OF MARYSVILLE
Marysville, Washington

RESOLUTION NO. 2151

A RESOLUTION OF THE CITY OF MARYSVILLE ADOPTING AN ANNEXATION POLICY AND REPEALING RESOLUTION NO. 1939.

WHEREAS, in September 1999 the Marysville City Council adopted Resolution No. 1939 relating to the annexation policy of the City; and

WHEREAS, since the adoption of Resolution No. 1939 the Marysville City Council adopted Ordinance No. 2569 adopting an updated Comprehensive Plan for the City of Marysville and establishing planning goals, policies and implementation strategies for the Marysville Urban Growth Area;

WHEREAS, the Marysville City Council has recently reviewed the City's annexation policy to determine whether it is consistent with current practices, policies and procedures;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON AS FOLLOWS:

Section 1. The following guidelines should be considered before annexations to the City of Marysville are initiated and at the time annexation proposals are reviewed by the City Council:

1. An annexation shall not be accepted unless it is located within the Marysville Urban Growth Area ("UGA") and within Marysville's adopted comprehensive land use plan.

2. The City hereby establishes a priority sequence to annex the UGA as identified in this resolution. Future annexation area boundaries are shown in Exhibit A. The priority sequence identifies preferred timing of future annexation areas ("FAA's") within the Marysville UGA.

3. The City will support and promote timely annexation of the entire UGA in accordance with the following priority sequence:

   a. The City of Marysville will initiate annexation of FAA's 1 through 3 through the direct petition method by 2005.

   b. The City of Marysville will initiate annexation of FAA's 4, 5 and 11 prior to

development applications and availability of water and sewer service by the City of Marysville.

c. The City of Marysville will initiate annexation of FAA 6 by 2006. Any UGA expansions within FAA 6 will be required to annex prior to development applications or availability of water and sewer service by the City of Marysville.

d. The City of Marysville will initiate annexation of properties within FAA's 7, 8 and 9 by 2010. Prior to consideration of annexation requests within these areas, the City will further analyze the impacts of annexing these neighborhoods.

e. The City will further analyze the impacts of annexation of FAA 10 and produce a schedule for initiating an annexation for FAA 10 or a portion thereof. In the interim, the City will discourage annexation requests within FAA 10.

f. The City will encourage aggregation of parcels for annexation. Where appropriate, the City will encourage annexation of the FAA in it's entirety to produce a more logical service boundary. Where appropriate to meet the objectives outlined in RCW 36.93.180, the City shall aggregate multiple annexation petitions and use annexation covenants to enlarge boundary proposals.

g. The City will consider smaller annexations within FAA's 2, 3, 4, 5, 6, 7, 8, 9 and 11, on a case-by-case basis when such annexations comply with the objectives outlined in RCW 36.93.180 and are supported by the technical review of factors to be considered in annexation proposals which are listed below.

4. The City, through its utility codes and utility planning, will support and promote annexation and logical extension of urban services within the UGA to implement the City's adopted comprehensive land use plan. Implementation measures will include adherence to the City's land use designations, development standards, and neighborhood annexation and development strategies contained within the comprehensive plan. If the property is located within the Marysville UGA, water and sewer availability may be subject to submittal of an annexation covenant or annexation petition.

5. The City will enter into interlocal agreements with Snohomish County relating to annexation, urban development standards, and reciprocal traffic and park impact fee mitigation.

6. In considering all annexations the City should attempt to achieve the following Boundary Review Board objectives which are specified in RCW 36.93.180:

   a. Preservation of natural neighborhoods and communities;

   b. Use of physical boundaries including, but not limited to, bodies of water, highways and land contours;

c. Creation and preservation of logical service areas;

d. Prevention of abnormally irregular boundaries;

e. Discouragement of multiple incorporations of small cities and encouragement of incorporation of cities in excess of 10,000 population in heavily-populated urban areas;

f. Adjustment of impractical boundaries;

g. Incorporation as cities and towns or annexation to cities or towns of unincorporated areas that are urban in character;

h. Protection of agricultural and rural lands that are designated for long-term productive agricultural and resource use by a comprehensive plan adopted by the county legislative authority.

7. Pursuant to RCW 35A.14.200, the City should consider the following factors with respect to all annexation proposals. Larger or heavily populated annexations should be subject to more in-depth review and, where appropriate, fiscal analysis.

a. The immediate and prospective population of the area proposed to be annexed, the configuration of the area, land use and land uses, comprehensive plans and zoning, per capita assessed valuation, topography, natural boundaries and drainage basins, the likelihood of significant growth in the area and in the adjacent incorporated and unincorporated areas during the next several years, location and coordination of community facilities and service; and

b. The need for municipal services and availability of such services, effect of ordinances and governmental codes, regulations and resolutions on existing uses, existing agreements, interlocal agreements, covenants, LIDs or ULIDs, present cost and adequacy of governmental services and controls, the probable effect of the annexation proposal or alternatives on cost and adequacy of services and controls in the area and adjacent area, the effect of the finances, debt structure and contractual obligations and rights of all affected governmental units; and

c. The effect of the annexation proposal or alternatives on adjacent areas, on mutual economic and social interests, and on the local governmental structure of the County.

Section 2. Repealer. Resolution No. 1939, adopted on September 13, 1999, is hereby REPEALED for the reason that it is replaced by this resolution.

PASSED by the City Council and APPROVED by the Mayor this 25th day of July, 2005.

CITY OF MARYSVILLE

By Dennis L Kendall
DENNIS L. KENDALL, Mayor

ATTEST:

By Gerry Becker
GERRY BECKER, City Clerk

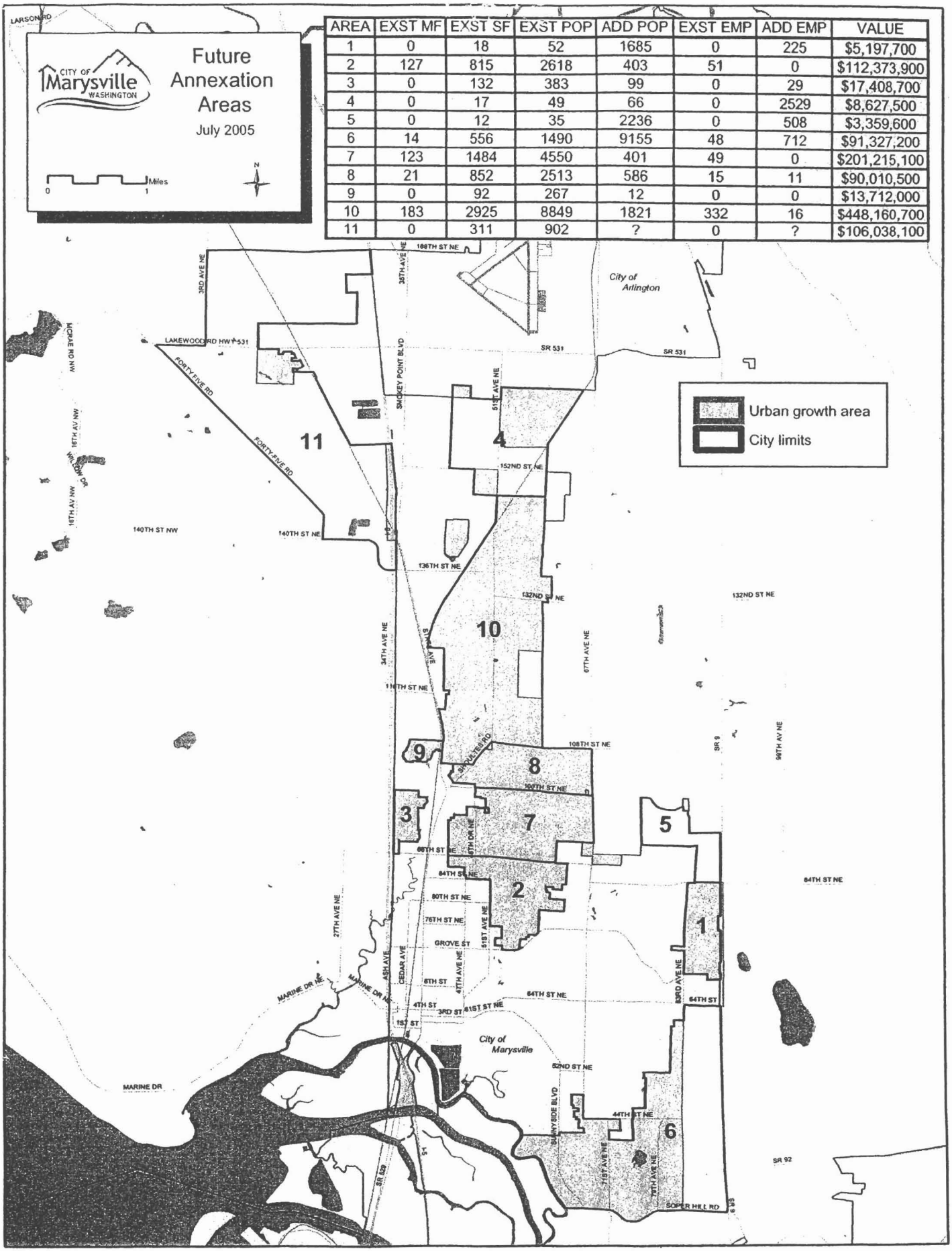
Approved as to form:

By Grant Weed
GRANT K. WEED, City Attorney

Date of Publication: 08/03/05

Effective Date (~~5 days after publication~~): 7/25/05

RESOLUTION -4
/annex.res



AREA	EXST MF	EXST SF	EXST POP	ADD POP	EXST EMP	ADD EMP	VALUE
1	0	18	52	1685	0	225	$5,197,700
2	127	815	2618	403	51	0	$112,373,900
3	0	132	383	99	0	29	$17,408,700
4	0	17	49	66	0	2529	$8,627,500
5	0	12	35	2236	0	508	$3,359,600
6	14	556	1490	9155	48	712	$91,327,200
7	123	1484	4550	401	49	0	$201,215,100
8	21	852	2513	586	15	11	$90,010,500
9	0	92	267	12	0	0	$13,712,000
10	183	2925	8849	1821	332	16	$448,160,700
11	0	311	902	?	0	?	$106,038,100

CITY OF MARYSVILLE
EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

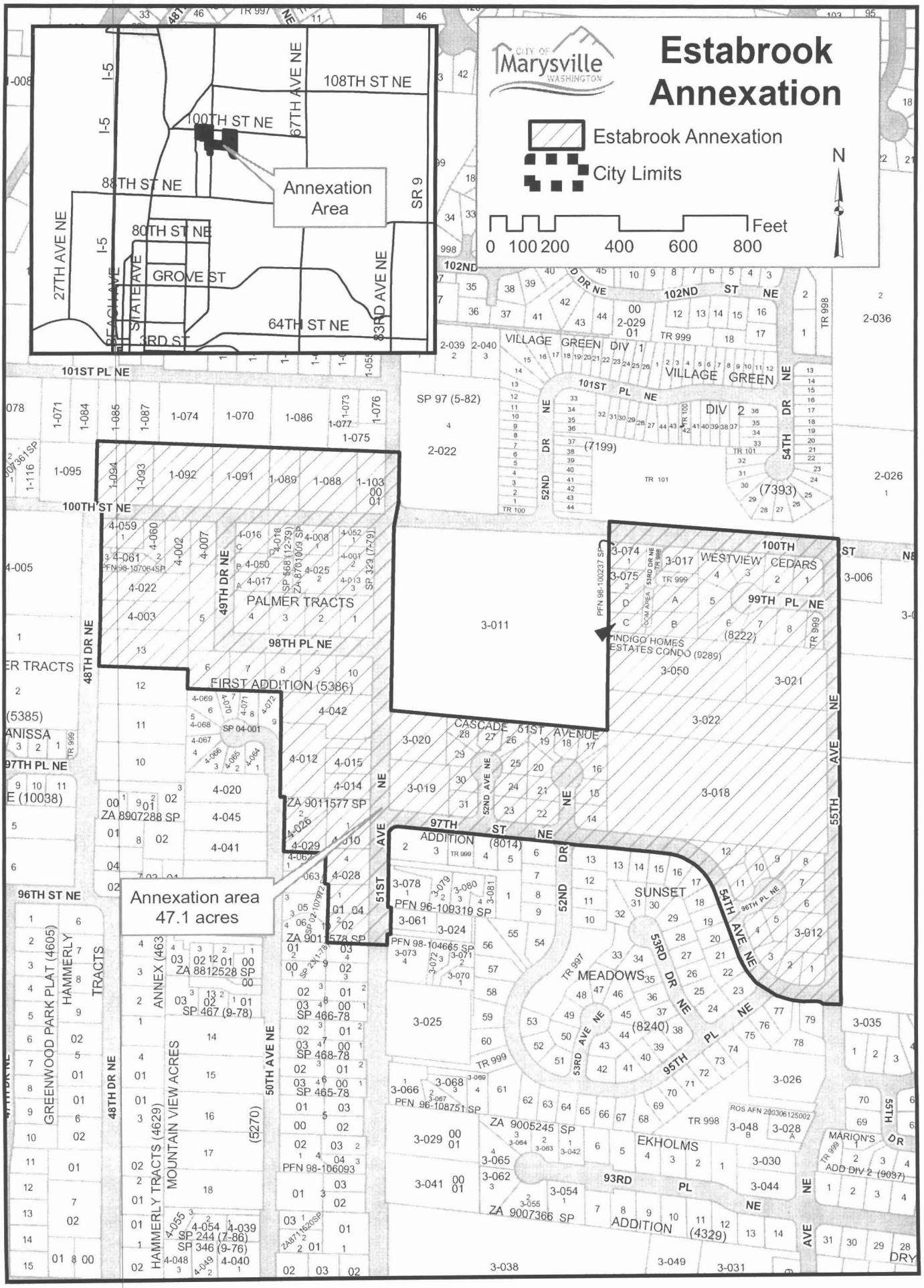
AGENDA ITEM: PA 07017 Estabrook Annexation 10% Notice of Intention	
PREPARED BY: Cheryl Dungan, Senior Planner	AGENDA NUMBER:
ATTACHMENTS: 1. Annexation Boundary Map 2. Resolution 2151 3. Final Bill Report SSB 6686	APPROVED BY: MAYOR / CAO
BUDGET CODE:	AMOUNT:

Tom Estabrook submitted an 10% Notice of Intention to annex approximately 47.1 acres to the City of Marysville. The annexation is generally located north and south of 100th St NE, west of 55th Ave and east of the current city limits boundary. This annexation represents multiple parcels and an estimated population of 400 persons.

The subject property is located within the future annexation area (FAA) #7. Resolution 2151, which adopted the City's annexation policy, states that the City will initiate annexation of properties within FAA's 7, 8 and 9 by 2010. Prior to consideration of annexation requests within these areas, the City will further analyze the impacts of annexing these neighborhoods.

The Washington State Legislature recently passed Senate Bill 6686 which provides tax incentives to city's with a population of less than 400,000 which is located in a county with a population of greater than 600,000. In order to qualify for the tax, the city must commence annexation of an area having a population of over 10,000 prior to January 1, 2010, and must determine by resolution or ordinance that the projected cost to provide services to the annexation area exceeds the projected revenue from the annexation. Staff is currently analyzing annexation boundaries that would allow the city to take advantage of SB 6686 tax incentives. The Estabrook Annexation is located in potential expansion alternatives, therefore staff recommends council deny the annexation as proposed until additional analysis of annexations within FAA's 7, 8 and 9 is complete.

RECOMMENDED ACTION: CD staff recommends Council reject the 10% Notice of Intention for the proposed Estabrook Annexation at this time.
COUNCIL ACTION:


Estabrook Annexation
CITY OF Marysville WASHINGTON
Estabrook Annexation
City Limits
N
0 100 200 400 600 800 Feet
Annexation Area
I-5
108TH ST NE
100TH ST NE
67TH AVE NE
88TH ST NE
SR 9
80TH ST NE
27TH AVE NE
BEACH AVE
STATE AVE
GROVE ST
64TH ST NE
83RD AVE NE
3RD ST
Annexation area
47.1 acres
101ST PL NE
100TH ST NE
98TH PL NE
97TH PL NE
96TH ST NE
102ND ST NE
99TH PL NE
97TH ST NE
VILLAGE GREEN DIV 1
VILLAGE GREEN DIV 2
PALMER TRACTS
FIRST ADDITION (5386)
WESTVIEW CEDARS
INDIGO HOMES ESTATES CONDO (9289)
CASCADE 51ST AVENUE
97TH ADDITION (8014)
SUNSET MEADOWS (8240)
EKHOLMS ADDITION (4329)
GREENWOOD PARK PLAT (4605)
HAMMERLY TRACTS
MOUNTAIN VIEW ACRES (5270)
HAMMERLY TRACTS (4629)
ANNEX (463)
MARION'S ADD DIV 2 (9037)
48TH DR NE
49TH DR NE
50TH AVE NE
51ST AVE NE
52ND DR NE
53RD DR NE
54TH AVE NE
55TH AVE NE
93RD PL NE
95TH PL NE
SP 97 (5-82)
ZA 9011577 SP
ZA 8907288 SP
ZA 8812528 SP
SP 467 (9-78)
SP 466-78
SP 468-78
SP 465-78
PFN 98-106093
ZA 9005245 SP
ZA 9007366 SP
PFN 96-109319 SP
PFN 98-104665 SP
PFN 96-108751 SP
ROS AFN 200306125002

FINAL BILL REPORT
SSB 6686

C 361 L 06
Synopsis as Enacted

Brief Description: Authorizing a local sales and use tax that is credited against the state sales and use tax.

Sponsors: Senate Committee on Ways & Means (originally sponsored by Senators Prentice, Esser, Kastama, Johnson, Kline, Finkbeiner, Weinstein, Keiser, Berkey and McAuliffe).

Senate Committee on Ways & Means
House Committee on Finance

Background: Under the state's Growth Management Act, counties establish urban growth areas (UGAs) in collaboration with cities. Within a UGA, counties are the providers of regional services, and cities are the providers of local services, until the UGA either becomes part of an existing city through annexation or incorporates. In 2004, the Legislature directed the Department of Community, Trade, and Economic Development (CTED) to study the progress of annexation and incorporation in six urban counties and to identify both barriers and incentives to fully achieving annexation or incorporation of the UGAs in these counties. Lack of funding for municipal services during the transition period following annexation was one of the barriers identified by cities, and a temporary utility surtax was one of the incentives.

Summary: Beginning July 1, 2007, a city with a population less than 400,000 and which is located in a county with a population greater than 600,000 that annexes an area consistent with its comprehensive plan may impose a sales or use tax. The tax must be taken as a credit against the sales tax, so it will not be an additional tax to a consumer.

In order to qualify for the tax, the city commences annexation of an area having a population of over 10,000 prior to January 1, 2010, and must determine by resolution or ordinance that the projected cost to provide services to the annexation area exceeds the projected revenue from the annexation area.

The rate of the tax is 0.1 percent for each annexation area with a population over 10,000 and 0.2 percent for an annexation area over 20,000. The maximum rate of credit the city can impose is 0.2 percent. The tax imposed must only be imposed at the beginning of a fiscal year and must continue for no more than ten years from the date it is imposed.

All revenue from the tax must be used to provide, maintain, and operate municipal services for the annexation area. The revenues may not exceed the difference of that which the city deems necessary to provide services for the annexation area and the general revenue received from the annexation. If the revenues due exceed that which is needed to provide the services, the tax must be suspended for the remainder of the fiscal year.

Prior to March 1st of each year, the city must notify the department of the maximum amount of distributions it is allowed to receive for the upcoming fiscal year.

Votes on Final Passage:

Senate	38	10
House	75	23

Effective: June 7, 2006

cc: Com. Dev
Rij: File

CITY OF MARYSVILLE
Marysville, Washington

RESOLUTION NO. 2151

A RESOLUTION OF THE CITY OF MARYSVILLE ADOPTING AN ANNEXATION POLICY AND REPEALING RESOLUTION NO. 1939.

WHEREAS, in September 1999 the Marysville City Council adopted Resolution No. 1939 relating to the annexation policy of the City; and

WHEREAS, since the adoption of Resolution No. 1939 the Marysville City Council adopted Ordinance No. 2569 adopting an updated Comprehensive Plan for the City of Marysville and establishing planning goals, policies and implementation strategies for the Marysville Urban Growth Area;

WHEREAS, the Marysville City Council has recently reviewed the City's annexation policy to determine whether it is consistent with current practices, policies and procedures;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON AS FOLLOWS:

Section 1. The following guidelines should be considered before annexations to the City of Marysville are initiated and at the time annexation proposals are reviewed by the City Council:

1. An annexation shall not be accepted unless it is located within the Marysville Urban Growth Area ("UGA") and within Marysville's adopted comprehensive land use plan.

2. The City hereby establishes a priority sequence to annex the UGA as identified in this resolution. Future annexation area boundaries are shown in Exhibit A. The priority sequence identifies preferred timing of future annexation areas ("FAA's") within the Marysville UGA.

3. The City will support and promote timely annexation of the entire UGA in accordance with the following priority sequence:

   a. The City of Marysville will initiate annexation of FAA's 1 through 3 through the direct petition method by 2005.

   b. The City of Marysville will initiate annexation of FAA's 4, 5 and 11 prior to

development applications and availability of water and sewer service by the City of Marysville.

c. The City of Marysville will initiate annexation of FAA 6 by 2006. Any UGA expansions within FAA 6 will be required to annex prior to development applications or availability of water and sewer service by the City of Marysville.

d. The City of Marysville will initiate annexation of properties within FAA's 7, 8 and 9 by 2010. Prior to consideration of annexation requests within these areas, the City will further analyze the impacts of annexing these neighborhoods.

e. The City will further analyze the impacts of annexation of FAA 10 and produce a schedule for initiating an annexation for FAA 10 or a portion thereof. In the interim, the City will discourage annexation requests within FAA 10.

f. The City will encourage aggregation of parcels for annexation. Where appropriate, the City will encourage annexation of the FAA in it's entirety to produce a more logical service boundary. Where appropriate to meet the objectives outlined in RCW 36.93.180, the City shall aggregate multiple annexation petitions and use annexation covenants to enlarge boundary proposals.

g. The City will consider smaller annexations within FAA's 2, 3, 4, 5, 6, 7, 8, 9 and 11, on a case-by-case basis when such annexations comply with the objectives outlined in RCW 36.93.180 and are supported by the technical review of factors to be considered in annexation proposals which are listed below.

4. The City, through its utility codes and utility planning, will support and promote annexation and logical extension of urban services within the UGA to implement the City's adopted comprehensive land use plan. Implementation measures will include adherence to the City's land use designations, development standards, and neighborhood annexation and development strategies contained within the comprehensive plan. If the property is located within the Marysville UGA, water and sewer availability may be subject to submittal of an annexation covenant or annexation petition.

5. The City will enter into interlocal agreements with Snohomish County relating to annexation, urban development standards, and reciprocal traffic and park impact fee mitigation.

6. In considering all annexations the City should attempt to achieve the following Boundary Review Board objectives which are specified in RCW 36.93.180:

   a. Preservation of natural neighborhoods and communities;

   b. Use of physical boundaries including, but not limited to, bodies of water, highways and land contours;

c. Creation and preservation of logical service areas;

d. Prevention of abnormally irregular boundaries;

e. Discouragement of multiple incorporations of small cities and encouragement of incorporation of cities in excess of 10,000 population in heavily-populated urban areas;

f. Adjustment of impractical boundaries;

g. Incorporation as cities and towns or annexation to cities or towns of unincorporated areas that are urban in character;

h. Protection of agricultural and rural lands that are designated for long-term productive agricultural and resource use by a comprehensive plan adopted by the county legislative authority.

7. Pursuant to RCW 35A.14.200, the City should consider the following factors with respect to all annexation proposals. Larger or heavily populated annexations should be subject to more in-depth review and, where appropriate, fiscal analysis.

   a. The immediate and prospective population of the area proposed to be annexed, the configuration of the area, land use and land uses, comprehensive plans and zoning, per capita assessed valuation, topography, natural boundaries and drainage basins, the likelihood of significant growth in the area and in the adjacent incorporated and unincorporated areas during the next several years, location and coordination of community facilities and service; and

   b. The need for municipal services and availability of such services, effect of ordinances and governmental codes, regulations and resolutions on existing uses, existing agreements, interlocal agreements, covenants, LIDs or ULIDs, present cost and adequacy of governmental services and controls, the probable effect of the annexation proposal or alternatives on cost and adequacy of services and controls in the area and adjacent area, the effect of the finances, debt structure and contractual obligations and rights of all affected governmental units; and

   c. The effect of the annexation proposal or alternatives on adjacent areas, on mutual economic and social interests, and on the local governmental structure of the County.

Section 2. Repealer. Resolution No. 1939, adopted on September 13, 1999, is hereby REPEALED for the reason that it is replaced by this resolution.

PASSED by the City Council and APPROVED by the Mayor this 25th day of July, 2005.

CITY OF MARYSVILLE

By Dennis L Kendall
DENNIS L. KENDALL, Mayor

ATTEST:

By Gerry Becker
GERRY BECKER, City Clerk

Approved as to form:

By Grant Weed
GRANT K. WEED, City Attorney

Date of Publication: 08/03/05

Effective Date (~~5 days after publication~~): 7/25/05

RESOLUTION -4
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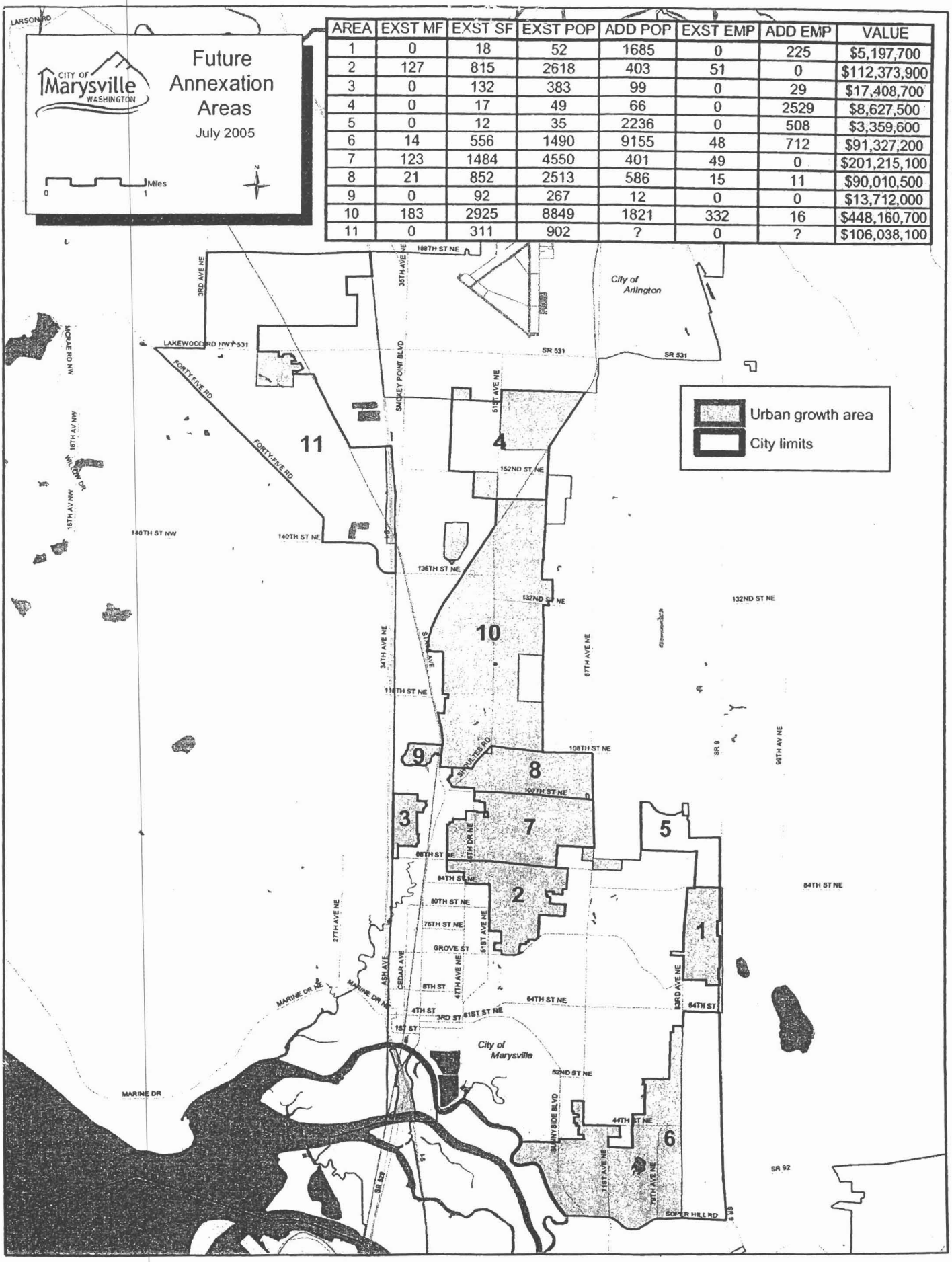

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9	0	92	267	12	0	0	$13,712,000
10	183	2925	8849	1821	332	16	$448,160,700
11	0	311	902	?	0	?	$106,038,100

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Low Impact Development (LID) proposed code amendments, PA06-066.	AGENDA SECTION:
PREPARED BY: Steve Roberge, Senior Planner	AGENDA NUMBER:
ATTACHMENTS: 1. Draft Ordinance. 2. Low Impact Development Technical Guidance Manual Facts Sheet. 3. Memos to the Planning Commission. 4. Strikeout/underline version of proposed code amendments. 5. Comment letters. 6. Planning Commission Minutes.	APPROVED BY: MAYOR: DZK CAO: MS
BUDGET CODE:	AMOUNT:

The proposed code amendments would provide for Low Impact Development (LID) to occur in the City. LID is defined as:

> *Low Impact Development (LID) is a stormwater management strategy that emphasizes conservation and use of existing natural site features integrated with disturbed, small scale stormwater controls to more closely mimic natural hydrologic patterns...*[1]

The proposed regulations are intended to aid in alleviating some negative impacts associated with stormwater including health, safety, and welfare concerns associated with development. The revisions give an applicant the option of using the standards.

In 2005, the City of Marysville and Snohomish County received grant assistance from the Puget Sound Action Team (PSAT) and AHBL to help review and recommend new LID codes, standards, and amendments.

Attached with the proposed ordinance is a facts sheet about the LID Technical Guidance Manual, three (3) memos which will aid in understanding the ordinance as proposed, a strikeout/underline version of the code changes, three (3) comments letters, and the Planning Commission minutes for February 27, 2007. The February 13, 2007, minutes have not been approved by the Planning Commission yet but should be available prior to the regular City Council Meeting.

This proposal would amend the Municipal Code in the following areas:

- 12.02A- Street Department
- 14.15- On-Site Storm Water Drainage
- 14.16- Public Storm Drainage System
- 14.17- Private Storm Water Disposal Systems
- 19.06- Technical Terms and Land Use Definitions
- 19.16- Development Standards- Landscaping
- 19.24- Sensitive Areas Management

[1] Low Impact Development, Technical Guidance Manual for Puget Sound, January 2005, Pg 1.

- 19.28- Clearing, Grading, Filling, and Erosion Control
- 20.12- Preliminary Subdivision Review
- 20.24- Land Division Requirements
- New Chapter 19.49- Low Impact Development

RECOMMENDED ACTION: Planning Staff recommends Council approve the LID amendments as recommended by the Planning Commission. Other options include: 1) remand the ordinance to the Planning Commission for additional review; 2) disapprove the ordinance; or 3) modifying the code and hold additional public hearing(s).
COUNCIL ACTION:

CITY OF MARYSVILLE
Marysville, Washington

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF MARYSVILLE, WASHINGTON, AMENDING THE CITY'S DEVELOPMENT REGULATIONS RELATED TO LOW IMPACT DEVELOPMENT AND AMENDING CHAPTERS 12.02A, 14.15, 14.16, 14.17, 19.06, 19.16, 19.24, 19.28, 20.12, AND 20.24, AND ESTABLISHING A NEW CHAPTER 19.49, OF THE MARYSVILLE MUNICIPAL CODE.

WHEREAS, the City Council of the City of Marysville finds that from time to time it is necessary and appropriate to review and revise the City's regulations governing development, such as those set forth in the City's Streets and Sidewalks Code (Title 12 MMC), Water and Sewers Code (Title 14 MMC), Zoning Code (Title 19 MMC), and Subdivision Code (Title 20 MMC); and

WHEREAS, the City's Planning Commission is recommending that the City adopt development regulations related to low impact development in order to encourage developers to utilize more flexible land use development approaches, which can result in projects that accomplish the goals of the Comprehensive Plan and that further the public interest of the City and its citizens; and

WHEREAS, the amendments proposed for adoption in this ordinance are consistent with the following required findings of MMC 19.56.030:

(1) The amendments are consistent with the purposes of the Comprehensive Plan;
(2) The amendments are consistent with the purpose of Title 19 MMC;
(3) There have been significant changes in the circumstances to warrant a change;
(4) The benefit or cost to the public health, safety and welfare is sufficient to warrant the action; and

WHEREAS, the Planning Commission discussed the above-referenced amendments during public meetings February 13 and February 27, 2007; and

WHEREAS, after providing notice to the public as required by law, on February 27, 2007, the Marysville Planning Commission held a public hearing on proposed changes to the City's development regulations; and

WHEREAS, at a public meeting on April 14, 2007, the Marysville City Council reviewed and considered the amendments to the City's development regulations proposed by the Marysville Planning Commission; and

WHEREAS, the City of Marysville has submitted the proposed development regulation revisions to the Washington State Department of Community, Trade, and Economic Development as required by RCW 36.70A.106; and

WHEREAS, the City has complied with the requirements of the State Environmental Policy Act, Ch.43.21C RCW, (SEPA) by adopting a determination of non-significance for the adoption of the proposed revisions to the City's development regulations;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON DO ORDAIN AS FOLLOWS:

Section 1: Chapter 12.02A MMC is hereby amended by amending Subsection (4) of MMC 12.02A.030, Subsection (1) of MMC 12.02A.090, and Subsection (3) of 12.02A.100 to read as follows:

12.02A.030 General specifications.

...

(4) Existing drainage ditches, culverts, etc., shall be kept clean and protected from impacts that may jeopardize their function at all times. Temporary diversion of any drainage system will not be permitted without the consent of the city engineer. Any drainage culvert tile, catch basins, manholes, bioretention facility, pervious pavement, etc., disturbed by excavation or other construction activities shall be replaced with new materials or repaired as directed by the city engineer.

...

12.02A.090 Frontage improvements required.

(1) The term "frontage improvements" as used in this section shall refer to the construction, reconstruction, or repair of the following facilities along the full abutting public street frontage of property being developed:

(a) Curbs, gutters, and sidewalks, except that curbs and gutters may be waived by the city engineer when street drainage will be managed via a bioretention facility within the right-of-way. Flow through curbs may be required by the City Engineer;

(b) Underground storm drainage facilities, except that surface facilities may be approved by the city engineer pursuant to MMC 14.15.061;

c) Patching the street from its preexisting edge to the new curb line;

(d) Overlayment of the existing public street to its centerline.

All such frontage improvements shall be constructed to city specifications.

...

12.02A.100 Minimum access requirements.

No development permits or short plats shall be issued or approved by the city for any lot, parcel, or tract which does not comply with the following minimum access requirements:

...

(3) Each and every lot having access to a private road shall have responsibility for maintenance of such private road and associated stormwater drainage facilities unless specifically designated for maintenance by the City.

...

Section 2. Ch. 14.15 MMC is hereby amended by amending MMC 14.15.020 and Subsections (2) and (7) of MMC 14.15.050 and adding MMC 14.15.062 to read as follows:

14.15.020 Definitions.

For the purpose of this chapter, certain terms, phrases, words and their derivatives shall be construed as specified in this section. Words used in the singular include the plural, and the

plural the singular. The words "shall," "will" and "must" are mandatory; the words "should" and "may" are permissive. When any definition in this chapter conflicts with definitions in the manual or any other ordinance of the city, that which provides more environmental protection shall apply unless specifically provided otherwise in this chapter.

(1) "Adjustment" means a project proposal that has received approval as providing substantially equivalent environmental protection while maintaining the objectives of safety, function, and facility maintenance based upon sound engineering.

(2) "Applicant" means any person who has applied for a development permit or approval.

(3) "Basin plan" means a plan that assesses, evaluates, and proposes solutions to existing and potential future impacts to the beneficial uses of, and the physical, chemical, and biological properties of waters of the state within a basin.[1] A plan should include but not be limited to recommendations for:

(a) Storm water requirements for new development and redevelopment;

(b) Capital improvement projects;

(c) Land use management through identification and protection of critical areas, comprehensive land use and transportation plans, zoning regulations, site development standards, and conservation areas;

(d) Source control activities including public education and involvement, and business programs;

(e) Other targeted storm water programs and activities, such as maintenance, inspections, and enforcement;

(f) Monitoring; and

(g) An implementation schedule and funding strategy.

(4) "Best management practices (BMPs)" refers to the schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices, that when used singly or in combination, prevent or reduce pollution of water and have been approved by the engineer. BMPs include, but are not limited to, infiltration, retention and/or detention, dispersion, amended soils, biofiltration facilities, bioretention facilities, open ditches with check dams, filter fabric strips, oil/water separators, wet ponds, constructed wetlands, erosion and sedimentation control, and other treatment/abatement facilities.

(5) "Biofiltration facility" means the simultaneous processes of filtration, absorption, and biological uptake of pollutants in storm water to take place when runoff flows over and through vegetated treatment facilities.

(6) "Bioretention" means a terrestrial-based (upland as opposed to wetland), water quality and water quantity control practice using the chemical, biological, and physical properties of plants, microbes, and soils for removal of pollutants from storm water runoff. Some of the processes that may take place in a bioretention facility include: sedimentation, absorption, filtration, volatilization, ion exchange, decomposition, phytoremediation, bioremediation, and storage capacity. Bioretention may be designed to help mimic predevelopment hydrology.

(7) "City planner" also means community development director.

(8) "Clearing" means the destruction and removal of vegetation by manual, mechanical or chemical methods.

(9) "Comprehensive drainage plan" means a detailed analysis adopted by the city which compares the capabilities and needs for runoff accommodation due to various combinations of development, land use, structural and nonstructural management alternatives. The plan recommends the form, location, and extent of quantity and quality control measures which would

satisfy legal constraints, water quality standards and community standards and identifies the institutional and funding requirements for plan implementation.

(10) "Computations" means calculations, including coefficients and other pertinent data made to determine the drainage plan with flow of water given in cubic feet per second (cfs).

(11) "Construction storm water pollution prevention plan" or "construction SWPPP" means a plan that includes a narrative, drawings, and details for describing construction practices, stabilization techniques, and structural BMPs that are to be implemented to prevent erosion and sedimentation, and control other pollutants at a construction site.

(12) "Conveyance system" means the drainage facilities, both natural and manmade, which collect, contain, and provide for the flow of surface and storm water from the highest points on the land down to a receiving water. The natural elements of the conveyance system include swales and small drainage courses, streams, rivers, lakes, and wetlands. The human-made elements of the conveyance system include gutters, ditches, pipes, channels, and most retention/detention facilities.

(13) "Current conditions" means the state, status, or conditions (land use, impervious surfaces, topography, soils, and surface water flows) present of the subject property at the time the analysis is conducted.

(14) "Cut and fill" means the process of earth moving by excavating part of an area and using the excavated material for adjacent embankments or fill areas.

(15) "Department" means the public works or community development department of the city of Marysville, as appropriate for capital or private development projects.

(16) "Design storm" means a rainfall (or other precipitation) event or pattern of events for use in analyzing and designing drainage facilities, specifying both the return period in years and the duration in hours.

(17) "Detention" means the release of storm water runoff from the site at a slower rate than it is collected by the storm water drainage system, the difference being held in temporary storage.

(18) "Detention facility" means an above or below ground facility, such as a pond or tank, that temporarily stores storm water runoff and subsequently releases it at a slower rate than it is collected by the drainage facility system. There is little or no infiltration of stored storm water.

(19) "Developed conditions" means the state, status, or condition of the subject property at the time the proposed project has been completed, which may include existing buildings, impervious areas, and topography as is.

(20) "Developer" means the individual(s) or corporation(s) or governmental agency(ies) applying for the permits or approvals described in MMC 14.15.030.

(21) "Development" means any artificial change to property, including but not limited to building or other structures, mining, dredging, filling, all land-disturbing activities, clearing, grading, landscaping, paving, excavation, or drilling operations, any activity that requires a permit or approval, including but not limited to a building permit, grading permit, shoreline substantial development permit, conditional use permit, unclassified use permit, zoning variance or reclassification, planned unit development, subdivision, short subdivision, master plan development, building site plan, or right-of-way use permit.

(22) "Developmental coverage" means all developed areas within the subject property including but not limited to rooftops, driveways, carports, accessory buildings, parking areas, and any other impervious surfaces. During construction, "development coverage" includes the above in addition to the full extent of any alteration of previously occurring soils, slope, or vegetation due to grading, temporary storage, access areas, or other short-term causes.

(23) "Director of public works" or "director" means the director of the public works department or his/her designee.

(24) "Drainage area" means the watershed (acreage) contributing surface water runoff to and including the subject property.

(25) "Drainage site" means a geographical area that serves a common or combined use including but not limited to shopping malls and strips, condominiums, apartment complexes, office parks, and housing tracts. A site may include one or more parcels and/or include one or more buildings. See also "Development."

(26) "Drainage system" means the system of collecting, conveying, and storing surface and storm water runoff. Drainage facilities shall include but not be limited to all surface and storm water runoff conveyance and containment facilities including streams, pipelines, channels, ditches, swamps, lakes, wetlands, closed depressions, infiltration facilities, retention/detention facilities, erosion/sedimentation control facilities, and other drainage structures and appurtenances, both natural and manmade.

(27) "Drainage treatment/abatement facilities" means any facilities installed or constructed in conjunction with a drainage plan for the purpose of treating urban runoff to improve water quality, excluding retention or detention facilities.

(28) "Effective impervious area" means those impervious surfaces that are connected via sheet flow or discrete conveyance to a drainage system.

(29) "Engineer" means the city engineer or development services manager, as designated for enforcement of capital or private development activities, of Marysville.

(30) "Environmentally sensitive areas" means areas defined as such by the Marysville sensitive areas ordinance.

(31) "Erosion" means the wearing away of the land surface by running water, wind, ice or other geological agents, including such processes as gravitational creep, and the detachment and movement of soil or rock fragments by water, wind, ice or gravity.

(32) "Erosion and sediment control" means any temporary or permanent measures taken to reduce erosion, control siltation and sedimentation, and ensure that sediment-laden water does not leave the site.

(33) "Excavation" means the mechanical removal of earth material.

(34) "Exception" means relief from specific mandates of a minimum requirement.

(35) "Fill" means a deposit of earth material placed by artificial means.

(36) "Forest practice" means any activity conducted on or directly pertaining to forest land and relating to growing, harvesting, or processing timber, including but not limited to:

(a) Road and trail construction;

(b) Harvesting, final and intermediate;

(c) Pre-commercial thinning;

(d) Reforestation;

(e) Fertilization;

(f) Prevention and suppression of diseases and insects;

(g) Salvage of trees; and

(h) Brush control.

(37) "Grade" means the slope of a road, channel or natural ground, the finished surface of a canal bed, roadbed, top of embankment, or bottom of excavation; any surface prepared for the support of construction such as paving or the laying of a conduit.

(38) "Existing grade" means the grade prior to grading.

(39) "Rough grade" means the stage at which the grade approximately conforms to the approved plan.

(40) "Finish grade" means the final grade of the site, which conforms to the approved plan.

(41) "Grading" or "grading activity" means any excavating, filling, or grading or combination thereof.

(42) "Ground water" means water in a saturated zone or stratum beneath the surface of land or a surface water body.

(43) "Illicit discharge" means all non-storm water discharges to storm water drainage systems that cause or contribute to a violation of state water quality, sediment quality, or ground water quality standards, including but not limited to sanitary sewer connections, industrial process water, interior floor drains, car washing, and gray water systems.

(44) "Impervious areas" means that hard surface area which either prevents or retards the entry of water into the soil mantle and/or causes water to run off the surface in greater quantities or at an increased rate of flow from that present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oil, macadam, or other surfaces which similarly impede the natural infiltration of surface and storm water runoff. Open, uncovered retention/detention facilities shall not be considered as impervious surfaces for the purposes of this chapter.

(45) "Interflow" means that portion of rainfall that infiltrates into the soil and moves laterally through the upper soil horizons until intercepted by a stream channel or until it returns to the surface for example, in a roadside ditch, wetland, spring or seep.

(46) "Land clearing" or "clearing" means the destruction or removal of vegetation from a site by physical, mechanical, chemical or other means. This does not mean mowing, landscape maintenance or pruning consistent with accepted horticultural and arboricultural practices, which does not impair the health or survival of the trees and associated vegetation.

(47) "Land-disturbing activities" means any activity that disturbs or alters land surface including clearing and grading.

(48)"LID Technical Guidance Manual" means the January 2005 Low Impact Development Technical Guidance Manual for Puget Sound, published by the Puget Sound Action Team and the Washington State University Pierce County Extension.

(49) "Lowest floor" means the lowest enclosed area (including basement) of a structure. An area used solely for parking of vehicles, building access, or storage is not considered a building's lowest floor; provided, that the enclosed area meets all of the structural requirements of the flood hazard standards.

(50) "Manual" refers to the Washington Department of Ecology's "Storm Water Management Manual for Western Washington," as amended.

(51) "Native vegetation" means vegetation comprised of plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and which reasonably could have been expected to naturally occur on the site. Examples include trees such as Douglas fir, western hemlock, western red cedar, alder, big-leaf maple, and vine maple; shrubs such as willow, elderberry, salmonberry, and salal; and herbaceous plants such as sword fern, foam flower, and fireweed.

(52) "Natural location" of drainage systems refers to the location of those channels, swales, and other natural conveyance systems as defined by the first documented topographic contours existing for the subject property, either from maps or photographs, or such other means as appropriate.

(53) "New development" means the following activities: land-disturbing activities; structural development, including construction, installation, or expansion of building or other structures; installation of impervious surfaces, and subdivisions or short plats.

(54) "On-site storm water management BMPs" means site development techniques that serve to infiltrate, disperse, and retain storm water runoff on-site.

(55) "Parcel" means a tract or plot of land of any size, which may or may not be subdivided or improved.

(56) "Permanent erosion and sediment control" means the continuous on-site and off-site control measures that are needed to prevent accelerated erosion, sedimentation or related pollution from occurring after completion of the grading activity or the construction project.

(57) "Permanent storm water control (PSC) plan" means a plan which includes permanent BMPs for the control of pollution from storm water runoff after construction and/or land-disturbing activity has been completed.

(58) "Person" means any individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, agency of the state, or local government unit, however designated.

(59) "Planned residential developments" refers to residential developments which are planned and/or developed in several stages but submitted together for approvals, and which typically consist of clusters of structures interspersed with areas of common open spaces (refer to Chapter 19.48 MMC).

(60) "Pollutant" shall mean any substance which, when added to water, would contaminate or alter the chemical, physical, or biological properties of any waters of the city's drainage system or of the state. This includes a change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the city's drainage system or of the state as will or is likely to create a nuisance. It also includes any substance which renders such waters harmful, detrimental, or injurious to the public health, safety, or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial use, or to livestock, wild animals, birds, fish, or other aquatic life.

(61) "Pollution" means contamination or other alteration of the physical, chemical or biological properties of waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state and will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreation or other legitimate beneficial uses, or to livestock, wild animals, birds, fish, or other aquatic life.

(62) "Pollution-generating impervious surface (PGIS)" means those impervious surfaces considered to be a significant source of pollutants in storm water runoff. Such surfaces include those which are subject to: vehicular use; industrial activities; or storage of erodible or leachable materials, wastes, or chemicals, and which receive direct rainfall or the run-on or blow-in of rainfall. Erodible or leachable materials, wastes, or chemicals are those substances which, when exposed to rainfall, measurably alter the physical or chemical characteristics of the rainfall runoff. Examples include erodible soils that are stockpiled, uncovered process wastes, manure, fertilizers, oily substances, ashes, kiln dust, and garbage dumpster leakage. Metals roofs are also considered to be PGIS unless they are coated with an inert, nonleachable material (e.g., baked-on enamel coating).

A surface, whether paved or not, shall be considered subject to vehicular use if it is regularly used by motor vehicles. The following are considered regularly used surfaces: roads, unvegetated

road shoulders, bike lanes within the traveled lane of a roadway, driveways, parking lots, unfenced fire lanes, vehicular equipment storage yards, and airport runways.

The following are not considered regularly used surfaces: paved bicycle pathways separated from and not subject to drainage from roads for motor vehicles, fenced fire lanes, and infrequently used maintenance access roads.

(63) "Pollution-generating pervious surface (PGPS)" means any nonimpervious surface subject to use of pesticides, fertilizers, or loss of soil.

(64) "Private drainage system" means drainage systems located on private property and designed to discharge directly as through pipes, channels, etc., or indirectly as sheet flow, subsurface flow, etc., into the city's drainage system.

(65) "Project site" means that portion of a property, properties, or right-of-way subject to land-disturbing activities, new impervious surfaces, or replaced impervious surfaces.

(66) "Public drainage system" means that portion of the drainage system of the city located on public right-of-way, easements or other property owned by the city, and those portions of private drainage systems operated and maintained by the city.

(67) "Receiving waters" means bodies of water or surface water systems receiving water from upstream manmade (or natural) systems. For the purpose of this chapter, receiving waters are Ebey Slough and the Snohomish River.

(68) "Redevelopment" means, on an already developed site, the creation and/or addition of impervious surfaces, structural development including construction, installation, or expansion of a building or other structure, and/or replacement of impervious surface that is not part of a routine maintenance activity, and land-disturbing activities associated with structural or impervious redevelopment.

(69) "Regional" means an action that involves more than one discrete parcel.

(70) "Regional detention facility" means a storm water quantity control structure designed to correct existing surface water runoff problems for all or a portion of a basin or sub-basin. This term is also used when a detention facility is used to detain storm water runoff from a number of different businesses, developments or areas within a catchment.

(71) "Replaced impervious surface" means the removal and replacement of any exterior impervious surfaces or foundation of a structure. Other impervious surfaces are considered replaced if first removed down to bare soil or base course.

(72) "Retention/detention facility (R/D)" means a type of drainage system designed either to hold water for a considerable length of time and then release it by evaporation, plant transpiration and/or infiltration into the ground; or to hold surface and storm water runoff for short period of time and then release it to the surface and storm water management system.

(73) "Sediment" means solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, or ice from its original site of origin.

(74) "Sedimentation" means the process by which sediment has been transported off the site of the grading activity and settled onto land or the bed of a creek, stream, river, wetland, pond, or other water body.

(75) "Site" means the area defined by the legal boundaries of a parcel or parcels of land subject to new development or redevelopment. For road projects, the length of the project site and the right-of-way boundaries define the site.

(76) "Site plan" means a plan which indicates the character of the existing site, topography, natural drainage features on or adjacent to the site, the location and dimensions of all impervious surfaces, flow arrows indicating the direction of storm water flows on-site, and any off-site flows entering the site, the proposed method of utilizing the existing drainage system.

(77) "Slope" means the degree of deviation of a surface from the horizontal, measured as a numerical ratio, percent, or in degrees. Expressed as a ratio, the first number is the horizontal distance (run) and the second is the vertical distance (rise), as 2:1.

(78) "Soil" means the unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of land plants.

(79) "Source control BMP" means a structure or operation that is intended to prevent pollutants from coming into contact with storm water through physical separation of areas or careful management of activities that are sources of pollutants. A few examples of source control BMPs are erosion control practices, maintenance of storm water facilities, constructing roofs over storage and working areas, and directing wash water and similar discharges to the sanitary sewer or a dead end sump.

(80) "Storm drainage plan" means a plan approved by the city of Marysville which includes either a small parcel or large parcel erosion and sediment control plan and/or a water quality control plan.

(81) "Storm water" means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, or other features of a storm water drainage system into a defined surface waterbody or a constructed infiltration facility.

(82) "Storm Water Management Manual for Western Washington" means the manual prepared by the Department of Ecology that contains BMPs to prevent or reduce pollution.

(83) "Storm water site plan" means the comprehensive report containing all of the technical information and analysis necessary to evaluate a proposed new development or redevelopment project for compliance with storm water requirements. Contents of the storm water site plan will vary with the type and size of the project, and individual site characteristics. It includes a construction storm water pollution prevention plan (construction SWPPP) and a permanent storm water control plan (PSC plan).

(84) "Subject property" means the tract of land which is the subject of the permit and/or approval action.

(85) "Surface water" means the naturally occurring water that flows over or is stored on the earth's surface.

(86) "Temporary erosion control" means the on-site and off-site control measures that are needed during construction activities to prevent accelerated erosion, sedimentation or related pollution from occurring, but may not be needed when the project is completed or when ground conditions have been stabilized by permanent erosion control measures.

(87) "Threshold discharge area" means an on-site area draining to a single natural discharge location or multiple natural discharge locations that combine within one-quarter mile downstream (as determined by the shortest flowpath).

(88) "Total maximum daily load (TMDL)" means a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources.

(89) "Undeveloped conditions" means the state, status, or condition of the subject property prior to any development of the property that has occurred, which may include trees, pastures, meadows, or native features.

(90) "Uncontaminated" means water that has not come into contact with illicit discharges.

(91) "Waterbody" means surface waters including rivers, streams, lakes, marine waters, estuaries and wetlands.

(92) "Water quality control plan (WQCP)" means a plan which includes permanent BMPs for the control of pollution from storm water runoff after construction and/or land-disturbing activity has been completed.

(93) "Water quality design flow rate" means:

(a) Preceding detention facilities or when detention facilities are not required: that rate at or below which 91 percent of the runoff volume, as estimated by an approved continuous runoff model, will be treated.

(b) Downstream of detention facilities: the full two-year release rate from the detention facility.

(94) "Water quality design storm" means the 24-hour rainfall amount with a six-month return frequency. It is commonly referred to as the six-month, 24-hour design storm.

(95) "Water quality design storm volume" means the volume of runoff predicted from a 24-hour storm with a six-month return frequency.

(96) "Watershed" means a geographic region within which water drains into a particular river, stream, or body of water as identified and numbered by the State of Washington Water Resource Inventory Areas (WRIAs) as defined in Chapter 173-500 WAC or succeeding regulation.

(97) "Wetland" or "wetlands" means areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. "Wetlands" generally include swamps, marshes, bogs, and similar areas. "Wetlands" do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. However, "wetlands" include those artificial wetlands intentionally created to mitigate conversion of wetlands. See the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (January, 1987) for more information.

14.15.50 Minimum requirements.

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(2) Minimum Requirement No. 2: Construction Storm Water Pollution Prevention (SWPP). All new development and redevelopment shall comply with construction SWPP elements numbers. 1 through 12 below.

(a) Projects in which the new, replaced, or new plus replaced impervious surfaces total 2,000 square feet or more or disturb 7,000 square feet or more of land must prepare a construction SWPP plan (SWPPP) as part of the storm water site plan. Each of the 12 elements must be considered and included in the construction SWPPP unless the director decides that site conditions render the element unnecessary and the exemption from that element is clearly justified in the narrative of the SWPPP.

(b) Projects that add or replace less than 2,000 square feet of impervious surface or disturb less than 7,000 square feet of land are not required to prepare a construction SWPPP but must consider all of the 12 elements of construction stormwater pollution prevention and develop controls for all elements that pertain to the project site.

(c) Element 1: Mark Clearing Limits.

(i) Prior to beginning land disturbing activities, including clearing and grading, all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area should be clearly marked, both in the field and on the plans, to prevent damage and off-site impacts.

(ii) Plastic, metal, or stake wire fence may be used to mark the clearing limits.

(d) Element 2: Establish Construction Access.

(i) Access Limited. Construction vehicle access and exit shall be limited to one route if possible.

(ii) Tracking Sediment. Access points shall be stabilized with quarry spall or crushed rock to minimize the tracking of sediment onto public roads.

(iii) Wheel Wash. Wheel wash or tire baths should be located on-site, if applicable.

(iv) Clean Public Roads. Public roads shall be cleaned thoroughly at the end of each day. Sediment shall be removed from roads by shoveling or pickup sweeping and shall be transported to a controlled sediment disposal area. Street washing will be allowed only after sediment is removed in this manner.

(v) Street Wash Water. Street wash wastewater shall be controlled by pumping back on-site, or otherwise be prevented from discharging into systems tributary to state surface waters.

(e) Element 3: Control Flow Rates.

(i) General. Properties and waterways downstream from development sites shall be protected from erosion due to increases in the volume, velocity, and peak flow rate of storm water runoff from the project site.

(ii) Downstream Analysis. Downstream analysis is necessary if changes in flows could impair or alter conveyance systems, stream banks, bed sediment or aquatic habitat.

(iii) BMPs Functional. Storm water retention/detention facilities shall be constructed as one of the first steps in grading. Detention facilities shall be functional prior to construction of site improvements (e.g., impervious surfaces).

(iv) Additional Flow Standards. The director may require pond designs that provide additional or different storm water flow control if necessary to address local conditions or to protect properties and waterways downstream from erosion due to increases in the volume, velocity, and peak flow rate of storm water runoff from the project site.

(v) Permanent Infiltration Ponds. If permanent infiltration ponds are used for flow control during construction, these facilities should be protected from siltation during the construction phase.

(f) Element 4: Install Sediment Controls.

(i) Native Vegetation and Soils. The duff layer, native top soil, and native vegetation shall be retained in an undisturbed state to the maximum extent practicable. Duff and native top soil should be retained and reused on site to the maximum extent practicable. Where retention and reuse is not feasible or when existing site soils are disturbed, areas not intended for impervious surfaces, pervious paving, or within the dripline of preserved trees shall be amended with four inches of well-composted organic matter mixed into the top eight inches of soil or should have an organic content of between 8 and 13 percent dry weight and a pH suitable for proposed plantings. Deeper soil amendment will provide improved growing medium and increased water holding capacity.

(ii) Sediment Removal BMP. Prior to leaving a construction site, or prior to discharge to an infiltration facility, storm water runoff from disturbed areas shall pass through a sediment pond or other appropriate sediment removal BMP. Runoff from fully stabilized areas may be discharged without a sediment removal BMP, but must meet the flow control performance standard of element no. 3. Full stabilization means concrete or asphalt paving; quarry spalls used as ditch lining; or the use of rolled erosion products, a bonded fiber matrix product, or vegetative cover in a manner that will fully prevent soil erosion. The director shall inspect and approve areas stabilized by means other than pavement or quarry spalls.

(iii) BMPs Functional. Sediment ponds, vegetated buffer strips, sediment barriers or filters, dikes, and other BMPs intended to trap sediment on-site shall be constructed as one of the first steps in grading. These BMPs shall be functional before other land disturbing activities take place.

(iv) Seeding. Earthen structures such as dams, dikes, and diversions shall be seeded and mulched according to the timing indicated in element no. 5.

(g) Element 5: Stabilize Soils.

(i) General. All exposed and unworked soils shall be stabilized by application of effective BMPs that protect the soil from the erosive forces of raindrop impact and flowing water, and wind erosion.

(ii) Applicable Practices. Applicable practices include, but are not limited to, temporary and permanent seeding, sodding, mulching, plastic covering, soil application of polyacrylamide (PAM), early application of gravel base on areas to be paved, and dust control.

(iii) Soil Stabilization. Soil stabilization measures selected should be appropriate for the time of year, site conditions, estimated duration of use, and potential water quality impacts that stabilization agents may have on downstream waters or ground water.

(iv) Soil Stockpiles. Soil stockpiles must be stabilized and protected with sediment trapping measures.

(v) Linear Facilities. Work on linear construction sites and activities, including right-of-way and easement clearing, roadway development, pipelines, and trenching for utilities, shall not exceed the capability of the individual contractor for his portion of the project to install the bedding materials, roadbeds, structures, pipelines, and/or utilities, and to restabilize the disturbed soils, meeting the timing conditions listed above in subsection (2)(g)(ii) of this section.

(h) Element 6: Protect Slopes.

(i) Cut and Fill Slopes. Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion.

(ii) Soil Types. Consider soil type and its potential for erosion.

(iii) Runoff Velocities. Reduce slope runoff velocities by reducing the continuous length of slope with terracing and diversions, reduce slope steepness, and roughen slope surface.

(iv) Diverted Flows. Divert upslope drainage and run-on waters from off-site with interceptors at top of slope. Off-site storm water should be handled separately from storm water generated on the site. Diversion of off-site storm water around the site may be a viable option. Diverted flows shall be redirected to the natural drainage location at or before the property boundary.

(v) Collected Flows. Contain downslope collected flows in pipes, slope drains, or protected channels.

(vi) Ground Water. Provide drainage to remove ground water intersecting the slope surface of exposed soil areas.

(vii) Excavation. Excavated material shall be placed on the uphill side of trenches, consistent with safety and space considerations.

(viii) Check Dams. Check dams shall be placed at regular intervals within trenches that are cut down a slope.

(ix) Stabilize Soils. Stabilize soils on slopes, as specified in element no. 5.

(i) Element 7: Protect Drain Inlets.

(i) General. All storm drain inlets made operable during construction shall be protected so that storm water runoff shall not enter the conveyance system without first being filtered or treated to remove sediment.

(ii) Roads. All approach roads shall be kept clean, and all sediment and street wash water shall not be allowed to enter storm drains without prior and adequate treatment unless treatment is provided before the storm drain discharges to waters of the state.

(j) Element 8: Stabilize Channels and Outlets.

(i) General. All temporary on-site conveyance channels shall be designed, constructed and stabilized to prevent erosion from the expected velocity of flow from a two-year, 24-hour frequency storm for the developed condition.

(ii) Stabilization. Stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream reaches shall be provided at the outlets of all conveyance systems.

(k) Element 9: Control Pollutants.

(i) General. All pollutants, including waste materials and demolition debris, that occur on-site during construction shall be handled and disposed of in a manner that does not cause contamination of storm water.

(ii) Vandalism. Cover, containment, and protection from vandalism shall be provided for all chemicals, liquid products, petroleum products, and noninert wastes present on the site.

(iii) Equipment Maintenance. Maintenance and repair of heavy equipment and vehicles involving oil changes, hydraulic system drain down, solvent and degreasing cleaning operations, fuel tank drain down and removal, and other activities which may result in discharge or spillage of pollutants to the ground or into storm water runoff must be conducted using spill prevention measures, such as drip pans. Contaminated surfaces shall be cleaned immediately following any discharge or spill incident. Emergency repairs may be performed on-site using temporary plastic placed beneath and, if raining, over the vehicle.

(iv) Wheel Wash. Wheel wash, or tire bath wastewater, shall be discharged to a separate on-site treatment system. It may be discharged to the sanitary sewer system only if expressly allowed by the local sewer district authority.

(v) Agricultural Chemicals. Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to storm water runoff. Manufacturers' recommendations shall be followed for application rates and procedures.

(vi) pH Management. Management of pH-modifying sources shall prevent contamination of runoff and storm water collected on the site. These sources include, but are not limited to, bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer washout waters.

(l) Element 10: Control Dewatering.

(i) General. All foundation, vault, and trench dewatering water, which have similar characteristics to storm water runoff at the site, shall be discharged into a controlled conveyance system, prior to discharge to a sediment trap or sediment pond. Channels must be stabilized, as specified in element no. 8.

(ii) Clean Water. Clean, nonturbid dewatering water, such as well-point ground water, can be discharged to systems tributary to state surface waters, as specified in element no. 8, provided the dewatering flow does not cause erosion or flooding of the receiving waters. These clean waters should not be routed through sediment ponds with storm water.

(iii) Contaminated Water. Highly turbid or otherwise contaminated dewatering water, such as from construction equipment operation, clamshell digging, concrete tremie pour, or work inside a cofferdam, shall be handled separately from storm water at the site.

(iv) Other Disposal Options. Depending on site constraints, dewatering may include: infiltration; transport off-site in vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters; on-site treatment using chemical treatment or other suitable treatment technologies; or sanitary sewer discharge with (local sewer district approval) approval if there is no other option.

(m) Element 11: Maintain BMPs.

(i) General. All temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to assure continued performance of their intended function. All maintenance and repair shall be conducted in accordance with BMPs.

(ii) Inspection. Sediment control BMPs shall be inspected weekly or after a runoff-producing storm event during the dry season and daily during the wet season.

(iii) Remove BMPs. All temporary erosion and sediment control BMPs shall be removed within 30 days after final site stabilization is achieved or after the temporary BMPs are no longer needed. Trapped sediment shall be removed or stabilized on-site. Disturbed soil areas resulting from removal of BMPs or vegetation shall be permanently stabilized.

(n) Element 12: Manage the Project.

(i) Phasing of Construction. Development projects shall be phased where feasible in order to prevent, to the maximum extent practicable, the transport of sediment from the project site during construction. Revegetation of exposed areas and maintenance of that vegetation shall be an integral part of the activities for any phase. Clearing and grading activities for developments shall be permitted only if conducted pursuant to an approved site development plan (e.g., subdivision approval) that establishes permitted areas of clearing, grading, cutting, and filling. When establishing these permitted clearing and grading areas, consideration should be given to minimizing removal of existing trees and minimizing disturbance/compaction of native soils except as needed for building purposes. These permitted clearing and grading areas and any other areas required to preserve critical or sensitive areas, buffers, native growth protection easements, or tree retention areas as may be required by the director, shall be delineated on the site plans and the development site.

(ii) Coordination with Other Contractors. The primary project applicant shall evaluate, with input from utilities and other contractors, the storm water management requirements for the entire project, including the utilities, when preparing the construction SWPPP.

(iii) Inspection. All BMPs shall be inspected, maintained, and repaired as needed to assure continued performance of their intended function.

(A) Certified Professional. A certified professional in erosion and sediment control shall be identified in the construction SWPPP and shall be on-site or on-call at all times. Certification may be through the Washington State Department of Transportation/Associated General Contractors (WSDOT/AGC) Construction Site Erosion and Sediment Control Certification Program or any equivalent local or national certification and/or training program.

(B) Sampling. Sampling and analysis of the storm water discharges from a construction site may be necessary on a case-by-case basis to ensure compliance with standards. Monitoring and reporting requirements may be established by the director when necessary.

(C) Modify SWPPP. Whenever inspection and/or monitoring reveals that the BMPs identified in the construction SWPPP are inadequate, due to the actual discharge of or potential to discharge a significant amount of any pollutant, the SWPPP shall be modified, as appropriate, in a timely manner.

(iv) Construction SWPPP. The construction SWPPP shall be retained on-site or within reasonable access to the site. The construction SWPPP shall be modified whenever there is a significant change in the design, construction, operation, or maintenance of any BMP.

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(7) Minimum Requirement No. 7: Flow Control.

(a) Applicability.

(i) Flow Control. Projects must provide flow control to reduce the impacts of storm water runoff from impervious[3] surfaces and land cover conversions. The requirement below applies to projects that discharge storm water directly, or indirectly, through a conveyance system, into fresh water, except for discharges into a wetland. (See minimum requirement no. 8 for flow control requirements applicable to discharges to wetlands.)

(ii) Exempt Areas. The director may petition the Department of Ecology to exempt projects in certain areas provided those areas also meet the following criteria:

(A) The area must be drained by a conveyance system that is comprised entirely of manmade conveyance elements (e.g., pipes, ditches, outfall protection, etc.) and extends to the ordinary high water line of the receiving water; and

(B) Any erodible elements of the manmade conveyance system for the area must be adequately stabilized to prevent erosion; and

(C) Surface water from the area must not be diverted from or increased to an existing wetland, stream, or near-shore habitat sufficient to cause a significant adverse impact.

(b) Thresholds. The following require construction of flow control facilities and/or land use management BMPs that will achieve the standard requirement for western Washington (see subsection (7)(c) of this section):

Table 14.15.050(7)(b)

Flow Control Requirements by Threshold Discharge Area		
	Flow Control Facilities	On-Site Storm Water Management BMPs
< 3/4 acres conversion to lawn/landscape, or < 2.5 acres to pasture		
> 3/4 acres conversion to lawn/landscape, or > 2.5 acres to pasture		
< 10,000 square feet of effective impervious area		
> 10,000 square feet of effective impervious area		
> 0.1 cubic feet per second increase in the 100-year flood frequency		

(i) Projects in which the total of effective impervious surfaces is 10,000 square feet or more in a threshold discharge area; or

(ii) Projects that convert three-quarters acres or more of native vegetation to lawn or landscape, or convert 2.5 acres or more of native vegetation to pasture in a threshold discharge area, and from which there is a surface discharge in a natural or manmade conveyance system from the site; or

(iii) Projects that through a combination of effective impervious surfaces and converted pervious surfaces, cause a 0.1 cubic feet per second increase in the 100-year flow frequency from a threshold discharge area as estimated using the Western Washington Hydrology Model or other model authorized by the director.

(iv) That portion of any development project in which the above thresholds are not exceeded in a threshold discharge area shall apply on-site storm water management BMPs in accordance with minimum requirement no. 5.

(c) Standard Requirement.

(i) Peak Flows. Storm water discharges shall match developed discharge durations to predeveloped durations for the range of predeveloped discharge rates from 50 percent of the two-year peak flow up to the full 50-year peak flow.

(ii) Predeveloped Condition. The predeveloped condition to be matched shall be a forested land cover unless reasonable, historic information is provided that indicates the site was prairie prior to settlement (modeled as "pasture" in the Western Washington Hydrology Model). This standard requirement is waived for sites that will reliably infiltrate all the runoff from impervious surfaces and converted pervious surfaces.

(d) Flow Control Facility Selection, Design, and Maintenance. Flow control facilities shall be selected, designed, and maintained in accordance with the manual.

(e) The base of a permanent infiltration systems shall be a minimum of three feet above the seasonal high ground-water mark, except if bioretention swales or cells are used for infiltration, a minimum of one-foot clearance between the bottom of the bioretention soil (or any underlying gravel layer) and the seasonal high groundwater elevation or other permeable layer is allowed for bioretention facilities meeting the following tributary area limitations:

(i) 5,000 square feet of pollution-generating impervious surface; or

(ii) 10,000 square feet of impervious area; or

(iii) ¾ acres of lawn and landscape.

...

14.15.062 Low impact development (LID) – alternative drainage standards.

Low impact BMPs are an alternative to conventional stormwater management systems that rely on detention ponds and closed conveyance. Instead, low impact development is intended to manage runoff close to the source of generation and to mimic the pre-developed hydrologic condition of a site. This is accomplished first through minimizing the impervious surface coverage and second by managing runoff through dispersion, infiltration, evapo-transpiration, or a combination of these approaches. Use of LID BMPs may reduce or eliminate the need for conventional detention facilities. A variety of BMPs to minimize impervious surfaces and to manage stormwater have been developed and tested for use in Western Washington. These BMPs and the overall LID approach are described in the LID Guidance Manual.

The menu of LID BMPs identified in the LID Guidance Manual are accepted for use in stormwater site plans to address the minimum requirements for flow control and runoff treatment in MMC 14.15.060, subject to the specifications, performance standards, and design criteria in the LID Guidance Manual, review and approval under this chapter, Chapter 19.49 MMC, as applicable, and the requirements and limitations below.

(1) The city engineer may approve the following LID BMPs to meet water quality treatment requirements:

(a) Full dispersion. Sites that are approved for full dispersion, consistent with the standards in the Technical Guidance Manual, are not required to provide water quality treatment.

(b) Bioretention. Any stormwater runoff that infiltrates through the imported soil mix in an approved bioretention facility will have received the equivalent of enhanced treatment. Where bioretention is intended to fully meet treatment requirements, facilities shall be designed, using an approved continuous runoff model, to infiltrate 60 percent of the developed two-year peak flow.

(2) In addition to the requirements in MMC 14.15.065, applicants for LID BMPs shall provide a site assessment. The site assessment shall include the following, unless waived or modified by the city engineer:

(a) A mapped inventory of existing vegetation and description of tree cover and understory;

(b) A mapped inventory of wetlands and streams and required buffers under Chapter 19.24 MMC on the site;

(c) A survey prepared by a registered land surveyor or other licensed professional to conduct surveys showing existing development, including utility infrastructure, on and adjacent to the site, major and minor hydrologic features, including seeps, springs, closed depression areas, drainage swales, and topographic relief at two-foot contours;

(d) The location of all existing and proposed lot lines and easements;

(e) A soils report by a licensed geotechnical engineer or licensed engineering geologist. The report shall identify:

(i) Underlying soils on the site, utilizing soil pits and soil grain analysis to assess infiltration capability. The frequency and distribution of test pits shall be adequate to direct placement of the roads and structures away from soils that can most effectively infiltrate stormwater;

(ii) Topographic features that may act as natural stormwater storage or conveyance and underlying soils that provide opportunities for storage and partial infiltration;

(iii) Depth to groundwater;

(iv) Landslide hazard areas on the site and the distance to slopes over 25 percent or landslide hazard areas within 500 feet of the site;

(f) Flood hazard areas on or adjacent to the site;

(g) SEPA Environmental Checklist.

(3) Additional studies may be required to address potential impacts to down-slope properties.

(4) Restrictions on conversion of drainage facilities shall be recorded on the face of the plat.

(5) A covenant shall be recorded with the Snohomish County auditor's office for each lot containing or served by bioretention facilities in a form approved by the city attorney. The covenant shall identify requirements and liability for preservation and maintenance of low impact development facilities approved under this chapter and privately held in individual or undivided ownership or intended for public ownership.

(6) An easement shall be granted for City access to low-impact development facilities on private property to allow inspection, maintenance, and repair.

Section 3. Ch. 14.16 MMC is hereby amended by amending MMC 14.16.015 and 14.16.040 to read as follows:

14.16.015 Developer-installed storm water facilities located in city right-of-way.

The city may assume the operation and full or partial maintenance of developer-installed

retention/detention or other drainage type treatment/abatement facilities located in the city right-of-way or on city-owned property after the expiration of the two-year operation and maintenance period if:

(1) All the requirements of this chapter have been fully complied with;

(2) The facilities have been inspected and approved by the engineer after two years of operation.

14.16.040 Connections required.

(1) The owner of any property which is not connected to the public storm drainage system shall be required to extend any storm drainage line which is

within 200 feet of the property, and to connect to and use the same for all developed portions of the property, under any of the following circumstances:

(a) As a condition of final approval of a subdivision;

(b) As a condition of final approval of a short subdivision;

(c) As a condition of final approval of a binding site plan for any mobile home park, condominium, planned unit development, industrial park or shopping center;

(d) As a condition of any building, grading, paving or other development approval, including rezones or conditional use permits, which will have a significant adverse impact upon storm drainage; as determined by the public works director or designee.

(2) The public works director or designee may waive the requirement of subsection (1) of this section on the following grounds:

(a) If the public works director or designee finds that the capacity or condition of the existing public storm-drainage system is insufficient or inadequate to serve the subject property; or

(b) If the public works director or designee finds that it would cause a practical difficulty to require the connection of the subject property to the public storm drainage system by reason of circumstances which are unique to the property and not generally shared by other properties in the vicinity; or

(c) If the public works director or designee finds that proposed on-site stormwater BMPs are adequate under the requirements of this Title.

No such waiver shall be granted which would be detrimental to the public health, safety, welfare or environment, or which would be inconsistent with the long-range plans for the public storm drainage system. In all cases where a waiver is granted, the property owner shall be required to strictly comply with storm water retention/detention requirements of Chapter 14.15 MMC.

The decision of the public works director or designee regarding such waivers shall be final, subject to appeal to the city council; provided, that in cases where a property owner has applied for development approval which is to be ruled upon by the city council itself, waivers referred to herein shall be determined by the city council after taking into consideration the recommendation of the city engineer.

Section 4. Ch. 14.17 MMC is hereby amended by adding a new section MMC 14.17.035 and amending MMC 14.17.090 to read as follows:

14.17.035 Maintenance of bioretention facilities.

(1) Bioretention cells and swales which are located on private property or in public street rights-of-way shall be cleaned, maintained and protected in continuous compliance with the

standards and specifications of the city and any recorded maintenance agreements. Responsibility for such work shall be borne by the owner of the underlying property or, in the case of facilities within the public right-of-way, responsibility for such work shall be born by the City.

(2) Property owners shall inspect approved bioretention facilities annually. Routine maintenance such as trash removal, weeding, mulching and pruning of bioretention areas and swales shall be performed in accordance with the maintenance requirements outlined in the most current edition of the LID Technical Guidance Manual for Puget Sound as needed, but at least once yearly or as specified in City standards, maintenance specifications or any recorded maintenance agreements.

(3) The city shall inspect approved bioretention facilities on an annual basis and monitor the ongoing function of both private and public facilities. Routine maintenance such as trash removal, weeding, mulching and pruning of bioretention areas and swales shall be performed on public facilities in accordance with the maintenance requirements outlined in the most current edition of the LID Technical Guidance Manual for Puget Sound as needed, but at least once yearly or as specified in City standards, maintenance specifications, or any recorded maintenance agreements.

(4) No person shall cause or permit bioretention areas to be obstructed, filled, graded, or used for disposal of debris.

(5) If an LID facility required to be maintained by a private property owner fails to perform as designed due to lack of maintenance, the City has the authority to perform the necessary maintenance, and recoup the costs incurred.

(6) The city shall enforce the provisions of this section pursuant to the procedures specified in MMC 14.17.040 through 14.17.080.

14.17.090 Exemptions.

(1) Storm water facilities owned and maintained by the Washington State Department of Transportation in state highway rights-of-way which are regulated by and meet the requirements of Chapter 173-270 WAC, the Puget Sound Highway Runoff Program, are exempted from the requirements of this chapter.

(2) Except as specified by covenant or other instrument recorded on the title of adjacent property, storm water facilities located in city of Marysville rights-of-way shall be maintained by the city and are exempted from the requirements of this chapter.

(3) Requests for exemption shall be filed in writing with the public works director or designee and shall adequately detail the basis for granting an exemption.

(4) The decision of the public works director or designee concerning a request for an exemption shall be made in writing for review of the city council.

(5) The decision of the public works director or designee, as to an exemption or denial thereof, may be appealed to the city council by filing written notice of appeal with the city clerk within 10 days of service of the public works director or designee's decision.

Section 5. Ch. 19.06 MMC is hereby amended by adding MMC 19.06.054 and amending MMC 19.06.268 and 19.06.343 to read as follows:

19.06.054 Best Management Practice (BMP)

"Best management practices (BMPs)" refers to the schedules of activities, prohibitions of practices, maintenance procedures, and, structural, and/or managerial practices, that when used

singly or in combination, prevent or reduce pollution of water and have been approved by the engineer. BMPs include, but are not limited to, infiltration, retention and/or detention, dispersion, amended soils, biofiltration facilities, bioretention facilities, open ditches with check dams, filter fabric strips, oil/water separators, wet ponds, constructed wetlands, erosion and sedimentation control, and other treatment/abatement facilities.

19.06.268 Impervious surface.
"Impervious surface" means any nonvertical surface artificially covered or hardened so as to prevent or impede the percolation of water into the soil mantle including, but not limited to, roof tops, swimming pools, paved or graveled roads or parking areas and excluding landscaping and surface water retention/detention facilities. Low impact development methods including, but not limited to, pervious pavement systems, green roofs and the area within minimal excavation foundations may reduce impervious area subject to consistency with the Low Impact Development Technical Guidance Manual for Puget Sound and approval of the city engineer.

19.06.343 Net project area.
"Net project area" means the gross project area minus floodplains, utility easements 30 feet wide or greater, publicly owned community facility land and right-of-way, stormwater detention facility tracts or easements (unless underground and usable for recreation), private roads or access easements, panhandles, and nontransferable critical areas (e.g. stream channels) per MMC 19.24.370. If stormwater detention areas are designed and constructed to meet low impact development standards, 50% of the area used for detention may be counted as net project area.

Section 6. Ch 19.16 MMC is hereby amended by amending Subsection (4) of MMC 19.16.080 and MMC 19.16.100 and adding a new section MMC 19.16.115 to read as follows:

19.16.080 Descriptions of screens and landscaping types.
...
(4) Parking Area Landscaping, Type D. Landscaping that provides shade and visual relief while maintaining clear sight lines within parking areas. Planting areas should contain a mixture of evergreen and deciduous trees, shrubs and groundcover in planting islands or strips having an area of at least 75 square feet and narrow dimension of no less than five feet. Suggested planting patterns which will achieve this standard are included in administrative guidelines prepared by the planning department.
...

19.16.100 Landscaping requirements for parking and outdoor display areas.
(1) Parking area, or outdoor storage areas fronting on a street right-of-way shall provide a landscaped buffer, in accordance with Table 1, along the entire street frontage except for driveways; provided, that the plantings shall not obstruct the sight distance at street intersections.
(2) Additional plantings may be placed on street rights-of-way behind the sidewalk line if the property owner provides the city with a written release of liability for damages which may be incurred to the planting area from any public use or right-of-way.
(3) Ten percent of the parking area, in addition to the required buffers above, shall be landscaped with Type D landscaping; provided that:
(a) No parking stall shall be located more than 45 feet from a landscaped area;
(b) All landscaping must be located between parking stalls, between rows of stalls, or at

the end of parking columns. The use of strips or islands as bioretention swales or cells is encouraged, subject to approval by the city engineer. No landscaping which occurs between the parking lot and a building or recreation area shall be considered in the satisfaction of these requirements;

(c) A minimum of one tree for every 120 square feet of required internal landscaped area shall be dispersed throughout the internal landscaped areas. Some trees may be grouped, but the groupings should be dispersed. Existing trees may be used to meet this standard. If existing trees are retained, each tree six inches or less in diameter counts as one tree. All trees will have a minimum diameter of three inches. Trees between six inches and nine inches in diameter counts as two trees. Each additional three inch diameter increment above nine inches counts as one tree;

(d) Parking lots containing less than 20 parking spaces need provide only perimeter screening to satisfy the 10 percent area requirements;

(e) All landscaped areas shall be protected from vehicle damage by a six-inch protective curbing. Wheel stops may be substituted when required to allow stormwater to pass;

(f) The landscaping requirements of this section may be modified if a development is located in an area where a special streetscape plan has been approved by the city.

19.16.115 Landscaping – Soil amendment.

All landscaped and lawn areas, except areas within the dripline of preserved trees, shall be amended with four inches of well-composted organic matter mixed into the top eight inches of soil or shall have an organic content of between 8 and 13 percent dry weight and a pH suitable for proposed plantings. Deeper soil amendment will provide improved growing medium and increased water holding capacity.

Section 7. Ch 19.24 MMC is hereby amended by amending Subsection (10) of MMC 19.24.100 and Subsection (9) of MMC 19.24.230 to read as follows:

19.24.100 Wetland buffer areas.

...

(10) Stormwater management facilities, such as biofiltration swales and dispersion facilities, may be located within the outer 25 percent of wetland buffers only if they will have no negative effect on the functions and purpose the buffers serve for the wetland or on the hydrologic conditions, hydrophytic vegetation, and substrate characteristics necessary to support existing and designated beneficial uses.

...

19.24.230 Fish and wildlife habitat buffer areas.

...

(9) Stormwater management facilities, such as biofiltration swales and dispersion facilities, may be located within the outer 25 percent of buffers only if they will have no negative effect on the functions and purpose the buffers serve for the fish and wildlife habitat areas. Stormwater detention ponds shall not be allowed in fish and wildlife habitat areas or their required buffers.

...

Section 8. Ch 19.28 MMC is hereby amended by amending Subsection (2)(g) of MMC 19.28.030 to read as follows:

19.28.030 Minimum standards.

...

(2) Grading. The following are the minimum standards for grading unless otherwise modified by an approved grading plan:

(g) The duff layer and native topsoils shall be retained in an undisturbed state to the maximum extent practicable in areas not intended for building pads, access ways or other impervious surfaces.

...

Section 9. Ch 20.12 MMC is hereby amended by amending Subsection (2) of MMC 20.12.010 to read as follows:

20.12.010 Preapplication requirements.

...

(2) Preliminary Drawing.

(a) The applicant shall provide an accurate preliminary drawing to scale showing lot layout, existing and proposed building location, size, access, utilities, open space, water sources, adjacent land use, and five-foot contours. This drawing must be provided before a pre-application meeting will be scheduled.

(b) If low-impact development techniques, including bioretention, dispersion or infiltration are proposed to manage stormwater, the applicant shall provide a site assessment consistent with the requirements in MMC 14.15.061.

(c) The applicant shall also provide a legal description of the property and a vicinity map.

...

Section 10. Ch 20.24 MMC is hereby amended by amending Subsections (2) and (3) of MMC 20.24.070, Subsection (4) of MMC 20.24.090, Subsection (1) of MMC 20.24.110, and MMC 20.24.250 to read as follows:

20.24.070 Landscaping requirements.

Landscaping shall be in conformance with Chapter 19.16 MMC, Development Standards – Landscaping; provided, that for all new divisions of land, the applicant shall provide a landscape/reforestation plan that will include, but not be limited to, the following:

...

(2) Yard trees at a rate of two per lot. Yard trees shall include at least one evergreen tree which is native to the Northwest region. Yard trees shall be a minimum of one and one-quarter inches in caliper and six to eight feet high for deciduous, and six feet high for evergreens. Lots that include retained trees will not be required to provide yard trees.

(3) Where the community development director determines that it is not feasible and/or desirable to plant the required lot trees, the applicant shall pay into the city tree fund an amount of money approximating the current market value of the trees, as well as labor costs for installation of said trees, that would otherwise be required. The city shall use the city tree fund for the purpose of acquiring, maintaining, and preserving wooded areas, and for planting and maintaining trees within the city.

...

20.24.090 Street improvements.

...

(4) The use of curvilinear streets and loop access roads shall be encouraged where such use will result in a more desirable layout.

...

20.24.110 Drainage improvements.

(1) Drainage improvements shall be required as specified in MMC Title 14. Use of low impact development methods to mimic predevelopment hydrologic functions and manage stormwater through natural processes is encouraged.

(2) Drainage Easements. When a subdivision or short subdivision is traversed by a watercourse, drainageway, channel or stream, the applicant shall provide a drainage easement or drainage right-of-way conforming substantially to the lines of the watercourse or drainageway. The easement or drainage right-of-way shall be maintained in its natural state with proper setback and landscaping as approved by the city.

20.24.250 Site improvements designated.

Site improvements shall include, but are not limited to: grading of entire width of street rights-of-way, asphalt/concrete surfacing of roadways (as per city standards contained in the street code), curbs, gutters and sidewalks constructed according to the street code, and construction of drainage facilities included in the preliminary plat. The requirement for curbs and gutters may be waived by the City Engineer, if bioretention facilities are approved for managing stormwater runoff from the street. Flow through curbs may be required by the City Engineer. The developer shall request inspection of the improvements by the city engineer or his designee at the following times:

(1) Erosion control measures are installed;

(2) Rough grading is complete and prior to placing pit run;

(3) Stormwater management facility completion;

(4) Roadway and frontage improvement completion;

(5) When all improvements, including monuments, have been placed.

All improvements which do not meet city standards shall be immediately replaced or repaired prior to proceeding. The city engineer, or his designee, will inform the developer in writing of any improvements which are not acceptable.

Section 11. Title 19 MMC is hereby amended by adding a new chapter Ch. 19.49 MMC to read as follows:

CHAPTER 19.49
LOW IMPACT DEVELOPMENT

Sections:

19.49.010 Purpose.

The purpose of this chapter is to permit design flexibility and provide performance criteria for low impact development. Low impact development (LID) is a stormwater management and land development strategy utilized in site design and construction that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to mimic natural hydrologic functions. Implementation of LID benefits streams, lakes, and Puget Sound by moderating the impacts of stormwater runoff generated by the built environment. LID techniques may supplant or augment traditional, structural stormwater management solutions. Low impact best management practices (BMPs) are described in the Low Impact Development Technical Guidance Manual for Puget Sound, 2005, published by the Puget Sound Action Team. LID objectives are:

(1) To retain or restore native forest cover to capture, infiltrate, and evaporate all or a portion of the rainfall on a site;

(2) To confine development to the smallest possible footprint and minimize land disturbance and site grading;

(3) To preserve or restore the health and water-holding capacity of soils;

(4) To incorporate natural site features that promote stormwater infiltration;

(6) To minimize all impervious surfaces and especially those that drain to conventional piped conveyance;

(7) To manage stormwater through infiltration, bioretention, and dispersion; and

(8) To manage stormwater runoff as close to its origin as possible in small, dispersed facilities.

19.49.020 Applicability.

(1) Conformance with this chapter shall be required:

(a) For sites designated as a low impact development special district or overlay zone under the authority of Chapter 19.46 MMC; or

(b) Where specified in an adopted basin plan pursuant to MMC 14.15.050(9); or

(c) When a site has committed to being an LID project pursuant to MMC 14.15.062.

(2) Modifications of this chapter are allowed for any proposed development subject to a determination of the applicable review authority that the proposal substantially furthers all objectives in MMC 19.49.010.

19.49.030 Protected native vegetated areas.

A portion of the site shall be preserved as protected native vegetated area.

(1) Protected native vegetated areas shall be designated in the following ratios:

(a) Residential Developments: Proposed at 6.0 dwelling units per acre or less shall preserve 35 percent of the site as native growth areas.

(b) Residential Developments: Proposed at more than 6.0 dwelling units per acre shall preserve 20 percent of the site as native growth areas.

(c) Commercial Developments: Shall preserve 10 percent of the site as native growth or landscaped areas.

(d) Improvements within existing public rights-of-way are exempt.

(2) For the purposes of calculating required area, submerged lands and sensitive areas and buffers required to be protected pursuant to Chapter 19.24 MMC shall not be included.

(3) Protected native vegetated areas shall be forested. Where existing vegetation provides minimal canopy cover or where nonnative or invasive plant species provide the predominant

cover, a planting plan shall be prepared that includes plant densities that are not less than five feet on center for shrubs and 10 feet on center for trees. This requirement does not apply to preserved wetlands. All plant species shall be native. Seventy percent of planted trees shall be deciduous species of at least one and one-half inch in caliper. Evergreen trees shall be six feet in height. The community development director may modify the requirements of this section based on site conditions.

(4) Clearing limits shall be surveyed, staked, and fenced with erosion control and/or clearing limits fencing prior to any construction work, including grading and clearing.

(5) Trees shall not be removed from areas proposed to meet the protected native growth area requirement during site development.

(6) Monitoring and maintenance of plants shall be required in accordance with MMC 19.24.270.

(7) Development within protected native vegetated areas shall be limited to biofiltration swales, stormwater dispersion facilities, pervious pedestrian trails, and approved surface water restoration projects. Activities within the protected native growth areas shall be limited to passive recreation, removal of invasive species, amendment of disturbed soils consistent with all applicable regulations, and planting of native vegetation. Development shall be consistent with critical areas requirements and restrictions in Chapter 19.24 MMC.

(8) A permanent protective mechanism shall be legally established to ensure that the required protected native vegetated area is preserved and protected in perpetuity in a form that is acceptable to the city and filed with the county auditor's office. A permanent protected native vegetated area shall be established using one of the following mechanisms.

(a) Placement in a separate non-building tract owned in common by all lots within a subdivision;

(b) Covered by a protective easement or public or private land trust dedication;

(c) Preserved through an appropriate permanent protective mechanism that provides the same level of permanent protection as subsection (a) of this section as determined by the community development director or hearing examiner.

(9) Restrictions on the future use of the protective native vegetated area shall be recorded on the face of the final plat, short plat, binding site plan, or site plan.

19.49.040 Preservation and amendment of topsoils.

The duff layer and native topsoils shall be retained in an undisturbed state to the maximum extent practicable.

(1) Any duff or topsoil removed during grading shall be stockpiled on-site in a designated, controlled area not adjacent to public resources and critical areas. The material shall be reapplied to other portions of the site where feasible.

(2) Except as otherwise provided in subsection (3), areas that have been cleared and graded or subject to prior disturbance shall be amended. Prior disturbance shall include soil compaction or removal of some or all of the duff layer or underlying topsoil. The amendment shall take place between May 1 and October 1. Replaced topsoil shall be a minimum of 8 inches thick, unless the applicant demonstrates that a different thickness will provide conditions equivalent to the soil moisture holding capacity native to the site. Replacement topsoil shall have an organic content of between 8 and 13 percent dry weight and a pH suitable for the proposed landscape plants.

(3) This section does not apply to areas within the dripline of existing trees proposed for retention, or areas that, at project completion, are covered by an impervious surface, incorporated into a drainage facility or engineered as structural fill or slope.

19.49.050 Stormwater management.
LID projects shall use infiltration, dispersion, and bioretention to the maximum extent practicable to manage stormwater runoff generated on-site.

(1) Infiltration shall be used except where a site assessment demonstrates that infiltration is not feasible due to site conditions or due to probable risk to groundwater or to other property.
(3) LID projects shall meet the minimum peak and duration flow control standards per the Department of Ecology Stormwater Management Manual for Western Washington, current city adopted edition.
(4) Flow control facilities may be reduced in size through compliance with LID Technical Guidance Manual Section 7.2.2 – full dispersion for all or part of the development site.
(5) Water quality treatment BMPs shall be provided to treat 91-percent of the annual runoff volume per the Department of Ecology standards.
(6) All site soils disturbed during construction shall be rehabilitated to the specifications of Integrated Management Practice 6.2 of the Low Impact Development Technical Guidance Manual for Puget Sound (2005).

TABLE 19.49.060-1	Pond Reduction (Infiltration <0.30 in/hr or less) 5,6	Pond Reduction (Infiltration of = 0.30 in/hr or more) 5,6
Rural Residential	100%	100%
Urban Residential < 6.0 Dwelling Units per Acre	50%	60%
Urban Residential 6.0 Dwelling Units per Acre	50%	60%
Multi-Family	40%	80%
Commercial	40%	80%
Roads	50%	50%

The volume reduction in the Table 19.49.060-1 represents a reduction as compared to the volume needed for a detention pond serving a standard development. Notes (a)-(d) below apply to the table.

(a)Infiltration rates are as measured in the field at the proposed LID location using techniques recommended in the Stormwater Management Manual for Western Washington and the Low Impact Technical Guidance Manual for Puget Sound.
(b) Multi-family projects are those projects containing more than three dwelling units attached in a single structure, regardless of ownership mechanism.
(c) All projects with Type A (outwash) soils shall infiltrate 100 percent of runoff.
(d) Stormwater discharges shall match developed discharge durations to pre-developed durations for the range of pre-developed discharge rates from 50 percent of the 2-year peak flow up to the full 50-year peak flow.

19.49.060 Maximum impervious surfaces.
LID projects shall limit impervious surface coverage as follows:

(1) New impervious surface shall not exceed 70 percent of the site for nonresidential uses listed in MMC 19.08.040, MMC 19.08.050, MMC 19.08.060, MMC 19.08.070, MMC 19.08.080, MMC 19.08.090, MMC 19.08.100, and hotel/motel uses.
(2) New impervious surface coverage shall not exceed the maximum limits in the following table for residential uses listed in MMC 19.08.030 except hotel/motel uses:

TABLE 19.49.070-2	**Maximum Percent Impervious Area based on Residential Density**
Dwelling Units Per Acre	**Maximum % Impervious**
1.4 du/ac	10%
1.5-2.4 du/ac	15%
2.5-3.4 du/ac	20%
3.5-4.9 du/ac	30%
5.0-6.9 du/ac	35%
7.0-9.9 du/ac	40%
10.0 du/ac or greater	60%

19.49.070 Density bonus and dimensional standard modifications.
(1) Development may be granted a density incentive pursuant to Chapter 19.26 MMC.
(2) The city, in its discretion, may allow the following modifications to residential dimensional standards in MMC 19.12.030 to meet the protected native growth area requirement in MMC 14.49.040 and to accommodate density bonuses received pursuant to Chapter 19.26 MMC:
(a) Minimum lot area may be reduced for single family dwellings to 4,000 square feet in the R-6.5 zone and 3,500 square feet in the R-8 zone.
(b) Minimum lot width may be reduced to 40 feet in the R-4.5 and R-6.5 zones.
(3) Modifications requested under this section shall require a justification of necessity according to the provisions of (1) above.

19.49.080 Review process.
(1) Except as specifically modified by this chapter, all development occurring under this chapter shall be subject to all applicable requirements and processes of the Marysville Municipal Code.
(2) All standards and requirements of this chapter shall be conditions of approval for the underlying development permits.
(3) All development proposed under this chapter shall be subject to the site assessment requirements of MMC 14.15.061(2). Applicants are encouraged to meet with public works and planning staff following completion of the site assessment and prior to site design to discuss additional analysis that may be required to support the use of LID BMPs, preliminary recommendations on meeting the stormwater regulations, and low impact options for site design.

Section 12. Severability. If any section, subsection, sentence, clause, phrase or work of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality thereof shall not affect the validity or constitutionality of any other section, subsection, sentence, clause, phrase or word of this ordinance.

PASSED by the City Council and APPROVED by the Mayor this _____ day of _____, 2007.

CITY OF MARYSVILLE

By: _____
DENNIS L KENDALL, MAYOR

Attest:

By: _____
CITY CLERK

Approved as to form:

By: _____
GRANT K. WEED, CITY ATTORNEY

Date of Publication: _____

Effective Date: _____
(5 days after publication)

SOUND FACTS

Low Impact Development

Technical Guidance Manual for Puget Sound

Development practices are taking on a striking new look in the Puget Sound region. The *Low Impact Development Technical Guidance Manual for Puget Sound* contains detailed guidance on how best to design, construct and maintain low impact development (LID) practices.

Staff from the Puget Sound Action Team and Washington State University Pierce County Extension developed the manual with help from a broad-based advisory committee, including stormwater staff from the Department of Ecology (Ecology) and numerous professionals in the public and private sectors. Ecology provided grant funding for the project.

Purpose of the manual

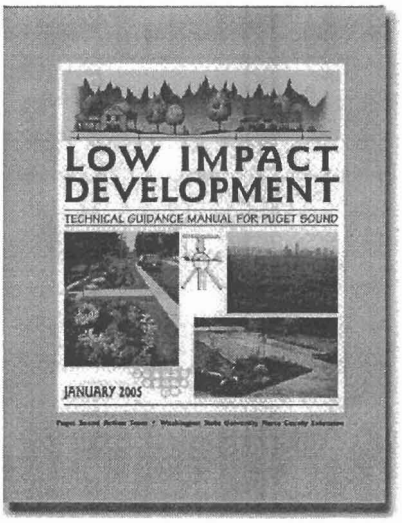
The manual provides professionals involved in stormwater management and land development in the Puget Sound region with a common understanding of LID goals and objectives, site assessment and design methods, credits for reducing the size of conventional stormwater facilities, and specifications for individual practices. In addition, the manual provides findings from national and international research and monitoring data to help professionals make informed decisions when using LID techniques in projects.

The manual is targeted to engineers, planners, developers, builders, architects, landscape architects and other technical staff who design, review, permit and build using LID practices.

Why do we need LID?

Research shows that conventional development practices do not fully protect water quality, fish and wildlife habitat, and other aquatic resources from the adverse effects of development and stormwater runoff. Ecology estimates that of all waters on the state's list of polluted water bodies, about 30 percent of them are polluted because of stormwater runoff.

Pollution from nonpoint (or dispersed) sources, including stormwater runoff, has closed thousands of acres of shellfish growing areas to harvest. Federal agencies cite



Low Impact Development defined

Low impact development is a stormwater management and land development strategy applied at the parcel and subdivision scale that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely mimic pre-development hydrology.

The goal of LID is to prevent measurable harm to streams, lakes, wetlands and other natural aquatic systems from commercial, residential or industrial development sites.

February 2005

PUGET SOUND ACTION TEAM

P.O. Box 40900 • Olympia • WA • 98504-0900 • 1-800-54-SOUND • (360) 725-5444

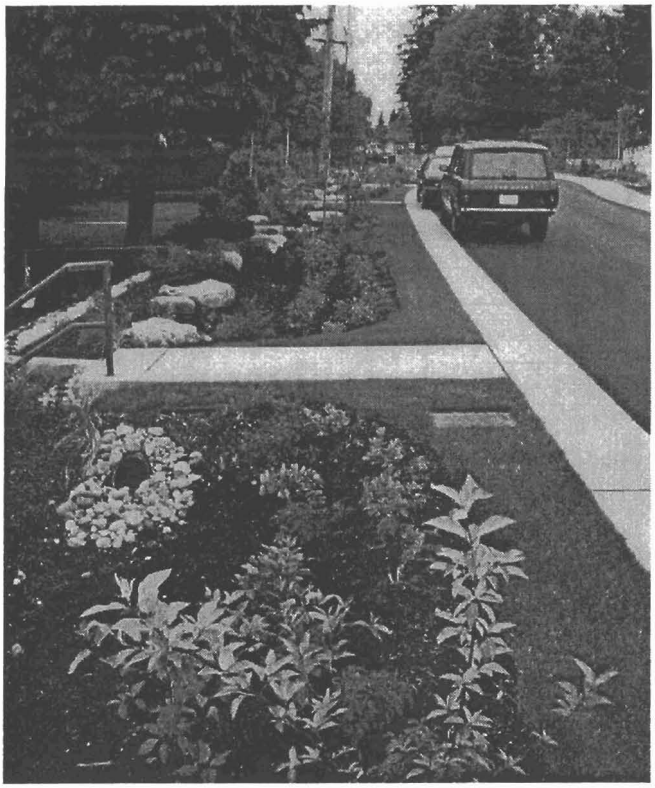


Photo courtesy of Seattle Public Utilities

A bioretention swale in Seattle's Broadview Green Grid Project.

loss of habitat due to development and stormwater runoff as one of the factors limiting salmon populations in Puget Sound.

LID practices offer great potential to help our region manage development and stormwater runoff more effectively. The practices can be used in rural, suburban and urban settings, on residential, commercial, municipal and industrial sites. Low impact development can be used in new developments or as part of a redevelopment project.

Initial monitoring shows LID to be effective

Initial findings from monitoring studies in the Puget Sound region indicate that LID practices can be effective. For example, University of Washington researchers monitoring the Street Edge Alternatives project in Seattle found that the innovative street design reduced total stormwater volume by approximately 98 percent since monitoring began in 2000. Other studies from our region and other parts of the nation and Europe show that LID practices can significantly reduce pollutant loadings in stormwater runoff.

Although we have more to learn about LID practices, the *Low Impact Development Technical Guidance Manual for Puget Sound* reflects the region's best thinking to date on these innovative stormwater management techniques.

Organization of the manual

The manual contains eight chapters and nine appendices:

- **Chapter 1** sets the context for LID with an introduction to Puget Sound lowland hydrology, the effects of urban development on water resources, and the goals and objectives for LID.
- **Chapter 2** details how to inventory and assess a site's soils, hydrologic patterns, native vegetation, wetlands, riparian management areas and flood plains.
- **Chapter 3** describes site planning and layout for roads, driveways and parking; street trees; lot layout; and building design.
- **Chapter 4** shows how to protect, revegetate and maintain vegetation on a development site.
- **Chapter 5** offers techniques to minimize site disturbance when clearing and grading.
- **Chapter 6** provides detailed guidance and specifications for six integrated management practices: bioretention areas, soil amendments, permeable pavement, vegetated roofs, minimal excavation foundations and roof rainwater collection systems.
- **Chapter 7** outlines the new credits in the Western Washington Hydrology Model (from Ecology's *Stormwater Management Manual for Western Washington)* that allow engineers to reduce the size of conventional flow control facilities when LID techniques are used.
- **Chapter 8** highlights several emerging techniques to model LID practices.
- **Appendices** include a street tree list, examples of bioretention, bioretention plant list, bioretention research, phytoremediation, phytoremediation plant list, permeable paving research and a sample specification for permeable asphalt.

LID Manual on the Web

To view or download the *Low Impact Development Technical Guidance Manual for Puget Sound* go to the Action Team's web site at: **http://www.psat.wa.gov/Programs/LID.htm**. If you would like to receive a printed copy of the manual, call (360) 725-5444 or (800) 54-SOUND.

For more information on low impact development, contact:

- ***Bruce Wulkan,** stormwater program lead for the Action Team, at bwulkan@psat.wa.gov or (360) 725-5455.*
- ***Curtis Hinman,** Extension faculty water quality agent for WSU Pierce County Extension, at chinman@wsu.edu or (253) 798-3257.*

For more information about the Action Team visit www.psat.wa.gov or call the Action Team at (360) 725-5444 or (800) 54-SOUND.
If you need these materials in an alternative format, call our TDD number: (800) 833-6388. Publications No. PSAT05-05

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CITY OF Marysville WASHINGTON

COMMUNITY DEVELOPMENT DEPARTMENT
80 Columbia Avenue • Marysville, WA 98270
(360) 363-8100 • (360) 651-5099 FAX

MEMORANDUM

DATE: FEBRUARY 7, 2007

TO: PLANNING COMMISSION

FROM: STEVE ROBERGE, SENIOR PLANNER

RE: LOW IMPACT DEVELOPMENT (LID)

Background and Issue:

Provided is a memo, from Shane Oden, Associate Engineer, describing some of the background and issues leading up to this proposed code revision and draft code language.

As proposed, use of the LID code is voluntary. The LID chapter, proposed MMC 19.49, is voluntary but some of the proposed revisions would be applicable to projects even if they were not a LID project, i.e. soil amendments required (proposed MMC 19.16.115) and one tree required for every 120 sq ft of landscape area (proposed MMC 19.16.100). The proposed revisions would allow developments to utilize LID and would set the parameters within which it could be utilized.

> *Low Impact Development (LID) is a stormwater management strategy that emphasizes conservation and use of existing natural site features integrated with disturbed, small scale stormwater controls to more closely mimic natural hydrologic patterns...*[1]

Revisions to the MMC are proposed in Titles:
- 12- Streets and Sidewalks
- 14- Water and Sewer
- 19- Zoning
- 20- Subdivisions

The proposed changes are discussed in more detail below and in the memo from Shane Oden, Associate Engineer.

Comprehensive Plan and Municipal Code:

The Marysville Comprehensive Plan contains the following policies:

LU-172

> Urban level facilities and services must be provided prior to or concurrent with development to mitigate the subsequent impacts of industrial developments. These services, include, but are not limited to, sanitary and storm sewers, water, police and fire protection, and roadways.

EN-30

> Preserve existing vegetation as much as possible due to its vital role in the recharge of ground water, and in order to prevent additional storm water runoff or soil erosion from

[1] Low Impact Development, Technical Guidance Manual for Puget Sound, January 2005, Pg 1.

new development. Density credits should be given when vegetation is retained and open space or buffer areas provided.

EN-32

Encourage the management of storm water runoff and urban drainage to protect the man-made and natural environment. Utilize the natural drainage system where it is possible to do so without significantly altering the natural drainage ways and/or by upgadin a public storm drainage system. Require the design of future developments to utilize natural drainage patterns and incorporate means to entrap storm water and water pollutants before they are carried down slope or before they enter watercourses.

EN-8

Pursue programs that offer creative solutions to enhance, improve and/or protect the natural environment. Stormwater facility design, low impact development options, wetland banking, and dual use facilities should be pursued whenever possible.

PF-9

Respect the capability of land and natural systems when determining how to provide such facilities and services as storm water drainage and flood prevention, water, sewage and garbage disposal.

PF-19

Encourage the design of future developments to utilize natural drainage patterns and incorporate means to entrap storm water and water pollutants before they are carried down slope or before they enter watercourses.

PF-23

Encourage the design of residential, commercial, and industrial developments that minimize the amount of impervious surfaces, grading, and the removal of vegetation to minimize problems associated with increased volume and velocity of storm water runoff.

Municipal Code:
The Municipal Code currently references LID in the RDI chapter but does not provide guidance or requirements.

Code Update:
Please see Mr Oden's memo for additional detail.

Why would someone want to use LID? Reason may include:

- Environmental consciences.
- Reduced stormwater pond sizes.
- Density incentives.
- Use of portion of detention area for net project area- increasing density and potentially buildable land.
- Aesthetics.

The revisions would allow developments to utilize LID techniques and would set the parameters within which it could be utilized. The proposed code revisions adopt the Low Impact Development, Technical Guidance Manual for Puget Sound, the standard and accepted guidance manual. The City is required, pursuant to State law, and is in the process of adopting the latest version of the Department of Ecology Stormwater Manual. The Ecology Manual references the LID manual and they work in concert.

As you will see from the attached proposed code revisions there are many sections proposed for revision as well as the addition of a new chapter to the zoning code. There are two main ways to utilize the new code:

1. Commitment to following the proposed new chapter completely and receiving the benefits provided.
2. Use pieces of the proposed LID provisions to qualify for density incentives through the RDI chapter, MMC 19.26, which allows 5%-10% density increase for integration of LID into the project depending on the benefit.

Summary of proposed changes to the land use code:

New LID chapter (Proposed MMC 19.49):
The new LID chapter contains provisions which require ratios of native growth area that must be set aside, soils are to be left undisturbed if possible and those areas disturbed will have to be amended, sets limits on impervious surface based on residential density and 70% for nonresidential, allows reductions in the required pond size, and modification to dimensional standards.

Impervious Surface definition (MMC 19.06.268):
The definition defines what is considered impervious surface. All zones have a maximum impervious surface, i.e. commercial zones have a max impervious surface of 85%. The proposed revision allows LID surfaces that allow water to infiltrate to not count as completely impervious.

Net Project Area definition (MMC 19.06.343):
The definition defines what portions of a site can be counted in determining the allowed density of a site. The definition currently required stormwater detention areas to be subtracted form the Net Project Area. The proposal allows 50% of the stormwater detention areas constructed to LID standards to be used as Net Project Area and counted toward the allowed density.

Landscaping (MMC 19.16):
Landscaping code revisions encourage bio-retention swales and require a minimum number of trees per landscaped area and that all landscape areas have soil amendments.

Parking (MMC 19.18):
Parking code revision requires commercial developments which exceed the minimum required parking stalls by more than 20% to make those stalls of pervious material.

Critical Areas (MMC 19.24):
The proposed revisions specifically allow dispersion facilities to be in the outer 25% of wetland and stream buffers.

Clearing, Grading, Filling, and Erosion Control (MMC 19.28):
Requires areas not intended for development to be left undisturbed to the extent practicable.

Subdivisions (MMC 20):
The revisions encourage LID to be used for subdivisions.

CITY OF Marysville WASHINGTON

COMMUNITY DEVELOPMENT DEPARTMENT
80 Columbia Avenue • Marysville, WA 98270
(360) 363-8100 • (360) 651-5099 FAX

MEMORANDUM

DATE: January 31, 2007

TO: PLANNING COMMISSON

FROM: COMMNUNITY DEVELOPMENT DEPARTMENT, SHANE ODEN

RE: LOW IMPACT DEVELOPMENT

Background and Issue:

Water is a vital resource to this City and preservation of water quality is an enormous challenge we all face in light of the rapid growth already occurring in the UGA. With more than 30% of impervious surface existing within the City of Marysville's city limits, and lieu of new impervious surface anticipated from traditional patterns of growth and development, we must encourage new forms of development and surface water management if we wish to preserve and potentially improve the health and sustainability of our watershed and community. As the City of Marysville looks into the future, we recognize the potential for more growth and development. While we remain optimistic, urbanization undoubtedly brings with it some concerns regarding stormwater runoff.

It has been estimated that development can increase the surface stormwater runoff by as much as 30% and decrease infiltration by 50%. Stormwater that would normally infiltrate, recharging vital groundwater storage tables, is now tight lined directly to surface water. Groundwater is a limited and variable resource that plays an important role in our watershed. Ground water discharge to streams supports year-round flow and provides drinking water to watershed residents. By rapidly discharging stormwater, we increase pollution, sediment discharge, water temperature, erosion problems and decrease groundwater storage, wildlife habitat, and safe recreation areas.

In response, the Community Development Department has vigorously pursued implementation of regulations to improve management of the City's watershed. The Council adopted the 2001 Department of Ecology Stormwater Management Manual and in 2003, and a new surface water fee structure that embarked on a more ambitious program of stormwater planning, construction and maintenance. Now, implementation of innovate stormwater management techniques which includes Low Impact Development (LID) practices, should be the next step.

In 2005, the City of Marysville and Snohomish County received grant assistance from the Puget Sound Action Team (PSAT) and AHBL to help review and recommend new LID codes, standards, and amendments. A focus group was also organized within the Community Development Department to perform further research on LID and to work with various internal and external interest groups to tailor and implement the recommendations provided by PSAT and AHBL. During this process, the City educated it's staff and it's community members on

many aspects of LID to better understand its practices and proper uses. In addition to already having a number of LID related projects with the City, we frequently are being approached by developers who are curious about LID. LID is discussed in pre-application meetings if it is a reasonable alternative. We have also had comments about how aesthetically pleasing LID features are as opposed to conventional stormwater vaults and detention ponds. Overall, we have had positive feedback and experiences with LID.

Code Update:

The review focused on code provisions that currently may preclude or create impediments to the implementation of LID and opportunities to include LID techniques within the code framework. Therefore, amendments to the appropriate code sections have been made and can be described as follows:

1. Title 12 – Streets and Sidewalks

The current Chapter 12.02A, Street Department Code, is intended to protect conventional drainage facilities from the impacts of construction in the adjacent right-of-way. Additional language has been added so that LID roadside bioretention facilities must be restored if impacts such as siltation occur. Additional changes have been made to allow relief from the curb, gutter, and underground drainage requirements.

2. Title 14 – Water and Sewers

An update to the BMP definition in Chapter 14.15, On-Site Storm Water Drainage Code, was made to make it more consistent with the current DOE definition. Additionally, definitions for bioretention and the LID Technical Guidance Manual were added. The Guidance Manual is incorporated as a reference document to provide standards and credits for the use of LID BMPs in proposed new section 14.15.062. Additional changes to Chapter 14.16 and 14.17 included minor changes regarding maintenance for LID facilities.

3. Title 19 – Zoning

The definition of "impervious surface" has become less clear with the advent of LID techniques. The exemptions to restrictions on impervious surface coverage in Chapter 19.06, Technical Terms and Land Use Definitions, has been updated.

Multiple uses within landscaped areas which may provide additional LID benefits while limiting additional land requirements have been addressed. Code changes have been made to encourage the use of interior parking lot landscaping as bioretention swales and greater tree cover in addition to landscape areas that provide water holding potential. Dispersion facilities are also being allowed in the outer buffers of wetlands and streams in Chapter 19.24, Critical Areas Management.

Compaction of undisturbed soils interferes with infiltration. The proposed amendment updates Chapter 19.28; Clearing, Grading, Filling, and Erosion Control; to encourage greater precision in site preparation.

4. Title 20 - Subdivisions

Discussions with staff about LID implementation should occur early in the developer's application, no later than the pre-application conference. Information on site characteristics, primarily geology and hydrology, and proposed LID BMPs should be discussed prior to detailed site planning. This has been incorporated into Chapter 20.12, Preliminary Subdivision Review.

The proposed language for Chapter 20.24, Land Division Requirements, includes minor adjustments to give the City more control over the placement of trees, to reduce impervious surfaces through loop roads, to encourage LID, and to allow for a waiver of the curb and gutter standards.

5. LID Ordinance

An LID ordinance has been developed. Chapter 19.49 will assist the City in implementing a low impact development by outlining LID purposes, applicability, techniques, and providing incentives for development.

CITY OF Marysville WASHINGTON

COMMUNITY DEVELOPMENT DEPARTMENT
80 Columbia Avenue • Marysville, WA 98270
(360) 363-8100 • (360) 651-5099 FAX

MEMORANDUM

DATE: FEBRUARY 22, 2007

TO: PLANNING COMMISSION

FROM: STEVE ROBERGE, SENIOR PLANNER

RE: LOW IMPACT DEVELOPMENT (LID)

As you know a Public Hearing on LID is scheduled during this Planning Commission meeting, February 27, 2007. You will find the draft LID code and three (3) comment letters attached. The attached draft code has been modified, from the 2/08/07 version which you received for the February 13, 2007 workshop, as a result of input from the Planning Commission during the workshop, staff review, comments from others. Changes to the code include:

1. MMC 19.18.160, Spaces required, has been removed from the proposed revisions. (The 2/08/07 draft required pervious surfaces to be used for parking stalls in excess of 20% of the required number.)
2. The language of proposed MMC 19.49.020(c), Applicability, was modified to make clear that the chapter is applicable when a site is committed to being an LID project.
3. There was a concern about soils required to be augmented or replaced to meet infiltration requirements. After review of the drainage code it was recognized this was a larger issue and had potential effect on all drainage facilities and staff does not recommend addressing through the LID code.
4. Table 19.49.060-1, Pond Reduction Table, Urban Residential, was modified to read 6 dwelling units or more. It previously state equal to 6.
5. MMC 14.15.035, Maintenance of bioretention facilities, was amended by added number 5 which allows the City to bill individuals who fail to maintain there facilities, causing the facility to malfunction or not perform as initially designed.
6. Section 19.49.050 (2), below, was removed because it was redundant and was found to create confusion.

   19.49.050

   ...

   (2) The maximum percentage of the total site stormwater storage volume detained in conventional detention facilities with an average design water depth greater than 6 inches for the 2-year storm event and drawdown time greater than 24 hours shall be reduced by the percentages in Table 19.49.060-1.

   ...

020807

12.02A.030 General specifications.

(4) Existing drainage ditches, culverts, etc., shall be kept clean and protected from impacts that may jeopardize their function at all times. Temporary diversion of any drainage system will not be permitted without the consent of the city engineer. Any drainage culvert tile, catch basins, manholes, bioretention facility, pervious pavement, etc., disturbed by excavation or other construction activities shall be replaced with new materials or repaired as directed by the city engineer.

12.02A.090 Frontage improvements required.

(1) The term "frontage improvements" as used in this section shall refer to the construction, reconstruction, or repair of the following facilities along the full abutting public street frontage of property being developed:

(a) Curbs, gutters, and sidewalks, except that curbs and gutters may be waived by the city engineer when street drainage will be managed via a bioretention facility within the right-of-way. Flow through curbs may be required by the City Engineer;

(b) Underground storm drainage facilities, except that surface facilities may be approved by the city engineer pursuant to MMC 14.15.061;

12.02A.100 Minimum access requirements.

No development permits or short plats shall be issued or approved by the city for any lot, parcel, or tract which does not comply with the following minimum access requirements:

(3) Each and every lot having access to a private road shall have responsibility for maintenance of such private road and associated stormwater drainage facilities unless specifically designated for maintenance by the City.

14.15.020 Definitions.

(4) "Best management practices (BMPs)" refers to the schedules of activities, prohibitions of practices, maintenance procedures, and ~~physical,~~ structural, and/or managerial practices, that when used singly or in combination, prevent or reduce pollution of water and have been approved by the engineer. BMPs include, but are not limited to, infiltration, retention and/or detention, dispersion, amended soils, biofiltration facilities, bioretention facilities, open ditches with check dams, filter fabric strips, oil/water separators, wet ponds, constructed wetlands, erosion and sedimentation control, and other treatment/abatement facilities.

(New definition) "Bioretention" means a terrestrial-based (upland as opposed to wetland), water quality and water quantity control practice using the chemical, biological, and physical properties of plants, microbes, and soils for removal of pollutants from storm water runoff. Some of the processes that may take place in a bioretention facility include: sedimentation, absorption, filtration, volatilization, ion exchange, decomposition, phytoremediation, bioremediation, and storage capacity. Bioretention may be designed to help mimic predevelopment hydrology.

(New definition) "LID Technical Guidance Manual" means the January 2005 Low Impact Development Technical Guidance Manual for Puget Sound, published by the Puget Sound Action Team and the Washington State University Pierce County Extension.

14.15.050 Minimum requirements.

(2) Minimum Requirement No. 2: Construction Storm Water Pollution Prevention (SWPP). All new development and redevelopment shall comply with construction SWPP elements numbers. 1 through 12 below.

(b) Projects that add or replace less than 2,000 square feet of impervious surface or disturb less than 7,000 square feet of land are not required to prepare a construction SWPPP but must consider all of the 12 elements of construction stormwater pollution prevention and develop controls

for all elements that pertain to the project site.

(f) Element 4: Install Sediment Controls.

(i) ~~Natural~~ Native Vegetation and Soils. The duff layer, native top soil, and ~~natural~~ native vegetation shall be retained in an undisturbed state to the maximum extent practicable. Duff and native top soil should be retained and reused on site to the maximum extent practicable. Where retention and reuse is not feasible or when existing site soils are disturbed, areas not intended for impervious surfaces, pervious paving, or within the dripline of preserved trees shall be amended with four inches of well-composted organic matter mixed into the top eight inches of soil or should have an organic content of between 8 and 13 percent dry weight and a pH suitable for proposed plantings. Deeper soil amendment will provide improved growing medium and increased water holding capacity.

(7) Minimum Requirement No. 7: Flow Control.

(e) The base of a permanent infiltration systems shall be a minimum of three feet above the seasonal high ground-water mark, except if bioretention swales or cells are used for infiltration, a minimum of one-foot clearance between the bottom of the bioretention soil (or any underlying gravel layer) and the seasonal high groundwater elevation or other permeable layer is allowed for bioretention facilities meeting the following tributary area limitations:

(i) 5,000 square feet of pollution-generating impervious surface; or

(ii) 10,000 square feet of impervious area; or

(iii) ¾ acres of lawn and landscape.

14.15.062 Low impact development (LID) – alternative drainage standards.

Low impact BMPs are an alternative to conventional stormwater management systems that rely on detention ponds and closed conveyance. Instead, low impact development is intended to manage runoff close to the source of generation and to mimic the pre-developed hydrologic condition of a site. This is accomplished first through minimizing the impervious surface coverage and second by managing runoff through dispersion, infiltration, evapo-transpiration, or a combination of these approaches. Use of LID BMPs may reduce or eliminate the need for conventional detention facilities. A variety of BMPs to minimize impervious surfaces and to manage stormwater have been developed and tested for use in Western Washington. These BMPs and the overall LID approach are described in the LID Guidance Manual.

The menu of LID BMPs identified in the LID Guidance Manual are accepted for use in stormwater site plans to address the minimum requirements for flow control and runoff treatment in MMC 14.15.060, subject to the specifications, performance standards, and design criteria in the LID Guidance Manual, review and approval under this chapter, Chapter 19.49 MMC, as applicable, and the requirements and limitations below.

(1) The city engineer may approve the following LID BMPs to meet water quality treatment requirements:

(a) Full dispersion. Sites that are approved for full dispersion, consistent with the standards in the Technical Guidance Manual, are not required to provide water quality treatment.

(b) Bioretention. Any stormwater runoff that infiltrates through the imported soil mix in an approved bioretention facility will have received the equivalent of Enhanced Treatment. Where bioretention is intended to fully meet treatment requirements, facilities shall be designed, using an approved continuous runoff model, to infiltrate 60 percent of the developed two-year peak flow.

(2) In addition to the requirements in MMC 14.15.065, applicants for LID BMPs shall provide a site assessment. The site assessment shall include the following, unless waived or modified by the city engineer:

(a) A mapped inventory of existing vegetation and description of tree cover and understory;

(b) A mapped inventory of wetlands and streams and required buffers under Chapter 19.24 MMC on the site;

(c) A survey prepared by a registered land surveyor or other licensed professional to conduct surveys showing exiting development, including utility infrastructure, on and adjacent to the

site, major and minor hydrologic features, including seeps, springs, closed depression areas, drainage swales, and topographic relief at two-foot contours;

(d) The location of all existing and proposed lot lines and easements;

(e) A soils report by a licensed geotechnical engineer or licensed engineering geologist. The report shall identify:

(i) Underlying soils on the site utilizing soil pits and soil grain analysis to assess infiltration capability. The frequency and distribution of test pits shall be adequate to direct placement of the roads and structures away from soils that can most effectively infiltrate stormwater;

(ii) Topographic features that may act as natural stormwater storage or conveyance and underlying soils that provide opportunities for storage and partial infiltration;

(iii) Depth to groundwater;

(iv) Landslide hazard areas on the site and the distance to slopes over 25 percent or landslide hazard areas within 500 feet of the site;

(f) Flood hazard areas on or adjacent to the site;

(g) SEPA Environmental Checklist.

(3) Additional studies may be required to address potential impacts to down-slope properties.

(4) Restrictions on conversion of drainage facilities shall be recorded on the face of the plat.

(5) A covenant shall be recorded with the Snohomish County auditor's office for each lot containing or served by bioretention facilities in a form approved by the city attorney. The covenant shall identify requirements and liability for preservation and maintenance of low impact development facilities approved under this chapter and privately held in individual or undivided ownership or intended for public ownership.

(6) An easement shall be granted for City access to low-impact development facilities on private property to allow inspection, maintenance, and repair.

14.16.015 Developer-installed storm water facilities located in city right-of-way.

The city may assume the operation and full or partial maintenance of developer-installed retention/detention or other drainage type treatment/abatement facilities located in the city right-of-way or on city-owned property after the expiration of the two-year operation and maintenance period if:

(1) All the requirements of this chapter have been fully complied with;

(2) The facilities have been inspected and approved by the engineer after two years of operation. (Ord. 2245 § 3, 1999).

14.16.040 Connections required.

(2) The public works director or designee may waive the requirement of subsection (1) of this section on the following grounds:

(a) If the public works director or designee finds that the capacity or condition of the existing public storm-drainage system is insufficient or inadequate to serve the subject property; or

(b) If the public works director or designee finds that it would cause a practical difficulty to require the connection of the subject property to the public storm drainage system by reason of circumstances which are unique to the property and not generally shared by other properties in the vicinity; or

(c) If the public works director or designee finds that proposed on-site stormwater BMPs are adequate under the requirements of this Title.

14.17.035 Maintenance of bioretention facilities.

(1) Bioretention cells and swales which are located on private property or in public street rights-of-way shall be cleaned, maintained and protected in continuous compliance with the standards and specifications of the city and any recorded maintenance agreements. Responsibility for such work shall be borne by the owner of the underlying property or, in the case of facilities within the public right-of-way, responsibility for such work shall be born by the City.

(2) Property owners shall inspect approved bioretention facilities annually. Routine maintenance such as trash removal, weeding, mulching and pruning of bioretention areas and swales shall be performed in accordance with the maintenance requirements outlined in the most current edition of the LID Technical Guidance Manual for Puget Sound as needed, but at least once yearly or as specified in City standards, maintenance specifications or any recorded maintenance agreements.

(3) The city shall inspect approved bioretention facilities on a annual basis and monitor the ongoing function of both private and public facilities. Routine maintenance such as trash removal, weeding, mulching and pruning of bioretention areas and swales shall be performed on public facilities in accordance with the maintenance requirements outlined in the most current edition of the LID Technical Guidance Manual for Puget Sound as needed, but at least once yearly or as specified in City standards, maintenance specifications or any recorded maintenance agreements.

(4) No person shall cause or permit bioretention areas to be obstructed, filled, graded or used for disposal of debris.

(5) If an LID facility required to be maintained by a private property owner fails to perform as designed, the City has the authority to perform the necessary maintenance, and recoup the costs incurred.

(~~5~~6) The city shall enforce the provisions of this section pursuant to the procedures specified in MMC 14.17.040 through 14.17.080.

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14.17.090 Exemptions.

(2) ~~Storm~~ Except as specified by covenant or other instrument recorded on the title of adjacent property, storm water facilities located in city of Marysville rights-of-way shall be maintained by the city and are exempted form the requirements of this chapter.

19.06.054 Best Management Practice (BMP)

"Best management practices (BMPs)" refers to the schedules of activities, prohibitions of practices, maintenance procedures, and~~,~~ structural, and/or managerial practices, that when used singly or in combination, prevent or reduce pollution of water and have been approved by the engineer. BMPs include, but are not limited to, infiltration, retention and/or detention, dispersion, amended soils, biofiltration facilities, bioretention facilities, open ditches with check dams, filter fabric strips, oil/water separators, wet ponds, constructed wetlands, erosion and sedimentation control, and other treatment/abatement facilities.

19.06.268 Impervious surface.

"Impervious surface" means any nonvertical surface artificially covered or hardened so as to prevent or impede the percolation of water into the soil mantle including, but not limited to, roof tops, swimming pools, paved or graveled roads or parking areas and excluding landscaping and surface water retention/detention facilities. Low impact development methods including, but not limited to, pervious pavement systems, green roofs and the area within minimal excavation foundations may reduce impervious area subject to consistency with the Low Impact Development Technical Guidance Manual for Puget Sound and approval of the city engineer. (Ord. 2131, 1997).

19.06.343 Net project area.

"Net project area" means the gross project area minus floodplains, utility easements 30 feet wide or greater, publicly owned community facility land and right-of-way, stormwater detention facility tracts or easements (unless underground and usable for recreation), private roads or access easements, panhandles, and nontransferable critical areas (e.g. stream channels) per MMC 19.24.370. If stormwater detention areas are designed and constructed to meet low impact development standards 50% of the area used for detention may be counted as net project area.

19.16.080 Descriptions of screens and landscaping types.

(4) Parking Area Landscaping, Type D. Landscaping that provides shade and visual relief while maintaining clear sight lines within parking areas. Planting areas should contain a mixture of evergreen and deciduous trees, shrubs and groundcover in planting islands or strips having an area of at least 75 square feet and narrow dimension of no less than ~~four~~ five feet. Suggested planting patterns which will achieve this standard are included in administrative guidelines prepared by the planning department.

19.16.100 Landscaping requirements for parking and outdoor display areas.

(1) Parking area, or outdoor storage areas fronting on a street right-of-way shall provide a landscaped buffer, in accordance with Table 1, along the entire street frontage except for driveways; provided, that the plantings shall not obstruct the sight distance at street intersections.

(2) Additional plantings may be placed on street rights-of-way behind the sidewalk line if the property owner provides the city with a written release of liability for damages which may be incurred to the planting area from any public use or right-of-way.

(3) Ten percent of the parking area, in addition to the required buffers above, shall be landscaped with Type D landscaping; provided that:

(a) No parking stall shall be located more than 45 feet from a landscaped area;

(b) All landscaping must be located between parking stalls, between rows of stalls, or at the end of parking columns~~, or between stalls and the property line~~. The use of strips or islands as bioretention swales or cells is encouraged, subject to approval by the city engineer. No landscaping which occurs between the parking lot and a building or recreation area shall be considered in the satisfaction of these requirements;

(c) A minimum of one tree for every 120 square feet of required internal landscaped area shall be dispersed throughout the internal landscaped areas. Some trees may be grouped, but the groupings should be dispersed. Existing trees may be used to meet this standard. If existing trees are retained, each tree six inches or less in diameter counts as one tree. All trees will have a minimum diameter of three inches. Trees between six inches and nine inches in diameter counts as two trees. Each additional three inch diameter increment above nine inches counts as one tree;

(d) Parking lots containing less than 20 parking spaces need provide only perimeter screening to satisfy the 10 percent area requirements;

(e) All landscaped areas shall be protected from vehicle damage by a six-inch protective curbing, ~~and, if necessary, wheel blocks~~ Wheel stops may be substituted when required to allow stormwater to pass;

(f) The landscaping requirements of this section may be modified if a development is located in an area where a special streetscape plan has been approved by the city. (Ord. 2298 § 19, 1999; Ord. 2131, 1997).

19.16.115 Landscaping – Soil amendment.

All landscaped and lawn areas, except areas within the dripline of preserved trees, shall be amended with four inches of well-composted organic matter mixed into the top eight inches of soil or shall have an organic content of between 8 and 13 percent dry weight and a pH suitable for proposed plantings. Deeper soil amendment will provide improved growing medium and increased water holding capacity.

Chapter 19.24, CRITICAL AREAS MANAGEMENT

19.24.100 Wetland buffer areas.

(10) Stormwater management facilities, such as biofiltration swales and dispersion facilities, may be located within the outer 25 percent of wetland buffers only if they will have no negative effect on the functions and purpose the buffers serve for the wetland or on the hydrologic conditions, hydrophytic vegetation, and substrate characteristics necessary to support existing and designated beneficial uses.

19.24.230 Fish and wildlife habitat buffer areas.

(9) Stormwater management facilities, such as biofiltration swales and dispersion facilities, may be located within the outer 25 percent of buffers only if they will have no negative effect on the functions and purpose the buffers serve for the fish and wildlife habitat areas. Stormwater detention ponds shall not be allowed in fish and wildlife habitat areas or their required buffers.

Chapter 19.28, CLEARING, GRADING, FILLING, AND EROSION CONTROL

19.28.030 Minimum standards.

(2) Grading. The following are the minimum standards for grading unless otherwise modified by an approved grading plan:

(g) The duff layer and native topsoils shall be retained in an undisturbed state to the maximum extent practicable in areas not intended for building pads, access ways or other impervious surfaces.

Chapter 20.12, PRELIMINARY SUBDIVISION REVIEW

20.12.010 Preapplication requirements.

(2) Preliminary Drawing.

(a) The applicant shall provide an accurate preliminary drawing to scale showing lot layout, existing and proposed building location, size, access, utilities, open space, water sources, adjacent land use, and five-foot contours. This drawing must be provided before a pre-application meeting will be scheduled.

(b) If low-impact development techniques, including bioretention, dispersion or infiltration are proposed to manage stormwater, the applicant shall provide a site assessment consistent with the requirements in MMC 14.15.061.

(c) The applicant shall also provide a legal description of the property and a vicinity map.

(Ord. 1986, 1994).

20.24.070 Landscaping requirements.

Landscaping shall be in conformance with Chapter 19.16 *MMC, Development Standards – Landscaping; provided, that for all new divisions of land, the applicant shall provide a landscape/reforestation plan that will include, but not be limited to, the following:*

(2) Yard trees at a rate of two per lot. Yard trees shall include at least one evergreen tree which is native to the Northwest region. Yard trees shall be a minimum of one and one-quarter inches in caliper and six to eight feet high for deciduous, and six feet high for evergreens. Lots that include retained trees will not be required to provide yard trees.

(3) Where ~~it is~~ the community development director determines that it is not feasible and/or desirable to plant the required lot trees, the applicant shall pay into the city tree fund an amount of money approximating the current market value of the trees, as well as labor costs for installation of said trees, that would otherwise be required. The city shall use the city tree fund for the purpose of acquiring, maintaining, and preserving wooded areas, and for planting and maintaining trees within the city.

20.24.090 Street improvements.

(4) The use of curvilinear streets~~, cul-de-sacs,~~ and ~~short loops~~loop access roads shall be encouraged where such use will result in a more desirable layout.

20.24.110 Drainage improvements.

(1) Drainage improvements shall be required as specified in MMC Title 14. Use of low impact development methods to mimic predevelopment hydrologic functions and manage stormwater through natural processes is encouraged.

20.24.250 Site improvements designated.

Site improvements shall include, but are not limited to: grading of entire width of street rights-of-way, asphalt/concrete surfacing of roadways (as per city standards contained in the street code), curbs, gutters and sidewalks constructed according to the street code, and construction of drainage facilities included in the preliminary plat. *The requirement for curbs and gutters may be waived by the City Engineer if bioretention facilities are approved for managing stormwater runoff from the street. Flow through curbs may be required by the City Engineer.* The developer shall request inspection of the improvements by the city engineer or his designee at the following times:

(1) Erosion control measures are installed;

(2) Rough grading is complete and prior to placing pit run;

(3) Stormwater ~~sewer~~ management facility completion;

(4) Roadway and frontage improvement~~including curb and gutter~~ completion;

(5) When all improvements, including monuments, have been placed.

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DRAFT
CITY OF MARYSVILLE
CHAPTER 19.49
LOW IMPACT DEVELOPMENT

Sections:

19.49.010 Purpose.

The purpose of this chapter is to permit design flexibility and provide performance criteria for low impact development. Low impact development (LID) is a stormwater management and land development strategy utilized in site design and construction that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to mimic natural hydrologic functions. Implementation of LID benefits streams, lakes, and Puget Sound by moderating the impacts of stormwater runoff generated by the built environment. LID techniques may supplant or augment traditional, structural stormwater management solutions. Low impact best management practices (BMPs) are described in the Low Impact Development Technical Guidance Manual for Puget Sound, 2005, published by the Puget Sound Action Team. LID objectives are:

(1) To retain or restore native forest cover to capture, infiltrate, and evaporate all or a portion of the rainfall on a site;

(2) To confine development to the smallest possible footprint and minimize land disturbance and site grading;

(3) To preserve or restore the health and water-holding capacity of soils;

(4) To incorporate natural site features that promote stormwater infiltration;

(6) To minimize all impervious surfaces and especially those that drain to conventional piped conveyance;

(7) To manage stormwater through infiltration, bioretention, and dispersion; and

(8) To manage stormwater runoff as close to its origin as possible in small, dispersed facilities.

19.49.020 Applicability.

(1) Conformance with this chapter shall be required:

(a) For sites designated as a low impact development special district or overlay zone under the authority of Chapter 19.46 MMC; or

(b) Where specified in an adopted basin plan pursuant to MMC 14.15.050(9); or

(c) When a site has committed to being an LID project pursuant to MMC 14.15.062.

(2) Modifications of this chapter are allowed for any proposed development subject to a determination of the applicable review authority that the proposal substantially furthers all objectives in 19.49.010.

19.49.030 Protected native growth areas.

A portion of the site shall be preserved as protected native growth area.

(1) Protected native growth areas shall be designated in the following ratios:

(a) Residential Developments: Proposed at 6.0 dwelling units per acre or less shall preserve 35 percent of the site as native growth areas.

(b) Residential Developments: Proposed at more than 6.0 dwelling units per acre shall preserve 20 percent of the site as native growth areas.

(c) Commercial Developments: Shall preserve 10 percent of the site as native growth or landscaped areas.

(d) Improvements within existing public rights-of-way are exempt.

(2) For the purposes of calculating required area, submerged lands and sensitive areas and buffers required to be protected pursuant to MMC 19.24 shall not be included.

(3) Protected native growth areas shall be forested. Where existing vegetation provides minimal canopy cover or where nonnative or invasive plant species provide the predominant cover, a planting plan shall be prepared that includes plant densities that are not less than five feet on center for shrubs and 10 feet on center for trees. This requirement does not apply to preserved wetlands. All plant species shall be native. Seventy percent of planted trees shall be deciduous species of at least one and one-half inch in caliper. Evergreen trees shall be six feet in height. The community development director may modify the requirements of this section based on site conditions.

(4) Clearing limits shall be surveyed, staked, and fenced with erosion control and/or clearing limits fencing prior to any construction work, including grading and clearing.

(5) Trees shall not be removed from areas proposed to meet the protected native growth area requirement during site development.

(6) Monitoring and maintenance of plants shall be required in accordance with MMC 19.24.270.

(7) Development within protected native growth areas shall be limited to biofiltration swales, stormwater dispersion facilities, pervious pedestrian trails, and approved surface water restoration projects. Activities within the protected native growth areas shall be limited to passive recreation, removal of invasive species, amendment of disturbed soils consistent with all applicable regulations, and planting of native vegetation. Development shall be consistent with critical areas requirements and restrictions in Chapter 19.24 MMC.

(8) A permanent protective mechanism shall be legally established to ensure that the required protected native growth area is preserved and protected in perpetuity in a form that is acceptable to the city and filed with the county auditor's office. A permanent protected native growth area shall be established using one of the following mechanisms.

(a) Placement in a separate non-building tract owned in common by all lots within a subdivision;

(b) Covered by a protective easement or public or private land trust dedication;

(c) Preserved through an appropriate permanent protective mechanism that provides the same level of permanent protection as subsection (a) of this section as determined by the community development director or hearing examiner.

(9) Restrictions on the future use of the protective native growth area shall be recorded on the face of the final plat, short plat, binding site plan, or site plan.

19.49.040 Preservation and amendment of topsoils.

The duff layer and native topsoils shall be retained in an undisturbed state to the maximum extent practicable.

(1) Any duff or topsoil removed during grading shall be stockpiled on-site in a designated, controlled area not adjacent to public resources and critical areas. The material shall be reapplied to other portions of the site where feasible.
(2) Except as otherwise provided in subsection (3), areas that have been cleared and graded or subject to prior disturbance shall be amended. Prior disturbance shall include soil compaction or removal of some or all of the duff layer or underlying topsoil. The amendment shall take place between May 1 and October 1. Replaced topsoil shall be a minimum of 8 inches thick, unless the applicant demonstrates that a different thickness will provide conditions equivalent to the soil moisture holding capacity native to the site. Replacement topsoil shall have an organic content of between 8 and 13 percent dry weight and a pH suitable for the proposed landscape plants.
(3) This section does not apply to areas within the dripline of existing trees proposed for retention, or areas that, at project completion, are covered by an impervious surface, incorporated into a drainage facility or engineered as structural fill or slope.

19.49.050 Stormwater management.
LID projects shall use infiltration, dispersion, and bioretention to the maximum extent practicable to manage stormwater runoff generated on-site.

(1) Infiltration shall be used except where a site assessment demonstrates that infiltration is not feasible due to site conditions or due to probable risk to groundwater or to other property.
(3) LID projects shall meet the minimum peak and duration flow control standards per the Department of Ecology Stormwater Management Manual for Western Washington, current city adopted edition.
(4) Flow control facilities may be reduced in size through compliance with LID Technical Guidance Manual Section 7.2.2 – full dispersion for all or part of the development site.
(5) Water quality treatment BMPs shall be provided to treat 91-percent of the annual runoff volume per the Department of Ecology standards.
(6) All site soils disturbed during construction shall be rehabilitated to the specifications of Integrated Management Practice 6.2 of the Low Impact Development Technical Guidance Manual for Puget Sound (2005).

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The volume reduction in the Table 19.49.060-1 represents a reduction as compared to the volume needed for a detention pond serving a standard development. Notes a-d, below, apply to the table.

TABLE 19.49.060-1	Pond Reduction (Infiltration <0.30 in/hr or less) 5,6	Pond Reduction (Infiltration of = 0.30 in/hr or more) 5,6
Rural Residential	100%	100%
Urban Residential < 6.0 Dwelling Units per Acre	50%	60%
Urban Residential 6.0 Dwelling Units per Acre	50%	60%
Multi-Family	40%	80%
Commercial	40%	80%
Roads	50%	50%

(a)Infiltration rates are as measured in the field at the proposed LID location using techniques recommended in the Stormwater Management Manual for Western Washington and the Low Impact Technical Guidance Manual for Puget Sound.

(b) Multi-family projects are those projects containing more than three dwelling units attached in a single structure, regardless of ownership mechanism.

(c) All projects with Type A (outwash) soils shall infiltrate 100 percent of runoff.

(d) Stormwater discharges shall match developed discharge durations to pre-developed durations for the range of pre-developed discharge rates from 50 percent of the 2-year peak flow up to the full 50-year peak flow.

19.49.060 Maximum impervious surfaces.

LID projects shall limit impervious surface coverage as follows:

(1) New impervious surface shall not exceed 70 percent of the site for nonresidential uses listed in MMC 19.08.040, MMC 19.08.050, MMC 19.08.060, MMC 19.08.070, MMC 19.08.080, MMC 19.08.090, MMC 19.08.100, and hotel/motels uses.

(2) New impervious surface shall not exceed the maximum limits in the following table for residential uses listed in MMC 19.08.030 except hotel/motel:

TABLE 19.49.070-2	Maximum Percent Impervious Area based on Residential Density
Dwelling Units Per Acre	Maximum % Impervious
1.4 du/ac	10%
1.5-2.4 du/ac	15%
2.5-3.4 du/ac	20%
3.5-4.9 du/ac	30%
5.0-6.9 du/ac	35%
7.0-9.9 du/ac	40%
10.0 du/ac or greater	60%

19.49.070 Density bonus and dimensional standard modifications.

(1) Development may be granted a density incentive pursuant to MMC 19.26.

(2) The city, in its discretion, may allow the following modifications to residential dimensional standards in MMC 19.12.030 to meet the protected native growth area requirement in MMC 14.49.040 and to accommodate density bonuses received pursuant to chapter 19.26 MMC:

(a) Minimum lot area may be reduced for single family dwellings to 4,000 square feet in the R-6.5 zone and 3,500 square feet in the R-8 zone.

(b) Minimum lot width may be reduced to 40 feet in the R-4.5 and R-6.5 zones.

(3) Modifications requested under this section shall require a justification of necessity according to the provisions of (1) above.

19.49.080 Review process.

(1) Except as specifically modified by this chapter, all development occurring under this chapter shall be subject to all applicable requirements and processes of the Marysville Municipal Code.

(2) All standards and requirements of this chapter shall be conditions of approval for the

underlying development permits.
(3) All development proposed under this chapter shall be subject to the site assessment requirements of MMC 14.15.061(2). Applicants are encouraged to meet with public works and planning staff following completion of the site assessment and prior to site design to discuss additional analysis that may be required to support the use of LID BMPs, preliminary recommendations on meeting the stormwater regulations, and low impact options for site design.

STATE OF WASHINGTON
PUGET SOUND ACTION TEAM
OFFICE OF THE GOVERNOR
PO BOX 40900 • Olympia, Washington 98504-0900
(360) 725-5444 • FAX (360) 725-5456

October 27, 2006

Steve Roberge
Senior Planner
City of Marysville
1049 State Avenue
Marysville, Washington 98270

Subject: Comments on proposed amendments to titles 12, 14, 19, and 20, and the new LID chapter 19.49.

Dear Mr. Roberge:

Thank you for the opportunity to comment on your proposed Low Impact Development (LID) code amendments and new LID chapter. The Puget Sound Action Team is charged by the legislature with responsibility for defining, coordinating, and helping to implement Washington's environmental agenda for Puget Sound under Chapter 90.71 RCW. The Action Team works through a partnership structure, including a chair appointed by the governor, directors from 10 state agencies and representatives from tribal, federal and local governments with direct responsibilities and authorities for conserving and restoring Puget Sound. This letter is provided in my role as Director of the Puget Sound Action Team staff (PSAT) rather than as chair of the partnership.

The health of Puget Sound depends on the health of the watersheds that surround and drain to the Sound, and their health in turn is greatly affected by the land uses, development patterns, and populations in these watersheds. Puget Sound's health is very much connected to land use, and that underscores the importance of encouraging low impact development. The proposed amendments to Marysville's development codes will help advance the state's goals and priorities for Puget Sound, as described in the *2005-2007 Puget Sound Conservation and Recovery Plan*, by providing development options that maintain land cover and minimize impervious surfaces.

We would like to express our appreciation to the City of Marysville staff for your work in researching the issues and devising effective solutions that will benefit the communities within Marysville. We are very pleased to see that the technical assistance we provided through AHBL's expertise was helpful in this process and will continue to provide long-term benefits to your jurisdiction.

We fully support the proposed changes and additions in the draft code. We think these changes will provide increased protection of valuable resources in Marysville and will benefit your stormwater management efforts. After careful review, we would like to make a few suggested improvements and edits.

Section 14.15.050 (2)(i) line 6, Minimum requirements, Native Vegetation and Soils
We suggest changing "…top eight inches of soil or should…" to "…top eight inches of soil and should…" This comment also applies to **19.16.115 Landscaping – Soil amendment, line 3.**
Rationale: All of these elements are needed, as per the LID Technical Guidance Manual for Puget Sound.

Section 14.15.061 (6), LID – Alternative drainage standards
The city might wish to consider additional language to allow the city to bill private landowners for maintenance services the city is compelled to provide to ensure that LID facilities continue to perform as designed.
Rationale: Like all stormwater facilities, LID facilities must be maintained to continue to perform as designed. If this maintenance is not performed as required, the city might have to do the maintenance, and might want to recoup costs incurred.

Section 14.17.035 (3)(i): Maintenance of bioretention facilities
On the east coast, where they have the longest history in the use of bioretention, they have not encountered the need to excavate and replace soil in bioretention areas. However, the mulch layer of bioretention areas needs to be replaced every 1-2 years, as many of the pollutants that enter via stormwater are trapped in this 2-3" mulch layer.

Section 19.24.100 (10), line 1, Wetland buffer areas
We recommend changing "biofiltration" to "bioretention." This comment also applies to **19.24.230 (9), line 1, Fish and wildlife habitat buffer areas** and **19.49.040 (7), line 1, Protected native growth areas.**
Rationale: Bioretention refers to an enhanced treatment BMP and LID technique that readily traps high percentages of pollutants and successfully mitigates stormwater flows. Biofiltration refers to the more conventional stormwater BMP found in the Ecology stormwater manual. Of the two, bioretention, following the design of the LID Guidance Manual, would have less potential negative effect on wetland functions. As stated in WAC 365-195-825 the structure, value, and function of all critical areas, including wetlands, must be preserved.

Section 19.49.060 (2) Stormwater management
We suggest deleting section 2 that starts "The maximum percentage of the total site…", but leaving the bullets underneath that start "LID projects shall meet…"
Rationale: This language was developed to clearly delineate conventional stormwater facilities from LID facilities, but it caused considerable confusion. Action Team staff have stopped using it altogether and instead state that the percentage reductions in the table are simply reductions as compared to the volume needed for a detention pond serving a standard development. This is clearer to stormwater engineers.

19.49.060-1 (table)
We suggest that the city consider changing the 3rd box on the left to: "Urban Residential ≥ 6.0 Dwelling Units per Acre"
Rationale: This makes it clear that this applies to zoning that is more dense than 6/acre (e.g., 7 or 8 units/acre).

We appreciate your hard work and commitment to preserving Puget Sound's health, and your consideration of our comments on the proposed regulations. We look forward to seeing your final draft.

If you have questions or if you would like additional information, please contact Linda Lyshall, our regional liaison to Snohomish County, at llyshall@psat.wa.gov or 425-640-3557.

Sincerely,

Brad Ack
Director

SNOHOMISH
HEALTH
DISTRICT

ENVIRONMENTAL HEALTH DIVISION
3020 Rucker Avenue, Suite 104
Everett, WA 98201-3900
425.339.5250 FAX: 425.339.5254
Deaf/Hard of Hearing: 425.339.5252 (TTY)

Date: October 9, 2006

To: Steve Roberge
Planning/Community Development
City of Marysville

From: Brent Raasina, R.S., Senior Sanitarian
Water & Wastewater Section
Environmental Health Division
Snohomish Health District

Subject: Request for Review - File #**PA 06-072**
City of Marysville
Site Address: City Wide
Property Tax Acct. Number: n/a

Snohomish Health District has no comment on this subject.

BR/ss

Re: Amend Marysville Municipal Code to include LID provisions.

Tulalip Tribes have the following comments to the review request for amends to the Marysville Municipal Code to include LID provisions:

1. Supplemental Sheet D.1: More information is needed on effectiveness of low impact development techniques where there is high groundwater or heavier traffic. Monitoring could help develop such an information base.

   The Lower Snohomish River basin is subject to a TMDL for fecal coliform, and also has water quality impairment for dissolved oxygen. Maintaining infiltration through low impact storm water facilities, pervious pavement, and other BMPs would help mitigate impacts to surface water quality and quantity, if properly designed, maintained, and used in connection with other appropriate source and spill controls. The Tulalip Tribes will be interested if the City maintains a database of such low impact facilities, and their performance over time.

2. Supplemental Sheet D.2 and 4: Salmonids reside in and migrate through watercourses and bodies in Marysville and Marysville's vicinity, including steelhead, chum, and coho. Bull trout is a listed species in the Puget Sound area. Preserving existing infiltration and vegetation to the extent feasible will help maintain streamflow and dissolved oxygen levels, and help protect from temperature impacts. This will also benefit streambank stability and streambed integrity. These would be some of the habitat preservation benefits from Low Impact Development techniques.

3. Supplemental Sheet D.5: LID techniques may help conserve land that might be consumed with other BMPs, such as wet ponds, detention ponds, etc. This could help make more land available for other uses, such as for development incentives or aesthetic enhancement.

4. Supplemental Sheet D.6: Reduced impervious area, runoff and pollution may reduce stormwater improvement needs and services for a given area. LID design techniques for roads may change road maintenance techniques and costs.

5. Code section, Chapter 14.17 code alternatives: The first alternative code text appears to be clearer in terms of stipulations and enforcement, but may lack the flexibility and economy of the second alternative code text.

Thank you for the opportunity to comment. Please let us know if you have any questions. I can be reached at (360) 651-4027, or email at alee@tulaliptribes-nsn.gov.

Arthur Lee
Tulalip Tribes Community Development
6/28/05

MARYSVILLE PLANNING COMMISSION

February 13, 2007 **7:00 p.m.** **City Hall**

CALL TO ORDER

Chairman Muller called the February 13, 2007 meeting of the Marysville Planning Commission to order at 7:10 p.m. The following staff and commissioners were noted as being in attendance.

Chairman: Steve Muller

Commissioners: Jerry Andes, Dave Voigt (arrived 7:40 p.m.), Becky Foster, Steve Leifer, Toni Mathews

Staff: Steve Roberge, Senior Planner
Shane Oden, Associate Engineer
Laurie Hugdahl, Recording Secretary (arrived 7:50 p.m.)

Chairman Muller noted the excused absence of Deirdre Kvangnes and Dave Voigt.

APPROVAL OF MINUTES

January 23, 2007

Motion made by Commissioner Foster, seconded by Commissioner Mathews, to approve the January 23, 2007 minutes as presented. Motion passed unanimously (5-0).

AUDIENCE PARTICIPATION

None.

WORKSHOP

Low Impact Development (LID) Regulations

Shane Oden, Associate Engineer, reviewed the information contained in his memo to the Planning Commission regarding Low Impact Development dated January 31, 2007. He then reviewed a PowerPoint presentation regarding Low Impact Development. Some of the slides discussed in his presentation included:

- Traditional Approaches to Land Development and Stormwater Management
- Limitations of Traditional Approaches
- Effects of Stormwater Runoff in Marysville

- Definition of Low Impact Develoment "LID"
- Benefits of LID
- Limitations of LID
- LID as part of a Comprehensive Stormwater Program
- The Puget Sound Action Team is an Intergovernmental Partnership
- Action Team 20065-06 LID Local Regulation Assistance
- Puget Sound Action Team Promotion and Assistance
- LID Technical Manual
- Integrated Management Practices (several slides)

Discussion:

Commissioner Voigt asked if staff is prepared for the risk the City would take in the event that an application was misapplied. Mr. Oden explained that they would still have to meet the standards in the geotechnical manuals. He discussed the impact of development on infiltration and stated that they would review this on a case-by-case basis. A concern associated with low impact development is less than with an open ditch or pond. He does not believe that LID practices make more of a risk.

There was discussion about LID products and services that are available. Other jurisdictions are supporting LID developments. Staff is actively encouraging developers looking at those methods.

Steve Roberge stated that they planned to have a hearing regarding the proposed code amendments on February 27. Commissioner Voigt asked if they have had any comments. Mr. Roberge stated that they have not had any opposition since this is completely voluntary. He reviewed the proposed amendments to the code and some of the benefits that people would get for utilizing these methods/materials.

Chairman Muller questioned why there were giving a benefit. He thought that this would negate the purpose of the LID. Mr. Roberge gave some specific examples of incentives to explain.

Jerry Andes asked how the size of this correlates to drainage ponds. Would the usable area be the same? Mr. Oden said it would depend where the drainage facilities are located.

Chairman Muller asked if this didn't just create more impervious surface. Mr. Oden explained that all the water is kept onsite even more impervious surface is added. They would provide flow control and water quality control.

Steve Roberge continued to review the code amendments related to parking. Chairman Muller noted that this was similar to the small lot code revisions that they had recently reviewed.

(Commissioner Foster was excused at 8:23 p.m.)

Commissioner Leifer asked why this only applied to commercial zones. Mr. Roberge stated that staff did not want to discourage any additional parking in residential sites.

Chairman Muller commented that the City's parking requirements are not enough to meet the functional needs of the commercial zones.

Commissioner Leifer countered that for light industrial sites the requirement is too high, but for retail it is too low. He stated that the parking requirements should be tailored to the specific uses (office, retail, warehouse, etc.).

Chairman Muller and Commissioner Leifer both did not feel it should be mandatory. Commissioner Leifer commented that this is all mandated from the top. He believes that in the future it will be tied to grant money, etc.

Chairman Muller commented that he would rather have incentives for more parking, not less. He would not want to mandate it for commercial when the City is not ready to commit to using it in the right-of-ways. Commissioner Leifer concurred that this should not be mandated, but should be a choice. He said that the state needs to work out the numbers and take into consideration the costs that will be incurred to determine whether or not this will be prohibitive.

Steve Roberge indicated that staff would review this. He continued to review the proposed code amendments related to landscaping, clearing, grading, filling, and erosion control.

Commissioner Leifer commented that the LID standards need to be tied into the landscape standards. Mr. Roberge concurred. The landscape standards allow for some flexibility as far as alternative methods, but he will look into this. Commissioner Leifer commented that the landscape requirements should be able to be met by the LID manual.

Mr. Oden reviewed the code amendments related to maintenance of bioretention facilities. He pointed out that the owner would be responsible for work on private property, but in public right-of-way, the responsibility would be borne by the City.

Mr. Roberge reviewed the required ratios of native growth areas.

NEXT MEETINGS

- **February 27**

ADJOURNMENT

Seeing no further business, Chairman Muller solicited a motion to adjourn. ***Motion*** *made by Commissioner Andes, seconded by Commissioner Mathews to adjourn at 9:00 p.m.* ***Motion*** *passed unanimously (5-0).*

_____

Laurie Hugdahl, Recording Secretary

Low Impact Development in The City of Marysville

Traditional Approaches to Land Development and Stormwater Management

- Most trees and other vegetation are removed and native soils are compacted.
- Management techniques are applied at the end of site design.
- Design relies on pipes, stormwater ponds and vaults, and rapid conveyance of stormwater off site.
- Stormwater is managed far from source, after collection and conveyance.

Overview

- Stormwater has harmed, and continues to harm, Puget Sound's and Marysville's community and natural resources.
- Existing land development and stormwater practices along with rapid growth are now ineffective and can be damaging.
- Low impact development is one key factor in the overall approach to managing stormwater.

Limitations of Traditional Approaches

- Not all impacts can be mitigated.
- Infrastructure is expensive.
- Maintenance is expensive, often neglected.
- Uses a lot of land, often not attractive.
- Treats rainwater as a waste, not a resource.

Effects of Stormwater Runoff In Marysville

- Flooding and property damage
- Damage to stream channels during wet months
- Decreased stream flows during dry months and less groundwater recharge
- Serious biological impacts to rivers, wetlands and estuaries
- Capacity issues with WWTP due to urbanization and increase in population
- Impacts to the overall wellbeing and livability of our City

Low Impact Development "LID"

Benefits of LID

- Can better protect water resources.
- Can reduce infrastructure costs.
- Creates more attractive, livable communities.
- Can enhance property values.
- Helps meet DOE stormwater requirements.

The Puget Sound Action Team is an Intergovernmental Partnership

MISSION:

HOW:

GOAL:

Limitations of LID

- Not a substitute for standards and thresholds of the DOE Manual (or local equivalent).
- Does not replace effective land use planning. First determine where to protect and where to direct growth.
- Some areas like steep shoreline bluffs and till soils may not be suitable for increased infiltration.

Action Team 2005–06 LID Local Regulation Assistance

- Funding from Ecology, EPA Region 10, AHBL & the Action Team
- Cities helped: Bellingham, Edmonds, Issaquah, Kirkland, Lacey, Marysville, Normandy Park, Port Angeles, Port Orchard, Poulsbo, Redmond, Woodinville
- Counties helped: Clallam, Jefferson, Kitsap, Mason Snohomish, Thurston, Whatcom
- Final recommendations for 2005 is currently available through the web site.

LID is Part of a Comprehensive Stormwater Program

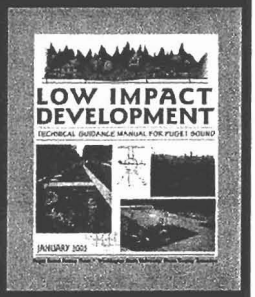
- Land use planning
- Stormwater standards
- Construction site inspections
- Maintenance
- Source control
- Illicit discharge elimination
- ID, rank existing problems
- Public education
- Watershed planning
- Stable funding

Puget Sound Action Team Promotion & Assistance

- Presentations, education, workshops
- Many publications and extensive web site
- *LID Technical Guidance Manual for Puget Sound*
- Financial assistance

LID Technical Manual

- Partnership project
- Guidance only, tailored to Puget Sound
- Best CURRENT thinking
- Complements DOE Stormwater Manual
- Background information, technical specifications



Integrated Management Practices

- Bioretention
- Amended soils
- **Permeable pavement**
- Vegetated roofs
- Rainwater harvesting
- Minimal excavation foundations

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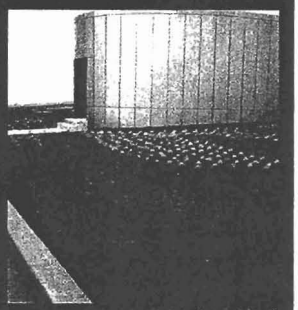

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Integrated Management Practices

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- Amended soils
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- Rainwater harvesting
- **Minimal excavation foundations**

Action Items Were

1. Review [illegible] as prepared by MBI
2. [illegible] with considerations for alternatives [illegible]
3. [illegible]

tree conservation • narrower streets • open drainage • on-site detention, storage and infiltration

Where We Are

The following items are the areas of emphasis that staff directed the team to pursue:

- A new LID section
- Review existing code for conflicts with implementation of LID
- Recommend amendments to specific code sections that may preclude application of LID
- Review street standards and recommend LID options
- Provide options for application in the downtown
- Provide a list of potential LID incentives
- Provide a matrix of the existing and proposed roadway standards to share among participating jurisdictions

MARYSVILLE PLANNING COMMISSION

February 27, 2007 **7:00 p.m.** **City Hall**

CALL TO ORDER

Chairman Muller called the February 27, 2007 meeting of the Marysville Planning Commission to order at 7:10 p.m. The following staff and commissioners were noted as being in attendance.

Chairman: Steve Muller

Commissioners: Deirdre Kvangnes, Jerry Andes, Dave Voigt, Steve Leifer, Toni Mathews

Staff: Steve Roberge, Senior Planner
Shane Oden, Associate Engineer
Laurie Hugdahl, Recording Secretary

Chairman Muller noted the excused absence of Commissioner Becky Foster.

APPROVAL OF MINUTES

February 13, 2007

Commissioner Leifer expressed concern about the contents of the minutes and requested more time to review them.

Motion made by Commissioner Kvangnes, seconded by Commissioner Andes, to postpone approval of the February 13, 2007 minutes until the next meeting. Motion passed unanimously (5-0).

AUDIENCE PARTICIPATION

None.

HEARING

Low Impact Development (LID) Regulations

Staff Presentation:

Steve Roberge gave an overview of the LID Regulations. He explained that there are two ways to use the code – either a full buy-in or a partial buy-in. A full buy-in

would utilize the whole chapter 19.49. A developer utilizing a partial buy-in would pick and choose pieces.

He reviewed the highlights of the regulations:

19.06.268: Impervious Surface definition, low impact development methods, reduction of storm detention areas (50%)

19.16.080 – Parking Area Landscaping – dimensions

19.16.100 – Added minimum tree ratio. Removed section regarding exceeding the minimum parking requirements.

Commissioner Leifer emphasized the need to make sure that the landscaping code and the LID requirements can coexist. Mr. Roberge was confident that they can coexist due to the flexibility of the landscape code.

Chairman Muller referred to the landscaping requirements for parking. He asked if the landscaping between the parking lot and the city street counted. Mr. Roberge said that it is counted as perimeter landscaping and is addressed in a different section of the code.

Commissioner Leifer asked why the landscaping area between the parking lot and the building is exempt from the calculations. Mr. Roberge replied that a lot of times it does not provide much for the parking lot. Chairman Muller added that the screening effect of the landscaping from the street is important to the City. The City prefers to have landscaping tied to the street.

Commissioner Leifer commented on the need to have language that allows soil treatment to be handled with a couple of options. Mr. Roberge said they would be discussing that with chapter 19.49.

19.24.100 – language added to add dispersion facilities within the outer 25% of wetland buffers. Chairman Muller asked how this would be approved. Mr. Roberge explained that the developer's biologist would present it to the City as a package; the City would have the final approval.

19.28 Clearing and Grading – Don't disturb an area unless necessary

20.12 – Preliminary Subdivision Review

20.12.010 Preliminary Application Requirements - Full buy-in option must be made known up front.

20.24.070 Plat Landscaping Requirements - Authority rests with the Community Development Director.

20.24.090 Street Improvements – loop access roads encouraged

20.24.110 Drainage Improvements – LID methods encouraged

20.24.250 Site Improvements Designated

Chapter 19.49 Low Impact Development – Steve Roberge reviewed each section as contained in the handout to the Planning Commission.

19.49.040 Preservation and amendment of topsoils

Shane Oden, Associate Engineer, reviewed the discussion at the last meeting and Commissioner Leifer's concern about the amendment of topsoils. Commissioner Leifer felt that if you have professionally prepared studies to verify the soil that is already onsite it would be redundant to export that and import soil.

Mr. Oden stated that amended soils are addressed in two sections. 19.16.100 refers only to planting soil. If the developer buys into the whole chapter 19.49, then they would have to amend soils in the appropriate areas. Although the City can allow somebody to use the soil gradation requirements on any development, he explained that the City wants to maintain control over this decision.

Commissioner Leifer asked if there is a way for someone to prove that what they have on their site is acceptable. Mr. Oden replied that this would be determined by the City based on the geotechnical report. By not having that language in there, the City is not saying it can't be done. Staff just wants control over when it is done and the ability to look at it as a whole.

19.49.050 Stormwater management – allows for reduction of pond size

19.49.060 – maximum impervious surface levels (different than regular code)

Commissioner Leifer asked if a person would end up with less buildable space with the LID code. Mr. Roberge explained that it would depend on the specific site. There is a pond reduction, a discount for porous surfaces. You could potentially end up with more than 70%.

Commissioner Leifer commented that LID is supposed to be better for society and the environment. The City should not do anything that serves as an economic disincentive to doing this. Steve Roberge commented that he does not think this will penalize people because they will be getting a credit/reduction from the LID manual. Shane Oden commented that LID development is not suitable for all developments,

but they do want to eliminate any roadblocks from the code for anyone that wants to do LID.

Mr. Roberge addressed the comments from Brad Ack of the Puget Sound Action Team as contained in the letter to Steve Roberge in the packet dated October 27, 2006. Most of the comments have been addressed, but it was noted that in 19.49.060 – 1(table) – the 3rd box on the left should be changed to *"Urban Residential ≥**6.0** Dwelling Units per Acre"*.

19.49.070 Density bonus and dimensional standard modifications

19.49.080 Review Process – Discusses how this process will take place. Encourages developers to communicate early with staff if they plan on doing an LID.

Steve Andes referred to section 19.49.030 Protected native growth areas and asked about situations where there was no native growth protection to be had. Mr. Roberge replied that the idea is to have area that is not covered with some sort of surface so that the natural systems are in place. Things may need to be planted if not already there. Commissioner Andes expressed concern about the future outcome of these areas. Mr. Roberge said that this would not take away from the density of the buildable area. He clarified the terminology. Native growth area is an area designated for native growth. He commented that this is generally done in a separate tract. A HOA would generally be responsible for its maintenance.

Chairman Muller asked how it would be handled if one doesn't exist and you have to plant. Shane Oden referred to the code requirements (19.49.030) and stated that a plan shall be prepared and native growth areas shall be limited to certain areas. There are options in the code for creating this.

There was concern among the Planning Commission about the confusion between the two similar terms – *NPGA (Native Protected Growth Area)* and *PNGA (Protected Native Growth Area)*. There was consensus to use the term *native vegetated area* to avoid confusion.

Commissioner Leifer asked about the purpose of the native protected growth area. Mr. Oden explained that the intent is to eliminate as much impervious surface and any disturbance as possible. This area could be native or rehabilitated habitat.

Public Testimony:

At 8:24 p.m. Chairman Muller solicited public testimony on the LID Regulations. Seeing none, he closed the public hearing.

Commission Discussion:

Commissioner Voigt referred to the PSAT's comments regarding 14.15.061 – drainage standard which states that the City may bill private property owners for maintenance services that the City is compelled to make. He wondered if the designer or constructor should be the one on the hook instead of the property owner since it refers to not functioning *as designed*.

Mr. Oden commented that if the LID facility is not being maintained and therefore does not operate properly, then the City should have the authority to go in and take care of that. Commissioner Voigt suggested replacing ***as designed*** with ***due to lack of maintenance***. Commissioner Leifer commented that a negative impact to adjacent property should be a prerequisite. Mr. Roberge explained that this would be complaint-driven.

Commissioner Voigt referred to the Tulalips comments requesting feedback on the performance of LIDs over time. He asked if there was a way of measuring the performance of LIDs. Mr. Oden remarked that there are many studies that show the performance of these types of facilities, but he is not sure if public works will be keeping track of that.

Commissioner Leifer commented on the Tribes' petitioning the Federal Court to decide whether or not their treaty rights afford them the right to monitor culverts.

Steve Roberge summarized the proposed modifications to the code as follows:

- 14.17.035 – Strike ***as designed***; replace with ***due to lack of maintenance***
- 19.49.030 - Strike ***Protected Native Growth Area***; replace with ***Native Vegetated Area***
- 19.49.060-1 (table) - Add ***≥6.0***

Motion made by Commissioner Voigt, seconded by Commissioner Andes, to forward the Low Impact Development (LID) Regulations to Council with the above modifications. Motion passed unanimously (5-0).

NEXT MEETING

- **March 13**

ADJOURNMENT

Seeing no further business, Chairman Muller solicited a motion to adjourn. ***Motion*** *made by Commissioner Kvangnes, seconded by Commissioner Mathews to adjourn at 8:43 p.m.* ***Motion*** *passed unanimously (5-0).*

_____

Laurie Hugdahl, Recording Secretary

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Engineering Design and Development Standards Proposed Revisions	AGENDA SECTION:
PREPARED BY: John Cowling, Engineering Services Manager – Land Development	AGENDA NUMBER:
ATTACHMENTS: 1. Draft Ordinance. 2. Summary of Key Changes 3. Chapter 2 Water Distribution Design and Construction Standards. 4. Chapter 3 Engineering Design and Development Standards. 5. Chapter 4 Drainage and Erosion Control Design Standards. 6. Chapter 5 Sanitary Sewer Design Standards.	APPROVED BY: MAYOR CAO
BUDGET CODE:	AMOUNT:

The proposed revisions are intended to clarify various areas of the standards, update to be more consistent with City vision for development, and update various sections for consistency with WSDOT, AASHTO, DOE and other Standards & Specifications. Revisions are proposed to the following chapters:

- Chapter 2 Water Distribution Design & Construction Standards & Specifications
- Chapter 3 Engineer Design & Development Standards
- Chapter 4 Drainage & Erosion Control Design Standards
- Chapter 5 Sanitary Sewer Design Standards.

RECOMMENDED ACTION: Public Works and Community Development staff recommends Council approve the Engineering Design and Development Standards Revision as proposed.
COUNCIL ACTION:

CITY OF MARYSVILLE
Marysville, Washington

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF MARYSVILLE, WASHINGTON, AMENDING THE CITY'S ENGINEERING DESIGN AND DEVELOPMENT STANDARDS, BY AMENDING THE WATER DISTRIBUTION DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS (CHAPTER 2), THE ENGINEERING DESIGN AND DEVELOPMENT STANDARDS (CHAPTER 3), THE DRAINAGE AND EROSION CONTROL DESIGN STANDARDS (CHAPTER 4), AND THE SANITARY SEWER DESIGN STANDARDS (CHAPTER 5), AUTHORIZING THE CITY ENGINEER TO MAKE TECHNICAL AMENDMENTS TO SAID STANDARDS, AND AMENDING THE PRIOR ORDINANCES THAT ADOPTED AND AMENDED SAID STANDARDS.

WHEREAS, the City Council of the City of Marysville finds that from time to time it is necessary and appropriate to review and revise the City's design, construction, and development standards related to water distribution, streets, drainage and erosion control, and sanitary sewer to meet industry standards and other applicable rules and regulations; and

WHEREAS, the adoption of engineering design and development standards assists in defining the appearance and function of city streets and other necessary public facilities; and

WHEREAS, the adoption of comprehensive, detailed engineering design and development standards will assist in the orderly development of infrastructure within the City; and

WHEREAS, adoption of engineering design and development standards is deemed to be in the interest of public health, safety, and welfare; and

WHEREAS, the City sent notification to the development, engineering, and consultant community concerning the proposed revisions seeking input and comments; and

WHEREAS, the City placed the proposed revisions on the City's web page and presented highlights of the proposed amendments during the City annual developer breakfast; and

WHEREAS, the City has complied with the requirements of the State Environmental Policy Act, Ch.43.21C RCW, (SEPA) by adopting a determination of non-significance for the adoption of the proposed revisions to the City's Engineering Design and Development Standards; and

WHEREAS, at a public meeting on May 14, 2007, the Marysville City Council reviewed and considered the amendments to the City's Engineering Design and Development Standards;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON DO ORDAIN AS FOLLOWS:

Section 1: The Water Distribution Design and Construction Standards and Specifications (Chapter 2), originally adopted in November 1998 and revised in October 2001, are hereby amended as set forth in the attached Exhibit A.

Section 2: The Engineering Design and Development Standards (Chapter 3), originally adopted in September 1999 and revised in October 2001, are hereby amended as set forth in the attached Exhibit B.

Section 3: The Drainage and Erosion Control Design Standards (Chapter 4), originally adopted in April 1999 and revised in August 2001, are hereby amended as set forth in the attached Exhibit C.

Section 4: The Sanitary Sewer Design Standards (Chapter 5), originally adopted in April 1997 and revised in August 2001, are hereby amended as set forth in the attached Exhibit D.

Section 5: The City Engineer is hereby authorized to administratively make technical amendments to the Engineering Design and Development Standards without City Council approval, provided that such amendments are consistent with applicable City ordinance and code provisions.

Section 6: Each of the ordinances originally adopting and subsequently amending the above referenced standards and specifications are hereby amended as set forth in the attached Exhibits A, B, C, and D.

Section 7: No Special Duty Created:

a. It is the purpose of this ordinance to provide for the health, welfare, and safety of the general public, and not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefitted by the terms of this ordinance. No provision or term used in this ordinance is intended to impose any duty whatsoever upon the City or any of its officers, elected officials, agents, or employees for whom the implementation or enforcement of this ordinance shall be discretionary and not mandatory.

b. Nothing contained in this ordinance is intended to be, nor shall be construed to create or form the basis for, any liability on the part of the City or its officers, agents, and employees for any injury or damage resulting from the failure of any premises to abate a nuisance or to comply with the provisions of this ordinance or be a reason or a consequence of any inspection, notice , or order, in connection with the

implementation or enforcement of this ordinance, or by reason of any action of the City related in any manner to enforcement of this ordinance by its officers, agents, or employees.

Section 8. Severability. If any section, subsection, sentence, clause, phrase or work of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality thereof shall not affect the validity or constitutionality of any other section, subsection, sentence, clause, phrase or word of this ordinance.

PASSED by the City Council and APPROVED by the Mayor this _____ day of _____, 2007.

CITY OF MARYSVILLE

By: _____
DENNIS L KENDALL, MAYOR

Attest:

By: _____
CITY CLERK

Approved as to form:

By: _____
GRANT K. WEED, CITY ATTORNEY

Date of Publication: _____

Effective Date: _____
(5 days after publication)

COMMUNITY DEVELOPMENT DEPARTMENT
80 Columbia Avenue ◆ Marysville, WA 98270
(360) 363-8100 ◆ (360) 651-5099 FAX

Key Changes in the 2007 EDDS Update

Water Distribution Design and Construction Standards and Specifications

- General grammatical errors, clarifications & references to other documents
- Updated water meter standards for double service meter boxes and new AMR system
- New requirements for watermains with slopes 15% or greater
- New detail for hydrant guard posts & valve marker posts
- Updated Permanent Blow Off Detail
- Updated Pipe Anchor Detail

Sanitary Sewer Design Standards

- General grammatical errors, clarifications & references to other documents
- Revision for maintenance of side sewers to be the responsibility of the property owner from the building to the main line
- Revision to sewer main material types based on depth of sewer
- Requirement and new details for waterproof membranes on manholes within certain areas of the city with high ground water
- New private grinder pump section and detail
- Update to grease interceptor details for larger sized facilities

Drainage and Erosion Control Design Standards

- General grammatical errors, clarifications & references to other documents
- General revisions for consistency with Department of Ecology Stormwater Management Manual (DOE Manual)
- New Low Impact Development (LID) section
- Removal of sections no longer applicable or covered under the DOE Manual
- New requirement & detail for Coalescing plate separators and Oil Stop Valves for certain applications
- New requirement for chain link fence around detention facilities to be black vinyl/powder coated
- New requirement for identification signs for detention facilities and stream crossings
- New language to grant the City rights for emergency maintenance of private facilities with reimbursement by the owner for costs incurred

Engineering Design and Development Standards

- General grammatical errors, clarifications & references to other documents
- Update to minimum Horizontal Curvatures and Sight Distance requirements based on latest AASHTO and WSDOT standards
- New language and detail for 90 degree elbow intersections
- New language and details for PRD Access Streets
- Update to mailbox requirements per Postmaster
- New language regarding clear zone requirements per WSDOT Design Manual
- Allowance for rolled curb in cul-de-sacs and PRD's, requiring City Engineer approval
- New Traffic Signal Specifications section
- Update to As-built submittal requirements
- Updated Road Classifications including newly annexed areas
- Updated sidewalk requirements (6' if adjacent curb, 5' if adjacent planter strip)
- Revised private road standard from 24' pavement with 4' walkway to 20' pavement with 4' planter & 4' walkway
- Updated Industrial Access Street to a 3 lane section, including sidewalks
- New sidewalk replacement requirements & detail
- New flow through curb detail

Proposed revision to adoption Ordinance

- Grant authority to the City Engineer to make minor administrative changes to the EDDS as necessary.

CHAPTER 2

WATER DISTRIBUTION DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS

November 1998
Revised May 2007

Prepared by :

City of Marysville
Public Works / Community Development

CITY OF MARYSVILLE

DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS

CHAPTER 2 - WATER DISTRIBUTION

CHAPTER 2

WATER DISTRIBUTION

2-000 Water

2-010 General Any extension of the City of Marysville Water System must be approved by the Engineering Department. All extensions must conform to Department of Health guidelines, the North Snohomish County Coordinated Water System Plan, City of Marysville Water System Plan, and Fire District No. 12 requirements.

All construction of water mains and related appurtenances shall conform to these Standards, applicable American Water Works Association (AWWA) Specifications and the WSDOT Standard Specifications. The general requirements of AWWA and the WSDOT Standard Specifications shall apply unless they are inconsistent with any of the provisions of this particular section. Should inconsistencies occur, these Standards shall have precedence.

In designing and planning for any development, it is the developer's responsibility to see that adequate water for both domestic use and fire protection is attainable. The developer must show, in all proposed plans, how water will be supplied and whether adequate water pressure will be attained in case of fire.

The fire flow requirements are established by the International Building Code. The Public Works Department will evaluate whether the existing system will meet that requirement or if system improvements are required. Due to seasonal and other variables associated with flow tests, these flow tests will not be used to measure the system's ability to meet the fire flow requirements.

An analysis performed by the City of the system may be required if it appears that the system might be inadequate. The developer shall be assessed any and all applicable fees for the analysis.

Anyone who wishes to extend or connect to the City's water system should contact the Engineering Department for a water extension/connection fee estimate. This fee estimate is

an estimate of the costs due the City for a waterline extension or connection. A copy of the estimate form may be found in the appendix.

Prior to the release of any water meters, all Public Works improvements must be completed and approved including granting of right-of-way or easements, and all applicable fees must be paid.

Issuance of building permits for new construction of single family residences shall not occur until final Public Works approval is given. For commercial projects, building permits may be issued upon completion and acceptance of the requirement fire protection facilities. A construction bond, in accordance with Section 14.03.430 Marysville Municipal Code (MMC), will be required for the remaining public works improvements. Certificate of occupancy will not be issued until final Engineering Department approval is given for all improvements.

2-020 Design Standards The design of any water extension/connection shall conform to City Standards and any applicable standards as set forth herein and in Title 14 of the City of Marysville Municipal Code.

Water main extensions will be required when the property does not front on a water main or when the existing water main is not adequate for the increased use proposed.

The layout of extensions shall provide for future continuation and/or "looping" of the existing system as determined by the City. Utility mains shall be extended to and through the extremes of the property being developed. Main extensions shall be extended as required in Section 14.03 MMC .

The minimum size shall be 8 inches in diameter unless otherwise approved by the Utilities. Water main extensions and/or new fire hydrant installations may also be required per the requirements of the City Fire Marshal or City Engineer.

The General Notes at the end of this chapter shall be included on any plans dealing with water system design.

2-030 Connection to Existing Water Main The developer's engineer shall be responsible for determining the scope of work for connection to existing water mains.

It shall be the Contractor's responsibility to field verify the location and depth of the existing main and the fittings required to make connections to the existing mains. Connection of a new main to existing shall only be done through a private double check valve assembly until testing and purity.

The connection to a water main in use shall be made by the Developer and only at such time as the City Engineer or Utilities Superintendent permits. Work required to make the connection shall be continuous, and done in a timely manner with a sufficient number of men employed to insure the least interference with the City's water system. The Developer shall notify the City Inspector and the Utilities Superintendent at least forty-eight (48) hours prior to the scheduled time of the connection. The Marysville Water Department shall open or close all valves for construction, filling, testing, and flushing water mains and submit the bacteriological water sample. Existing valves, fittings, and other items removed to install the new main shall be salvaged by the Developer and delivered to the City's storage yard.

Ends of abandoned water main shall be plugged by filling with Class 3000 or Commercial Concrete for a minimum longitudinal length of twelve (12) inches.

2-040 Service Interruption The Contractor shall give the City a minimum of 48 hours notice of any planned connection to an existing pipeline. This includes all cut-ins and live taps. Notice is required so any disruptions to existing services can be scheduled. The City will notify customers involved or affected of the water service interruption. The Contractor shall make every effort to schedule water main construction with minimum interruption of water service. In certain situations, the City may dictate scheduling of water main shutdowns so as not to impose unnecessary shutdowns during specific periods to existing customers.

2-050 A. Water System Materials All materials shall be new and undamaged. The same manufacturer of each item shall be used throughout the work.

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.

All materials not specifically referenced shall comply with applicable sections of ANSI, ASTM, AWWA, or the WSDOT Standard Specifications.

Approved manufacturers and model numbers of various materials are listed in Approved Materials List of this chapter. When specific manufacturers or models are listed, no substitutions will be allowed without prior approval by the City Engineer.

B. Main Line Water mains shall be sized to provide adequate domestic and fire flow demands at the required residual pressure. Fire flow requirements will be determined by Fire District; however, the quantity of water required will in no case be less than 1000 gpm at 20 psi residual pressure for single family residential areas.

The minimum water main size shall be 8 inches diameter as long as fire flow requirements can be met. Larger size mains are required in specific areas outlined in the Comprehensive Water System Plan. Nothing shall preclude the City from requiring the installation of a larger sized main in areas not addressed in the Comprehensive Water System Plan if the City determines a larger size is needed to meet fire protection requirements for future service.

C. Dead End Line No dead end line less than 8 inch in diameter shall be longer than 200 lineal feet. Fire protection must be attainable for all lots from main line hydrants and it is apparent that the main will not be extended at any time in the future.

D. All pipe for water mains shall have flexible gasketed joints and shall comply with the following:

Ductile Iron Pipe:

Ductile iron pipe shall conform to ANSI Specification A21.51, 1976, AWWA C151-76, or the latest revision thereof and shall be of the thickness Class 52, unless otherwise specified by the City Engineer. The pipe shall be furnished with rubber gasketed push-on type joints except where flanged joints are specifically required by the City Engineer. Joint details shall be as specified in ANSI A21.11. Pipe with push-on fitting joints shall be suitable for use with mechanical joint fittings. The pipes shall be coated as specified in ANSI A21.51 and be furnished with cement mortar lining as specified in ANSI A21.4.

The Contractor shall furnish certification from the manufacturer of the pipe and gasket being supplied that the inspection of all the specified tests have been made and the results thereof comply with the requirements of the above-referenced standards.

E. All fittings for ductile iron pipe shall be ductile iron compact (short body) fittings conforming to AWWA C153 or Class 250 gray iron conforming to AWWA C110 and C111. All fittings shall be cement mortar lined conforming to AWWA C 104. Plain end fittings shall be ductile iron if mechanical joint retainer glands are installed on the plain ends. All fittings shall be connected by flanges or mechanical joints.

Flanges shall be Class 125, drilled in accordance with ANSI A21.10.

Gasket for flanged fittings shall be 1/16-inch tick "Cranite" or approved equal. Gaskets for push-on type and mechanical joints shall conform to ANSI A21.11.

Rubber gaskets for push-on joints or mechanical joint (M.J.) shall be in accordance with ANSI A21.11, AWWA C111.

Gasket material for flanges shall be neoprene, Buna N, chlorinated butyl, or cloth-inserted rubber.

The type of connections shall be specified on the plans as push-on joint, mechanical joint (M.J.), plain end (P.E.), flanged (FL), the threaded.

F. Polyethylene encasement when required shall be eight mil. tube or sheet stock and shall be furnished with all D.I. pipe unless otherwise specified. Materials shall comply with AWWA C105.

G. The minimum cover for all water mains from top of pipe to finish grade shall be 42 inches, and maximum depth of 60 inches, unless otherwise noted.

H. Couplings Flexible couplings and transition coupling cast components shall be ductile iron. Center rings and end rings shall be ductile iron in accordance with ASTM 536-80, Grade 65-45-12.

Gasket material shall be virgin SBR in accordance with ASTM D2000 3 BA715.

Bolts shall be high strength, low alloy steel trackhead bolts with national course rolled thread and heavy hex nuts. Steel shall meet AWWA/ANSI C11/A21.11 composition specifications.

I. Adapters All flange by mechanical joint (FL x MJ) adapters and asbestos cement by mechanical joint (AC x MJ or Hub x MJ) adapters shall be ductile iron.

J. Bolts in Piping Bolts shall be malleable iron Cor-ten, or stainless steel.

T-bolts shall be malleable iron Cor-ten in accordance with AWWA/ANSI C111/A21.11. Stainless steel bolts shall meet the requirements of ASTM A-307, Grade A. Shackle rods, nuts, and washers shall be hot-dipped galvanized in accordance with AASHTO M232 and/or coated thoroughly with coal-tar/asphaltic material.

Stainless steel nuts, bolts, and washers shall be type 304.

2-060 Hydrants

A. All buildings constructed in the City of Marysville or areas served water by the Marysville water system shall be served by fire hydrants. Such fire hydrants shall be served by the City or by other adequate means as approved by the City Engineer and Fire District 12.

B. The lead from the service main to the fire hydrant shall be ductile iron cement mortar lined Class 52 no less than 6 inches in diameter, with a maximum length of lead of 50 feet. (MCC 14.03.050). Where leads require more than one length of pipe, field lock gaskets are required.

C. Fire hydrants shall be installed in accordance with Standard Plan No. 2-060-001, at locations as shown on the approved plans. They shall be painted with 2 coats of high gloss Caterpillar Yellow Preservative 43-616 type paint.

Hydrants shall be the "Traffic Model" type with approved breakaway features. All hydrants shall be brass to brass subseat, minimum valve opening of 5-1/4 inches "O" ring stem seal, 6 inch mechanical shoe connection, 1-1/4 inch pentagonal operating nut.

Fire hydrants shall have two, 2-1/2 inch outlets and one 4-1/2-inch pumper port outlet. All outport threads shall be National Standard thread. The valve opening shall be 5-1/4 inch diameter. The hydrant shall have a positive and automatic barrel drain.

Hydrant shall be M & H, Mueller, Clow Medallion, or approved equal. All hydrants shall be bagged until system is approved.

All hook-ups to fire hydrants for temporary water for whatever purpose shall be approved by the utility division and will require a Hydrant Use Permit.

Hydrant valves installed in unpaved areas shall have a 4-inch thick, 2-foot squareconcrete pad placed around them.

Hydrant shall have a reflective blue raise pavement marker 4" off centerline.

D. The Department of Public Works and Fire District 12 work together to ensure that adequate hydrant spacing and installation are achieved.

Unless otherwise required by the governing authority, the following guidelines shall apply for hydrant number and location:

1. At least one hydrant shall be installed at all intersections.

2. All hydrants newly installed in a single family residential area shall be supplied by not less than eight (8) inch circulating mains. Dead end mains supplying fire hydrants must be at least eight (8) inches in diameter, except hydrant leads up to fifty (50) feet long may be six (6) inches in diameter.

3. Hydrant spacing of 600 feet shall be required for single family residential areas.

4. Fire hydrants shall be installed at the ends of dead end lines which are more than three hundred (300) feet in length. Said hydrants may later be moved to conform to standard spacing requirements when the main is again extended, under supervision of the Superintendent.

5. No one shall plant any vegetation, erect any structure, or perform any action which results in obstructing the view of a fire hydrant for a distance of fifty (50) feet. The owner and/or occupant of any area in which a hydrant is located shall be responsible for removing weed and tree growth from around the hydrant for a distance of not less than ten (10) feet. The purpose of this part is to maintain a clear visual area around the hydrant.

6. All fire hydrants installed as required by these standards shall be served by the City of Marysville unless conditions warrant a waiver of this provision.

7. Fire hydrants shall be set as shown in standard detail 2-060-001.

8. Where needed, the Department of Public Works or Fire District 12 may require hydrants to be protected by two or more posts, per standard plan 2-060-002.

9. Fire hydrants must be installed, tested, and accepted prior to final plat acceptance or the issuance of an occupancy permit.

10. Fire hydrants shall be installed with a tee and an auxiliary gate valve between the service main and the hydrant sufficient to permit repair and replacement of the hydrant without disruption of water service. The location of all valves and fire hydrants installed shall be properly and accurately marked on identifiable plans or drawings.

11. Hydrants shall stand plumb, be set to the finished grade with the lowest outlet of the hydrant no less than eighteen (18) inches above grade and no less than thirty-six (36) inches of clear area about the hydrant for clearance of a hydrant wrench on all outlets and on the control valve. The pumper port shall face the street. Where the street cannot be clearly defined or recognized, the port shall

face the most likely route of approach and location of the fire truck while pumping as determined by the City Engineer.

12. When any portion of a proposed building is in excess of 200 feet from a public street right-of-way, on-site hydrants or a building sprinkler system shall be required. Such hydrants shall be located per Fire District 12 and easements for such hydrants, leads, and water mains, shall be granted to the City.

13. The installation of fire hydrants shall be required of the owner and/or developer of any future business, commercial, institutional, or industrial facility as follows:

    a) Buildings having required fire flows of less than 2500 gpm, may have fire hydrants on one side of the building only.

    b) When the required fire flow is over 2500 gpm, the fire hydrants shall be served by a main which loops around the building or complex of buildings and reconnects back into the distribution main.

    c) The number of fire hydrants shall be determined on an average spacing of three hundred (300) feet computed on an imaginary line parallel to and not less than fifty (50) feet from the structure. All hydrants are to be accessible to fire department pumpers over roads capable of supporting such fire apparatus. The City Engineer shall determine the location of the fire hydrants depending on utility, topography, and building location. Hydrants shall be a minimum of fifty (50) feet out from the building, minor deviations may be granted.

    d) The lead from the service main to the hydrant shall be no less than six (6) inches in diameter. Any hydrant leads over fifty (50) feet in length from service to the hydrant shall be no less than eight (8) inches in diameter. The provisions of this part shall apply without exception and regardless of the size of the service main.

    e) Fire hydrants shall be set as shown in standard detail 2-060-001.

f) For requirements regarding use, size, and location of a fire department connection (FDC) and/or post indicator valve, contact Fire District 12. Location of FDC shall be shown on water plans.

g) Fire hydrants must be installed, tested, and accepted prior to the issuance of an occupancy permit.

h) All fire hydrants installed as required by these standards shall be served by the City of Marysville unless conditions warrant a waiver of this provision.

i) The installation of private hydrants as defined herein shall be limited to those cases when the number of public hydrants installed under the distance provision of this section shall be insufficient in number. Private hydrants shall meet City requirements for public hydrants and shall be located as designated by the approving authority. The City of Marysville shall have the right to go upon the premises and to use the private hydrant for public purposes, including testing, flushing, and emergency uses.

j) Installation shall further conform to the provisions in 2-060 D 4,5,8, 10, and 11.

2-070 Valves All valves and fittings shall be ductile iron with ANSI flanges or mechanical joint ends. All existing valves shall be operated by City employees only.

All valves shall be inspected upon delivery in the field to ensure proper working order and damage to protective coatings before installation and shall be free of all rust and dirt. They shall be set and jointed to the pipe in the manner as set forth in the AWWA Standards for the type of connecting ends furnished. No valves shall be located in such position as to place the valve chamber or box in any roadside ditch, drainage ditch, or channel.

Valves shall be installed in the distribution system at sufficient intervals to facilitate system repair and maintenance but in no case shall be less than one valve every 1000 feet. Generally, valving shall be installed at all intersections and on each end of easements. Specific requirements for valve spacing will be made at the plan review stage.

A. Gate Valve, 4 inch to 12 inch. The design, materials, and workmanship of all gate valves shall conform to AWWA C509-80 latest revision. Gate valves shall be resilient wedge non-rising stem (NRS) with two internal O-ring stem seals. Gate valves shall be Mueller or M & H, or approved equal.

Gate valves shall be used on all 4-inch to 12-inch lines.

B. Butterfly valves shall conform to ANSI/AWWA C504, Class 150, with cast iron short body and "O" ring stem seal. Valves in chambers shall have a manual crank operation. Buried valves shall have a stem extension with AWWA 2-inch operating nut and suitable valve box. Butterfly valves shall be Dresser "450", or approved equal.

Butterfly valves shall be used on all lines 14 inches and larger.

C. Valve Box. All valves shall have a standard APWA cast iron water valve box set to grade with two-piece, extension type cast iron riser from valve. Valve box shall have a lug type cover, 8" top and 24" bottom. Valve box lids shall have the word "WATER" cast in the upper surface.

If valves are not set in paved area, a 4-inch thick 2 foot square concrete pad shall be set around each valve box at finished grade. In areas where valve box falls in road shoulder, the ditch and shoulder shall be graded before placing asphalt or concrete pad. The valve and valve box shall be set plumb with the valve box centered on the operator nut. Valve boxes shall be set flush in pavement or road shoulder. See standard drawing 2-070-001, and 2-070-004.

D. Operating Valve Nut Extension. A valve stem extension shall be installed whenever the valves operating nut is more than 48 inches below finished grade. Extensions are to be a minimum of 12 inches with only one extension per valve. The operator nut extension

shall extend into the top section of the valve box and shall clear the bottom of the lid by a minimum of 10 inches.

E. Valve Marker Post. Marker posts shall be carsonite CUM-375 blue with 2 anchors at bottom of marker. See standard plan 2-070-002.

F. Check Valve. Check valves for permanent installations other than cross connection control shall be rated for 150 psi working pressure, unless otherwise specified, and shall have adjustable tension lever and spring to provide non-slamming action under all conditions unless otherwise specified.

G. Air and Vacuum Release Valve. Air and vacuum release valves (ARV) shall be APCO 145C combination air release valve. Installation shall be as shown on standard drawings. The installation shall be set at the high point of the line when required. Where possible pipes are to be graded to limit the number of ARV's needed.

2-080 Pressure Reducing Stations and Pressure Reducing Valves

A. Unless otherwise noted in Comprehensive Water Plans, a standard pressure reducing station shall have a Cla-Val model 90G-01 BCSY pressure reducing main valve of approved size with flanged ends. Pressure reducing valves shall have flow opening/closing speed controls, epoxy coated body, and valve position indicator. A 2" Cla-Val model 90G-01ABCS pressure reducing valve with threaded ends shall be installed on the bypass side of the larger pressure reducing valve line. Pressure reducing valves, 2" and smaller, shall be equipped with stainless steel trim (seal, stem, and cover bearing). Pilot controls shall be on the side of PRV facing the vault interior. See Standard Plans 2-080-001 and 2-080-002.

Strainers shall be installed on the inlet side of each pressure reducing valve. The bypass shall be fitted with bronze ball valves sized to correspond with the bypass inlet and outlet size.

Strainers shall be iron bodied "Y" type equal in size to corresponding pressure reducing valve. Strainer shall feature bolted cover machined to hold screen securely in place and tapped with iron pipe threads for corporation stop. Screen shall be constructed

from perforated stainless steel. Main-line strainer shall have flanged-ends and bypass strainer shall have threaded ends.

The vault shall be equal to Utility Vault Co. model 687-LA with cover 687-TL-2-322P as specified in the standard detail. Vault exterior shall be coated with coal tar enamel, or equal. See standard drawings.

When pressure reducing stations are required or needed, all pipe, fittings, and equipment shall be supported and blocked against static and dynamic loading in accordance with the equipment manufacturers' recommendations and as approved by Public Works. Drain lines from pumps or other equipment shall be piped to a below grade drainage system connected to the station sump or drain.

B. Individual Pressure Reducing Valve (Residential). When individual lot pressure exceeds 80 psi, an individual pressure reducing valve shall be installed by the property owner and shall be direct-action piston type with integral strainer and bypass. Valve body shall be bronze with threaded outlet end and integral union on inlet end. Valve shall be line-sized with spring range from 25 to 75 psi. Individual pressure reducing valves shall be Wilkens 600 series, Watts U5, or approved equal. The reducing valve shall be the property of the home owner.

All other appurtenances shall be as shown in the Standard Drawing 2-080-003.

C. Individual Pressure Reducing Valve (Multi-Family or Commercial). Individual pressure reducing valve (PRV) shall be Mueller Model H-9300 or an approved equal. An individual PRV shall be preceded by a strainer. PRV's shall be direct-acting and diaphragm actuated with a spring mechanism for a range of 25-85 psi. Valve shall be line sized. Valve body shall be cast bronze with inside iron pipe threads on both ends. All other appurtenances shall be as shown in the standard drawing 2-080-003 These appurtenances shall be the property of the landowner.

2-090 Service Connection

A. All service connections relating to new development shall be installed by the developer at the time of mainline construction. After the lines have been constructed, tested, approved, and a letter of acceptance has been issued, the Owner may apply for a water meter. The City will install a water meter after the application has been made and all applicable fees have been paid. Water meters will be set only after system is inspected and approved.

B. When water is desired to a parcel fronting an existing main but not served by an existing setter, an application must be made to the City. Upon approval of the application and payment of all applicable, fees, the City will allow tapping of the main, and installation of the meter, box, and setter.

C. Corporation stop shall be all bronze alloy and shall be Ford, Mueller, or approved equal in accordance with AWWA Standard C800 with AWWA tapered thread (CC) inlet by compression fitting for copper outlet.

Corporation stops for 1" tap shall be ball valve type. Corporation stops for 1-1/2" and 2" tap shall be the ball valve type with D.I. service saddles and I.P. thread inlets by compression fitting outlets.

D. Service connections on 4-inch ductile iron mains or for any service shall be installed with Mueller, Rockwell, Romac or approval equal pipe saddles. Direct taps may be made for 3/4 inch and 1 inch services on thickness Class 52 ductile iron pipe 6 inch I.D. or larger. The minimum acceptable tap size shall be 3/4 inch.

Service saddle shall be all bronze alloy and shall be Romac style 202 with IP thread or approved equal. Saddles used in AC pipe shall have stainless steel straps. All clamps shall have rubber gasket and iron pipe threaded outlets.

E. Service lines shall be copper pipe only.

All copper pipe for underground water service less than 1-1/2" shall be seamless conforming to ASTM B88 (ANSI H33.1) Type "K" annealed tubing.

Copper service pipe 1-1/2" or larger shall be Type K hard drawn, 20' lengths. To avoid couplings under a road, Type K annealed tubing shall be used.

F. Master meters will not be allowed for service to more than one per building. An approved backflow prevention system must be installed in conjunction with any master meter. Deviations to this may be granted by the City Engineer.

G. Meter Setter. Meter setters (1" and smaller) shall have double purpose couplings, unless otherwise specified, angle meter valve with drilled wings for padlock, twelve (12") inches high. The angle copper setter for the size meter to be installed, see Standard Details.

1-1/2" and 2" meter setters shall have vertical inlet and outlet tees with 1" lateral bypass, flanged ball meter valves on inlet and outlet, ball valve on bypass, and padlock wings on all valves, see Standard Details 2-090-002.

H. Meter Box. The Meter Box shall be constructed of LMDPE (Linear Medium Density Polyethylene) for impact strength and shall have a wall thickness of no less than .500". The Meter Box, with cover installed, shall be able to bear a 20,000lb vertical load when transferred through a one-inch (1") thick nine-inch square (9" x 9") plate. Meter Box shall be able to withstand a 200lb lateral load, applied with a four-inch square (4" x 4") plate positioned one-inch (1") below the top center of the box, maximum deflecting shall not exceed one-inch (1").

The Meter Box shall be black on the exterior to prevent UV degradation, and bright white on the interior to reflect light and ease meter reading and service. The box shall be designed in such a way as to have an integral flange, no more that 3" from the top, to support the box in concrete, paving or soil, and a bottom flange a minimum of 1" wide, to help resist subsidence.

The box may have two removable (pre-cut) pipe entry areas, 3" wide x 4" high, located on the center of each end (short side) of the box. The box shall be designed in such a way as to be securely stackable. The box shall weigh no more than fifteen pounds (15 lb) for safety and ease of handling, transport and installation. All dimensions shall be in accordance with Company drawing. Meter boxes shall be as specified in the standard plans.

Cover shall provide a slip resistant surface with a coefficient of friction greater than 0.5 when tested for compliance to ASTM C-1028. Marking shall be indent into the cover

surface to resist wear.

Cover shall be constructed of polymer concrete reinforced with multiple layers of continuous strand woven borosilicate fiberglass cloth. Reinforcing fabric shall be required along the inner and outer surfaces of the cover and incorporated into the matrix such that the glass fiber is not exposed to moisture intrusion. Compressive strength of the material matrix shall be no less than 11,000 psi. Molded cover shall be capable of withstanding vertical load proof test of 20,000 lbf when tested in the corresponding body. Manufacturer shall be able to document compliance with material strength and unit (cover and body) proof of design testing.

Cover shall have a hinged access door made from the same material as the outer portion of the cover and no less that 8"x9" clear opening as the drawing requires.

The box shall weigh no more than fifty pounds (50 lb) for safety and ease of handling, transport and installation. Covers shall be as specified in the standard plans.

l. Any plumbing in a residential or nonresidential facility providing water for human consumption which is connected to a public water system shall be lead free. With respect to solders and flux lead free shall mean no more than 0.2% lead, and with respect to pipes and pipe fittings no more than 8% lead.

2-100 Steel Casing

Steel casing shall be black steel pipe conforming to ASTM A53.

Casing wall thickness shall be 0.250 inch for casings 24 inches or less in diameter and 0.375 inch for casings over 24 inches in diameter.

Carrier pipe for water shall be Ductile Iron, Class 52.

Pipe spacers shall be Cascade style CCS with 8-inch runners as available from Cascade Waterworks or equivalent vendor. Casing pipe and spacers shall be sized for pipe being installed. Install minimum of three spacers per section of pipe. See Standard Drawing 2-100-001.

2-110 Galvanized Iron Pipe

Where galvanized iron pipe is specified, the pipe shall be standard weight, Schedule 40, steel pipe per Standard Specification for black and hot-dipped, zinc-coated (galvanized) welded and seamless steel pipe for ordinary uses (ASTM A-120). Fittings shall be screwed malleable iron galvanized per ANSI B16.3. Galvanized pipe shall be used only for PRV's and dry pipe in pressure relief and vacuum breaker assemblies.

2-120 Blowoff Assembly

If a fire hydrant is not located at the end of a dead end main, a blowoff assembly shall be required. On water mains which will be extended in the future, provide valve and blocking as shown on standard drawings 2-120-001 and 2-120-002.

2-130 Concrete Bedding and Blocking

Bedding, blocking, encasement, or slope anchor concrete shall be mixed from materials acceptable to the Engineer and shall have a 30-day compressive strength of not less than 2,500 psi. The mix shall contain five (5) sacks of cement per cubic yard and shall be of such consistency that the slump is between 1 inch and 5 inches. All concrete shall be mechanically mixed and contain no chloride.

Concrete thrust blocking, as indicated on the Standard Details, shall be placed at bends, tees, dead ends, crosses, and as designated by the Engineer.

Location of thrust blocking shall be shown on plans. Thrust block concrete shall be poured against undisturbed earth. A plastic barrier shall be placed between all thrust blocks and fittings. See standard detail numbers 2-130-001, 2-130-002, and 2-120-003 for thrust block locations and calculations. All blocking as shown on the Standard Details are considered as minimums, and consideration should be given to unusual circumstances such as unstable soil, adjacent pipe lines, and topography.

2-140 Joint Restraint

Joint restraint methods shall be as per the approved materials list and/or the Standard Drawings. Mega Lugs & Field Lock Gaskets are required on watermains greater than or equal to 15% slope.

2-150 Backflow Prevention

All water system connections to serve buildings or properties with domestic potable water, fire sprinkler systems, or irrigation systems shall comply with the minimum backflow requirements as established by the Department of Health (DOH) and the City of Marysville.

The installation of all backflow devices is required to protect the existing water system and users from possible contamination. To prevent contaminated water from the new main from entering the existing distribution system, a double check valve assembly shall be used on the line supplying the water. A double check valve assembly is sufficient backflow protection only for filling and flushing of the new main. During the hydrostatic pressure test, the temporary connection between the new main and the existing distribution system shall be removed.

For fire and irrigation, the minimum level of backflow prevention required is a double check valve assembly. Fire services shall have a double detector check valve assembly. Air gap and reduced pressure backflow assemblies are required whenever a potential health hazard exists.

All approved Reduced Pressure Backflow Assemblies are listed on the most current copy of the City of Marysville Cross-Connection Control Program. The assembly shall include a tightly closing resilient seated shut-off valve on each end of the body and each assembly shall be fitted with four properly located resilient seated test cocks.

All other appurtenances shall be as shown in the standard detail 2-150-001.

Public Works shall get the certificate of testing of any backflow prevention device before releasing the certificate of occupancy on any building or acceptance of water system. A list of approved testers may be obtained from Washington Environmental Training Resource Center (WETRC) located in Auburn, Washington.

2-151 Reduced Pressure Backflow Assembly with Detector This assembly shall include a line-sized D.O.H. approved (listed on the most current copy of "Accepted Cross-Connection Control Assemblies" published by Washington State Department of Health. Reduced Pressure

Backflow Assembly with a parallel 3/4" meter and 3/4" D.O.H. approved Reduced Pressure Backflow Assembly. Each assembly shall be housed in a hot box or approved equivalent and include a tightly closing resilient seated shut-off valve on each end of the body and each assembly shall be fitted with four properly located resilient seated test cocks.

All other appurtenances shall be as shown in standard detail 2-151-001.

2-152 Double Check Valve Assembly All Double Check Valve Assemblies shall be the one listed on the most current copy of "Accepted Cross-Connection Control Assemblies" published by Washington D.O.H. The assembly shall include a tightly closing resilient seated shut-off valve on each end of the body and each assembly shall be fitted with four properly located resilient seated test cocks.

2-153 Double Check Valve Assembly with Detector

This assembly shall include a line sized D.O.H. approved (listed on the most current copy of "Accepted Cross-Connection Control Assemblies" published by Washington Department of Health Double Check Valve Assembly with a parallel 3/4" meter and 3/4" approved double check valve assembly. Each assembly shall include a tightly closing resilient seated shut-off valve on each end of the body and each assembly shall be fitted with four properly located resilient seated test cocks.

All other appurtenances shall be as shown in the standard detail 2-153-001.

2-154 Backflow Device Resilient Seated Shut-off Valves Each valve shall be marked with model number with designation of resilient seat; such as "RS" or "R", which must be cast, molded, or affixed onto the body or bonnet of the valve. All ferrous bodied valves shall be coated with a minimum of 4 mils. of epoxy or equivalent polymerized coating. 2" and smaller R.P.B.A.s and D.C.V.A.s shall use ball valves, and all 2-1/2" and larger R.P.B.A.s and D.C.V.A.s shall use resilient seated gate valves for domestic supply and resilient seated O.S. and Y. valves for firelines.

The minimum requirements for all resilient seated gate valves shall, in design, material, and workmanship, conform to the standards of AWWA C509.

2-160 Existing Utilities

When utility services occupy the same space as the new water main, the contractor shall do all necessary excavation to fully expose such services. The contractor shall protect said services and work around them during excavating and pipe laying operations. The contractor shall be responsible for all damages to the services due to his operation and shall immediately notify the engineer and arrange for replacement of all damaged services.

In the event of conflict, the contractor shall remove and restore existing catch basin connections, inlet connections, drains, side sewers, inlets, and other sewerage and drainage facilities. All restoration shall be constructed to city standards. Water main pipe shall be installed to clear mainline sewers and storm drains.

It is anticipated that the contractor will encounter private water services during work operations. Records of these utilities often are not maintained by the City and will not be field located by the City Water division. It shall be the contractor's responsibility to ascertain the location of and protect these private utilities from damage.

2-170 Water Main/Sanitary Sewer Crossings The Contractor shall maintain a minimum of 18 inches of vertical separation and 10 feet of horizontal separation between sanitary sewers and water mains. The minimum cover for water main of 42 inches may be reduced to 36 inches upon approval by the City Engineer to provide for as much vertical separation as possible.

The longest standard length of water pipe shall be installed so that the joints will fall equidistant from any sewer crossing. In some cases where minimum separation cannot be maintained, it may be necessary to encase the water pipe and/or sewer service in a carrier pipe or concrete. No concrete shall be installed unless specifically directed by the City Engineer.

2-180 Staking All surveying and staking shall be performed by an engineering or surveying firm capable of performing such work. The engineer or surveyor directing such work shall be licensed as a Professional Engineer or Professional Land Surveyor by the State of Washington.

A preconstruction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction.

The minimum staking of waterlines shall be as directed by the City Engineer or as follows:

A. Stake centerline alignment every 50 feet with cut or fill to invert of pipe maintaining 42 inches of cover over pipe. Cuts are normally not required when road grade has been built to subgrade elevation.

B. Stake alignment of all fire hydrants, tees, water meters, setters and other fixtures and mark cut or fill to hydrant flange finished grade.

2-190 Trench Excavation

A. Prior to any pavement cutting or removal, or excavation for pipe laying, the contractor shall verify, in the presence of the City's inspector, the location and depth of the existing water mains at the points where connections are to be made. The contractor shall verify the dimensions, type, and condition of the existing water main. If necessary, the grade shall be adjusted so neither a high spot nor a low spot is created adjacent to the connection to the existing water mains.

B. Clearing and grubbing where required shall be performed within the easement or public right-of-way as permitted by the City and/or governing agencies. Debris resulting from the clearing and grubbing shall be disposed of by the owner or contractor in accordance with the terms of all applicable permits.

C. Trenches shall be excavated to the line and depth designated by the Plans to provide a minimum of 42 inches of cover over the pipe and the maximum depth shall not be greater than 60 inches of cover over the pipe. Except for unusual circumstances where approved by the City, the trench sides shall be excavated vertically and the trench width shall be excavated only to such widths as are necessary for adequate working space as allowed by the governing agency. The trench shall be kept free from water until joining is complete. Surface water shall be diverted so as not to enter the trench. The owner shall maintain sufficient pumping equipment on the job to ensure that these provisions are carried out.

D. The Contractor shall perform all excavation of every description and whatever substance encountered and boulders, rocks, roots, and other obstructions shall be entirely removed or cut out to the widths of the trench and to a depth 6 inches below water main grade. Where materials are removed from below water main grade, the trench shall be backfilled to grade with pit run sand and gravel and thoroughly compacted.

E. Trenching and shoring operations shall not proceed more than 100 feet in advance of pipe laying without approval of the City Engineer, and shall be in conformance with Washington Industrial Safety and Health Administration (WISHA) and Office of Safety and Health Administration (OSHA) Safety Standard.

F. The bottom of the trench shall be finished to grade with hand tools in such a manner that the pipe will have bearing along the entire length of the barrel. The bell holes shall be excavated with hand tools to sufficient size to make up the joint.

G. Material excavated from trenches and piled adjacent to the trench, or in a roadway or public thoroughfare, shall be piled and maintained so that the toe of the slope of the material is at least 3 feet from the edge of the trench. It shall be piled in such a manner as will cause a minimum of inconvenience to public travel, and provisions shall be made for traffic control as necessary. Free access shall be provided to fire hydrants, water valves, and meters, and clearance shall be left to enable free flow of storm water in gutters, other conduits, and natural watercourses.

H. The minimum and maximum trench widths for water main installation shall be as follows:

	TRENCH WIDTHS (In Inches)		
Nominal Pipe Diameter	Minimum Earth	Minimum Rock	Maximum
2	18	24	36
3	18	24	36
4	18	24	36
6	21	24	36
8	24	24	36
12	28	28	40
16	30	30	42
18	31	31	43
20	33	33	45
24	36	36	48
30	40	40	52

36	47	47	59
42	54	54	66
48	61	61	73
54	68	68	80
60	75	75	87

2-200 Trench Shoring

Where trench excavation equal or exceeds a depth of 4 feet, the developer/contractor shall provide, construct, maintain and remove, as required, safety systems that meet the requirements of the Washington Industrial Safety and Health Act, RCW 49.17, including WAC 296-155. The trench safety systems shall be designed by a qualified person, and meet accepted engineering requirements (see WAC 296-155-660).

The Contractor shall adequately shore trenches to protect the work, existing property, utilities, pavement, etc., and to provide safe working conditions in the trench. The method of shoring shall be according to the contractor's design. The contractor may elect to use a combination of shoring or overbreak, tunneling, boring, sliding trench shields, or other methods of accomplishing the work, provided the method meets all applicable local, state, and federal safety codes. Damages resulting from improper cribbing or from failure to crib shall be the sole responsibility of the contractor.

2-210 Dewatering of Trench

Where water is encountered in the trench, it shall be removed during pipe-laying operations and the trench so maintained until the ends of the pipe are sealed and provisions are made to prevent floating of the pipe. Trench water or other deleterious materials shall not be allowed to enter the pipe at any time.

The developer/contractor shall furnish, install, and operate all necessary equipment to keep the trench above the foundation level free from water during construction, and shall dewater and dispose of the water so as not to cause injury to public or private property or nuisance to the public. Sufficient pumping equipment in good working condition shall be available at all

times for all emergencies, including power outage, and shall have available at all times competent workers for the operation of the pumping equipment.

2-220 Installation

A. The installation of all water mains and appurtenances shall be in accordance with the construction plans as approved by the City Engineer for the project. Any deviation or changes are to be approved by Public Works before the changes are incorporated into the work.

B. Unsuitable Material - Whenever in excavating the trench for water mains and the bottom of the trench exposes peat, soft clay, quicksand, or other unsuitable material, such material shall be removed from the trench and replaced by Foundation Material "Ballast" as specified in the WSDOT Standard Specifications.

C. Handling of Pipe - Pipe shall be handled in a manner that will prevent damage to the pipe, pipe lining, or coating. Pipe and fittings shall be loaded and unloaded using hoists and slings in a manner to avoid shock or damage, and under no circumstances shall they be dropped, skidded, or rolled against other pipe. Damaged pipe will be rejected, and the contractor shall immediately place all damaged pipe apart form the undamaged and shall remove the damaged pipe from the site within 24 hours.

Dirt or other foreign material shall be prevented from entering the pipe or pipe joint during handling or laying operations, and any pipe or fitting that has been installed with dirt or foreign material in it shall be removed, cleaned, and relaid. When pipe laying is not in progress, the open ends of the pipe shall be closed by a watertight plus or by other means approved by the City Engineer.

Pipe shall be stacked in such a manner as to prevent damage to the pipe, to prevent dirt and debris from entering the pipe, and to prevent any movement of the pipe. The bottom tiers of the stack shall be kept off the ground on timbers, or other similar supports.

D. Cutting Pipe - Whenever it becomes necessary to cut a length of pipe, the cut shall be made by abrasive saw or by pipe cutter. All pipe ends shall be square with the longitudinal axis of the pipe and the outside shall be beveled and otherwise smoothed so that good connections can be made without damage to the gasket. Threads shall be cleanly cut. Oxyacetylene torch cutting of ductile iron will not be allowed.

E. Bedding the Pipe - Bedding material, when specified or required by the Engineer shall be as specified in the WSDOT Standard Specifications. For the type of pipe (rigid or flexible) being bedded, bedding is defined as 6 inches below the pipe, around the pipe, and 12 inches above the pipe. Native material will normally be used for bedding for ductile iron pipe unless judged unsuitable by the Engineer.

2-230 Laying Pipe on Curves

Long radius curves, either horizontal or vertical, may be laid with standard pipe by deflecting the joints. If the pipe is shown curved in the drawings and no special fittings are shown, the contractor can assume that the curves can be made by deflecting the joints with standard lengths of pipe. If shorter lengths are required, the drawings will indicate maximum lengths that can be used. The amount of deflection at each pipe joint when pipe is laid on a horizontal or vertical curve shall not exceed the manufacturer's printed recommended deflections.

Where field conditions require deflection or curves not anticipated in the drawings, the Engineer will determine the methods to be used.

When rubber gasketed pipe is laid on a curve, the pipe shall be jointed in a straight alignment and then deflected to the curved alignment. Trenches shall be made wider on curves for this purpose.

Maximum deflections at point joints and laying radius for various pipe lengths are specified in the following table, or if not, shall conform to the manufacturer's and AWWA for the given type of pipe:

Maximum Permissible Deflection in Laying Mechanical-Joint Pipe

Size of Pipe	Max. Permissible Deflections Per Length - In Inches				Approx. Radius of Curve Produced by Succession of Deflections			
Inches	12-ft Length	16-ft. Length	18-ft. Length	20-ft. Length	12-ft. Length	16-ft. Length	18-ft. Length	20-ft. Length
3	16	23	25	27	105	130	155	180
4	16	23	25	27	105	130	155	180
6	14	19	22	24	120	160	175	200
8	11	14	16	18	160	220	240	265
10	11	14	16	18	160	220	240	265
12	11	14	16	18	160	220	240	265
14	7	10	11	12	250	310	350	400
16	7	10	11	12	250	310	350	400
18	6	8	9	10	290	380	430	480
20	6	8	9	10	290	380	430	480
24	5	7	7	8	350	440	555	600
30	5	7	7	8	350	440	555	600
36	4	6	6	7	430	510	650	690

Maximum Permissible Deflection in Laying Push-In Joint Pipe

Size of Pipe	Max. Permissible Deflections Per Length - In Inches				Approx. Radius of Curve Produced by Succession of Deflections			
Inches	12-ft Length	16-ft. Length	18-ft. Length	20-ft. Length	12-ft. Length	16-ft. Length	18-ft. Length	20-ft. Length
3	10	14	15	17	175	220	260	280
4	10	14	15	17	175	220	260	280
6	10	14	15	17	175	220	260	280
8	10	14	15	17	175	220	260	280
10	10	14	15	17	175	220	260	280
12	10	14	15	17	175	220	260	280
14	6	8	9	10	290	380	430	480
16	6	8	9	10	290	380	430	480
18	6	8	9	10	290	380	430	480
20	6	8	9	10	290	380	430	480
24	6	8	9	10	290	380	430	480
30	4	5	6	7	430	615	650	690
36	4	5	6	7	430	615	650	690

2-240 Trench Backfill

Suitable native material excavated during trenching shall be used for trench backfill unless notified by the City Engineer that the native material is unsuitable. The City Engineer or his representative will examine excavated native material at the time of excavation to determine its suitability for use as backfill. Native material will be considered suitable for trench backfill if it is:

a) Capable of attaining the degree of compaction specified within reasonable tolerance of optimum moisture content.

b) Reasonably free of organic material, clay, frozen lumps, rocks, or other deleterious matter.

Unsuitable backfill material shall be removed from the site and hauled to an approved disposal site. The City Engineer shall be provided with the location of all disposal sites to be used and also copies of the permits and approvals for such disposal sites.

Imported material shall meet the requirements of Gravel Borrow or Crushed Surfacing Base Course as specified in the WSDOT Standard Specifications. In backfilling the trench, the Contractor shall take all necessary precautions to protect the pipe from any damage or shifting. The contractor shall backfill from the side of the trench to a maximum uniform depth of 1 foot above the crown of the ductile iron pipe before starting mechanical compaction.

During all phases of the backfilling operations and testing as outlined herein, the contractor shall protect the pipe installation, provide for the maintenance of traffic as may be necessary, and provide for the safety of property and persons.

Where governmental agencies other than the City have jurisdiction over roadways, the backfill and compaction shall be done to the satisfaction of the agency having jurisdiction. If suitable backfill material is not available from trenching operations or temporary traffic control and traffic safety issues exist, the City may order the placing of bedding around the water main and gravel base or controlled density fill for backfilling the trench.

2-241 Recycled Concrete

Use of recycled concrete for trench backfill and crushed surfacing base course (1-1/4" minus) material is encouraged; provided that it is not used as a final surface finish. Recycled concrete shall meet the requirements for crushed surfacing base course material set forth in Section 9-03.9(3) "Crushed Surfacing" of the WSDOT Standard Specifications.

Use of recycled concrete for crushed surfacing top course material (5/8" minus) is not allowed. Manufacturer's recovering concrete from sources other than concrete roadways, sidewalks, and slabs shall provide certification that the material supplied is free of contaminants.

2-242 Controlled Density Fill

Controlled density fill (CDF, aka flowable fill) shall be a mixture of portland cement, flyash (optional), aggregates, and water. It shall be proportioned to provide a grouty, non-segregating, free flowing, self-consolidating and excavatable material that will result in a non-settling fill which has measurable unconfined compressive strength. Unless otherwise specified, unit weights shall range from 125 lbs. per cubic foot to 155 lbs. per cubic foot.

Materials testing shall be with unconfined compressive test cylinders. Test data may be either laboratory trail batch data or field test data.

Specific mix designs may be required at the Engineer's discretion.

The unconfined compressive strength at 28 days shall be a minimum of 50 psi and a maximum of 100 psi. Material shall be a sand/grout slurry proportioned to be hand-excavatable after long-term strength gain.

If CDF is used for trench backfill on ductile iron, steel, or copper utility mains or services, the mains and services shall be encased in polyethylene wrap.

2-250 Compaction of Backfill

Trench backfill shall be spread in layers and be compacted by mechanical tampers of the impact type approved by the Engineer. Water settling will not be permitted. After the initial backfill is placed the remaining backfill material shall be placed in successive layers not exceeding 1 foot in loose thickness, and each layer shall be compacted to the density specified below:

a) Improved areas such as street and sidewalk areas shall be compacted to 95% of maximum dry density modified proctor.

b) Unimproved areas of landscape areas shall be compacted to 90% of maximum dry density modified proctor.

2-260 Temporary Street Patching

Temporary restoration of trenches shall be accomplished by using 2" Class B Asphalt Concrete Pavement when available, 2" Asphalt Treated Base (ATB), or steel plates.

ATB used for temporary restoration may be dumped directly into the trench, bladed and rolled. After rolling, the trench must be filled flush with the existing asphalt concrete pavement to provide a smooth riding surface.

All temporary patches shall be maintained by the Contractor until such time as the permanent pavement patch is in place. If the Contractor is unable to maintain a patch for whatever reason, the City will patch it at actual cost plus overhead and materials.

2-270 Trench Pavement Restoration

Trench restoration shall be either by a patch or patch plus overlay as required by the City.

A. All trench and pavement cuts shall be made by spade sawcuts. All cuts shall be a minimum distance outside the trench width as prescribed by the City Engineer.

B. Replacement of the asphalt concrete or portland concrete cement shall be of existing depth plus 1 inch or 3 inches, whichever is greater.

C. Tack shall be applied to the existing pavement and edge of cut and shall be emulsified asphalt grade CSS-1 as specified in the WSDOT Standard Specifications. Tack coat shall be applied as specified in the WSDOT Standard Specifications.

D. Asphalt concrete Class B shall be placed on the prepared surface by an approved paving machine and shall be in accordance with the applicable requirements of the WSDOT Standard Specifications, except that longitudinal joints between successive layers of asphalt concrete shall be displaced laterally a minimum of 12 inches unless otherwise approved by the City Engineer. Fine and coarse aggregate shall be in accordance with the WSDOT Standard Specifications. Asphalt concrete over 2 inches thick shall be placed in equal lifts not to exceed 2 inches each.

All street surfaces, walks or driveways within the street trenching areas affected by the trenching shall be feathered and leveled to an extent that provides a smooth-riding connection and expedites drainage flow for the newly paved surface. Leveling and feathering as required by the City Engineer shall be accomplished by raking out the oversized aggregates from the Class B mix as appropriate.

Surface smoothness shall be per the WSDOT Standard Specifications.

E. All joints shall be sealed using paving asphalt AR4000W.

F. When trenching within the roadway shoulder(s), the shoulder shall be restored to its original or better condition.

G. The final patch shall be completed as soon as possible and shall be completed within 30 days after first opening the trench. This time frame may be adjusted if delays are due to inclement paving weather, or other adverse conditions that may exist. However, delaying of final patch of overlay work is allowable only subject to the City Engineer's approval.

2-280 Hydrostatic Pressure Tests

The City Engineer or his representative will inspect and observe the hydrostatic test of the pipe within 24 hours after notification by the Contractor that a section is ready for inspection and test. The Contractor shall contact the Engineer at least 24 hours in advance of the completion of sterilization and flushing and his representative shall be present when water samples are taken.

Prior to the acceptance of the work, the installation shall be subjected to a hydrostatic pressure test and any leaks or imperfections developing under said pressure shall be remedied by the Contractor before final acceptance of the work. No air will be allowed in the lines. The mains shall be tested between valves. Insofar as possible, no hydrostatic pressure shall be placed against the opposite side of the valve being tested. Test pressure shall be maintained while the entire installation being tested is inspected. The Contractor shall provide all necessary equipment and shall perform all work connected with the test. Tests shall be made after all valved connections have been made. At unvalved connection points, a temporary plug (or 2" blow-off assembly on lines without hydrants) shall be installed at the end of the new main. This shall include concrete blocking necessary to withstand pressures encountered during the hydrostatic test.

Once the new line is successfully tested and disinfected, the plug (blow-off) shall be removed and the connection to the existing main completed. The Contractor shall perform a preliminary test to assure that the equipment to be used for the test is adequate and in good operating condition and the air in the lines has been released before requesting the City Engineer witness the test. The City Engineer or his representative shall witness the test; if the test does not pass inspection for any reason, additional trips required to witness the test shall be done at the Contractor's expense.

The Contractor shall provide special plugs and blocking necessary in those locations where it would be necessary to test against butterfly valves to ensure that the pressure rating of these valves is not exceeded during testing.

All water mains and appurtenances shall be hydrostatically tested as specified in Section 7-09.3(23) of the WSDOT/ Standard Specifications.

2-290 Sterilization and Flushing of Water Mains

Sterilization of water mains shall be accomplished by the Contractor in accordance with the requirements of the State Health Department and in a manner satisfactory to the City Engineer. The section to be sterilized shall be thoroughly flushed at maximum flow established by the City Engineer prior to chlorination. Flushing period must be approved by the City. Sections will ordinarily be sterilized between adjacent valves unless, in the opinion of the City Engineer, a longer section may be satisfactorily handled. Chlorine shall be applied by solution feed at one end of the section with a valve or hydrant at the opposite end open sufficiently to permit a flow through during chlorine application. The chlorine solution shall be fed into the pipeline already mixed by an automatically proportioning applicator so as to provide a steady application rate of not less than 50 ppm chlorine. Hydrants along the chlorinated section shall be open during application until the presence of chlorine has definitely been detected in each hydrant run. When a chlorine concentration of not less than 50 ppm has been established throughout the line, the valves shall be closed and the line left undisturbed for 24 hours.

As an alternative, the Contractor may use granulated chlorine. Granulated chlorine (dry calcium hypochlorite at 65% - 70% chlorine) shall be placed in the pipe to yield a dosage of not less than 50 ppm. The number of ounces of 65% test calcium hypochlorite required for a 20-foot length of pipe equals .00843ld, in which "d" is the diameter in inches. The line shall then be thoroughly flushed and water samples taken for approval by the local health agency. Flushing period must be approved by the City. The Contractor shall exercise special care in flushing to avoid damage to surrounding property to conform to Water Quality Considerations.

Should the initial treatment result in an unsatisfactory bacteriological test, additional chlorine using the first procedure shall be repeated by the Contractor until satisfactory results are obtained. The Contractor shall be responsible for disposal of treated water flushed from mains and at no time shall chlorinated water from a new main be flushed into a body of fresh water. This is to include lakes, rivers, streams, storm drainage systems and any and all other waters where fish or other natural water life can be expected. Disposal may be made to any available sanitary sewer provided the rate of disposal will not overload the sewer.

Main extensions shall not be connected to the City water system until pressure and bacteriological tests have passed all required standards.

2-291 Chlorine Dosage

References in Section 7-09.3(24) of the WSDOT Standard Specifications to an initial chlorine content of the water of not less than 50 mg/l is as follows.

The amounts of chlorine (Cl_2) required to give 50 mg/l for 100-foot lengths of various diameter of pipe are:

AMOUNTS OF CHLORINE REQUIRED FOR 50 MG/L DOSAGE

Pipe Size (Inches)	Volume of Water Per 100 ft. Length (gallons)	Household Bleach 5-1/4% (gallons)	Commercial Bleach 12-1/2% (gallons)
4	65.3	0.06	0.03
6	146.5	0.14	0.06
8	261.0	0.26	0.11
10	408.0	0.40	0.16
12	588.7	0.60	0.24
14	799.6	0.80	0.32
16	1044.4	1.0	0.42
20	1631.9	1.6	0.66
24	2349.9	2.2	0.94
30	3671.7	3.6	1.50
36	5287.3	5.0	2.20
42	7196.6	7.0	2.90
48	9399.6	9.2	3.20

GENERAL NOTES FOR CONSTRUCTION PLANS (WATER MAIN INSTALLATION)

1. All workmanship and material shall be in accordance with City of Marysville standards and the most current copy of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction.

2. A preconstruction meeting shall be held with the City prior to the start of construction.

3. It shall be the responsibility of the Contractor to locate or have located by the appropriate companies all utilities prior to beginning construction.

   Call Underground Locate at 1-800-553-4344 a minimum of 48 hours prior to any excavations.

4. Water pipe shall be ductile iron pipe standard thickness Class 52 cement-lined unless otherwise specified and shall conform to ANSI/AWWA C151/A21.51.

5. Gate valves shall be resilient wedge, NRS (Non Rising Stem) with O-rings seals. Valve ends shall be mechanical joint or ANSI flanges. Valves shall conform to AWWA 509-80. Valves shall be Mueller, M & H, Clow R/W or Waterous Series 500.

6. Fittings shall be ductile iron short body compact conforming to AWWA C110, C11 and C153 and shall be cement-mortar lined conforming to AWWA C104. The City will be given 72 hours notice prior to scheduling a shutdown. Where connections require “field verification”, connection points will be exposed by Contractor and fittings verified 48 hours prior to distributing shut-down notices.;

7. Fire hydrants shall conform to AWWA C501 and shall be of standard manufacture and of a pattern approved by Marysville, with Stortz 5” quarter turn fitting. Hydrants shall be M & H Reliant Style 929 or Mueller A-423 (MJ). Hydrants shall be bagged until system is approved.

8. All lines shall be disinfected and flushed in conformance with WSDOT standards and specifications. All pipe shall be tested at 250 psi. The Contractor shall furnish all

temporary plugs, testing devices, etc. The City shall be present for all testing. The City will take purity tests, and connection will be authorized following passing of the tests. The Contractor shall not operate any valve or part of the City water system without notification and specific supervision of the City utility superintendent. The Contractor shall make all connections to the system required after making arrangements with the City in advance. Work and procedures shall conform to APWA Sec. 7-09.3(23)

9. Installation of pipe, fittings and valves, hydrants, and appurtenances shall conform to WSDOT standard specifications. Cover shall be 42 inches over the top of pipe unless otherwise noted on plans. In the event grade revision following water main construction results in cover over the water main of less than 3 feet or in excess of 5 feet, the water main shall be reconstructed by the Owner to conform to the specifications of the City of Marysville unless depth has been pre-approved by the City. All added costs of inspecting such water main reconstruction shall be charged to the developer.

10. Prior to construction of any water mains, the lot corners shall be staked and water main locations established by survey, cost of which is to be borne by the developer.

11. To maintain the required alignment, use short lengths and deflect the joints or use necessary bends.

12. Bedding material meeting the requirements for rigid pipe shall be placed to a depth of 6" under and around the pipe and to a depth of at least 12 inches over the top of the pipe. The bedding materials hall be rammed and tamped around the pipe by the use of shovels or other approved hand-held tools so as to provide firm and uniform support over the full length of all pipe, valves, and fittings. Care shall be taken to prevent any damage to the pipe or its protective coating.

13. Separation of water and sewer mains shall conform to W.D.O.E. standards or special construction requirements.

14. Services, blow-offs, and miscellaneous details shall be shown on the drawings or standard plans.

WATER SYSTEM APPROVED MATERIALS LIST

The following manufacturers have been approved for use for water and sewer. Where specific manufacturers are listed no other manufacturer may be used without prior approval by the Utility.

DUCTILE IRON PIPE

All manufacturers that meet the performance requirements specified under the material section of the standards.

DUCTILE IRON FITTINGS

All manufacturers that meet the performance requirements specified under the material section of the standards.

GALVANIZED IRON PIPE

All manufacturers that meet the performance requirements specified under the material section of the standards.

JOINT RESTRAINT SYSTEMS

EBAA Iron (MEGALUG Series 1100)
Griffin Pipe Products Company (Snap-Lok, Bolt-Lok)
Romac (Grip Ring)
Star National Products (Shackle Products)
US Pipe (TR FLEX)

COUPLINGS

Romac, Dresser

STAINLESS STEEL REPAIR BANDS

Romac, Ford

CASING INSULATORS

Pipeline Seal and Insulator Co.
- 8" band Model C8G
- 12" band Model C12G

Cascade Waterworks Mfg. Co.

- Stainless Steel Casing Spacers (catalog number depends on size)

CASING END SEALS

Pipeline Seal and Insulator Co.,

Standard Pull-on (Model S)
Custom Pull-on (Model G)

GATE VALVES

All manufacturers that meet the performance requirements specified under the material section of the standards.

PRV STATION

- PRESSURE REDUCING VALVES

CLA-VAL 90G-01BCSY } Approved Size for Main Valve

CLA-VAL 90G-01ACS } 2" Bypass Valve

- STRAINERS

MEUSSCO 751 } 6"

MEUSSCO 11-BC } 2"
(With brass or stainless steel perforated screen, 1/16" diameter, 144 holes per square inch)

- PRESSURE RELIEF VALVES

CLA-VAL 50G-01KC } 2"

INDIVIDUAL PRESSURE REDUCING VALVES (Residential)

Wilkins 600 with built-in bypass.

INDIVIDUAL PRESSURE REDUCING VALVES (Commercial)

- PRESSURE REDUCING VALVES

Mueller H-9300, No. 2 setting

- PRESSURE RELIEF VALVES

CLA-VAL 55F

SERVICE SADDLES

1" tap:	Romac 101S
	Ford FS101 (4" through 8" mains)
1-1/2" &	Romac 202S
2" tap	Ford FS202

CORPORATION STOPS

1" size: Ford F1000G, FB 1000G
Mueller No. H-15008
AY McDonald 4701Q Plug Style, 4701BQ Ball Style

1-1/2" size: Ford Ballcorp FB1100G MIPX COMP
Mueller H 15023 IPTX110
AY McDonald 4701BQ Ball Style

2" size: Ford Ballcorp FB 1100G
Mueller H 15023 IPTX110
AY McDonald 4701BQ Ball Style

ANGLE METER VALVES

1-1/2" Irrigation: Ford FV 43666WG
Mueller 1-1/2" B 24276 Angle Ball Valve Flgx110

2" Irrigation: Ford FV 43777WG
Mueller 2" B 24276 Angle Ball Valve Flgx110

VALVE BOXES

Rich Manufacturing Co. #940

BUTTERFLY VALVES

All manufacturers that meet the performance requirements specified under the material section of the standards.

CHECK VALVES

Rennselaer List 340

AIR AND VACUUM RELEASE VALVES

APCO No. 143-C, Val-Matic No. 201C, Crispin U10

FIRE HYDRANTS

Mueller Centurion
M&H 129T or 929

METER SETTERS

5/8" X 3/4": (horizontal):

Ford VBH-92-12W15
Mueller 5/8" x 3/4" (B-24104-2) 5/8 x 3/4 Setter Vertical inlet x 15" horizontal outlet
AY McDonald 62P212WCDD33 (5/8 x ¾ meter) with 15" horizontal outlet
AY McDonald 62F312WCDD 33 for (full ¾")

RN 2-5

AY McDonald Adaptor from 1" to ¾" 4753Q MIPXCTS ADP7

1" x 1" (horizontal):

Ford VBH 94 15W15
Mueller 1" (B-24104-2) 1" Setter Vertical Inlet x 15" horizontal outlet

1" x 1" (vertical):

Ford VFH-8612B-11-66

1-1/2" Domestic:

Muller H-1423-2 Custom Setter with Bypass and Check
AY McDonald 39 B612WWFF665

2" domestic:

Ford VFH 87 12B-11-77
AY McDonald 39 B612WWFF775

METER BOXES (as listed or approved equal)

5/8" X 3/4" Service: Carson BCF1118-18XL sku#11182014
PC cover with PC reader lid: Carson PC1118R sku#11184050 (non-traffic applications). 20K solid PC: Carson PC1118 sku#11184074 (traffic applications)

3/4" X 3/4" Service: Carson BCF1118-18XL sku#11182014
PC cover with PC reader lid: Carson PC1118R sku#11184050 (non-traffic applications). 20K solid PC: Carson PC1118 sku#11184074 (traffic applications)

1" x 1" Service: Carson BCF1118-18XL sku#11182014
PC cover with PC reader lid: Carson PC1118R sku#11184050 (non-traffic applications). 20K solid PC: Carson PC1118 sku#11184074 (traffic applications)

Dual Meters: Carson BCF1527-18XL sku#15272002
PC cover with large PC reader lid: Carson PC1527R sku#15274018
Lid shall be traffic rated if required.

1-1/2" and 2": Carson BCF1730-18XL sku# 17302044
PC cover with PC reader lid: Carson PC1730R sku#17304296 (non-traffic applications). 20K solid PC: Carson PC1730 sku#17304239 (traffic applications)

REDUCED PRESSURE BACKFLOW ASSEMBLIES

As approved on the most current Department of Social and Health Services list for cross connection assemblies.

DOUBLE CHECK VALVE ASSEMBLIES

As approved on the most current Department of Social and Health Services list for cross connection assemblies.

RESILIENT SEATED SHUT-OFF VALVES

All manufacturers that meet the performance requirements specified under the material section of the standards.

PVC PIPE (ASTM D3034) 4" - 15"

All manufacturers that meet the performance requirements specified under the material section of the standards.

PVC PIPE (ASTM F679) 18" - 27"

All manufacturers that meet the performance requirements specified under the material section of the standards.

PVC PIPE (AWWA C900) 4" - 12"

All manufacturers that meet the performance requirements specified under the material section of the standards.

AWWA C900 FITTINGS AND MANHOLE ADAPTERS

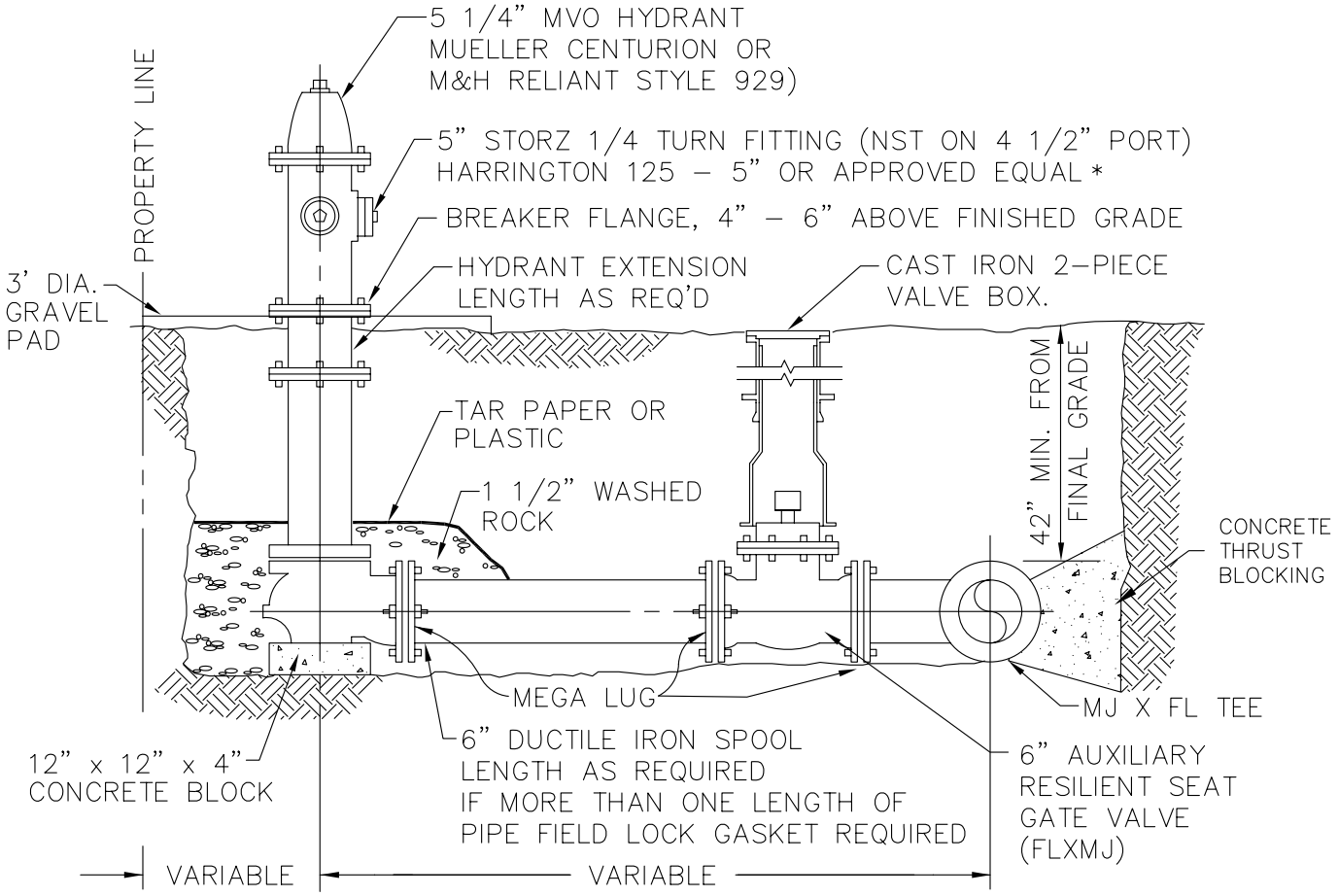
Head Manufacturing (Idaho)
Vassallo (Florida)

CONTROLLED DENSITY (FLOWABLE) FILL

Stoneway, CADMAN

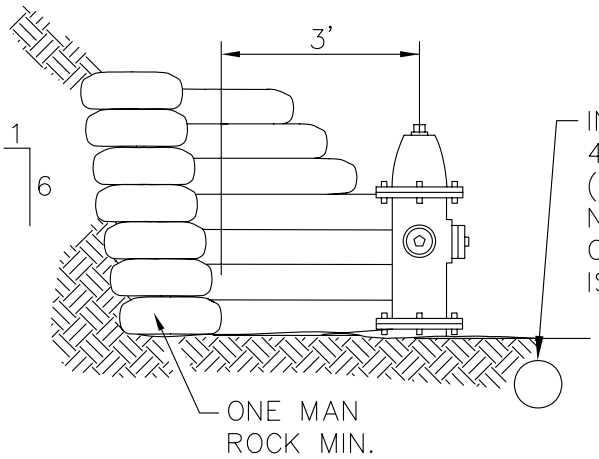
RECYCLED CONCRETE (FOR USE AS CRUSHED SURFACING BASE COURSE MATERIAL)

Stoneway Recycling
Renton Recycling (with certification that the material is free of contaminants)

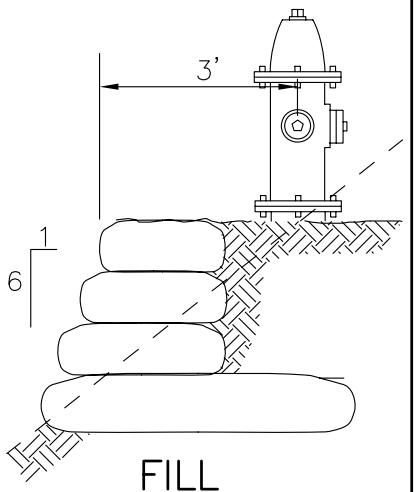


NOTE: PAINT HYDRANT WITH CATERPILLAR YELLOW. BAG HYDRANT UNTIL SYSTEM IS APPROVED. REMOVE ALL CHAINS & CONNECTORS FROM ALL PORTS. NO LOCKING DEVICES ON STORZ FITTINGS.

3' MINIMUM CLEARANCE
AROUND FIRE HYDRANT



CUT



FILL

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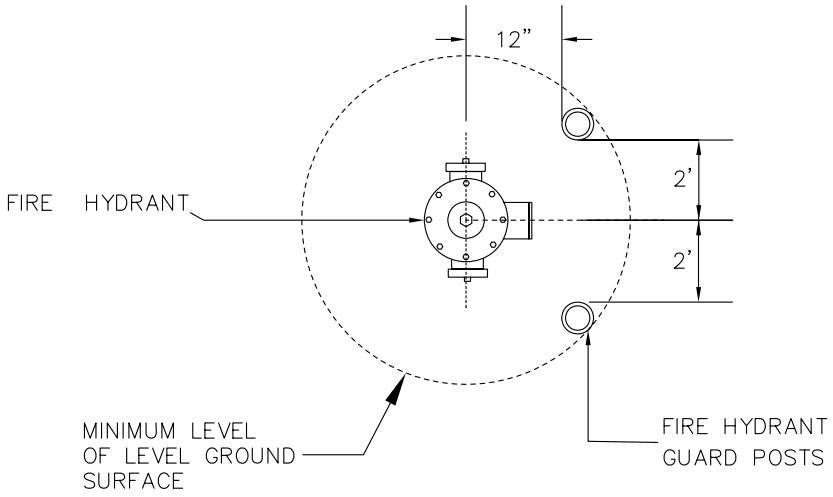
MARYSVILLE CITY ENGINEER DATE

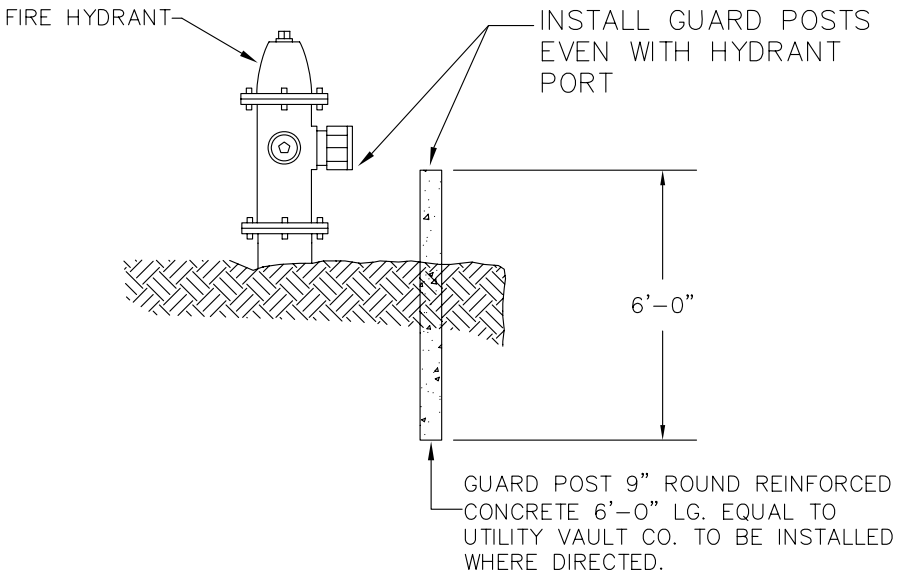
CITY OF Marysville WASHINGTON

HYDRANT INSTALLATION

LAST REVISED 8/10/01

STANDARD PLAN 2–060–001





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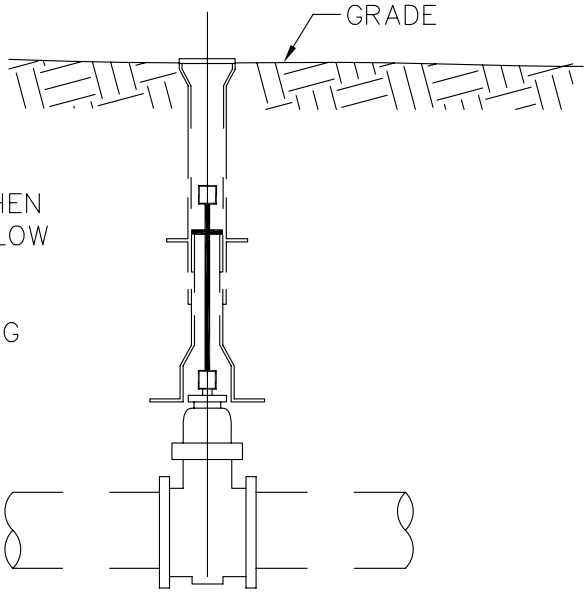
CITY OF Marysville WASHINGTON

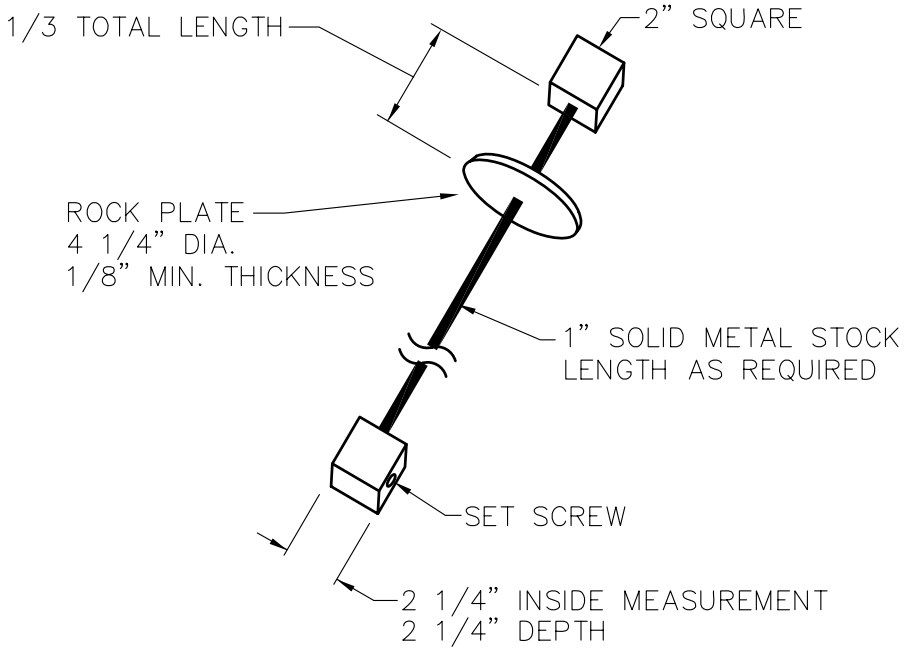
FIRE HYDRANT GUARD POST

LAST REVISED 07/18/06

STANDARD PLAN 2-060-002

EXTENSIONS W/ ROCK PLATE ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN 48" INCHES BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A MINIMUM OF ONE (1) FOOT LONG. ONLY ONE EXTENSION TO BE USED PER VALVE. OPERATING NUT TO BE WITHIN 48" OF FINISHED GRADE.





NOTES

1. ALL EXTENSIONS ARE TO BE MADE OF STEEL SIZED AS NOTED.
2. PAINT ENTIRE EXTENSION ASSEMBLY WITH TWO COATS OF CARBON ELASTIC (ATCO #222) OR APPROVED EQUAL.
3. EXTENSION TO BE INSTALLED PRIOR TO SETTING VALVE BOX.

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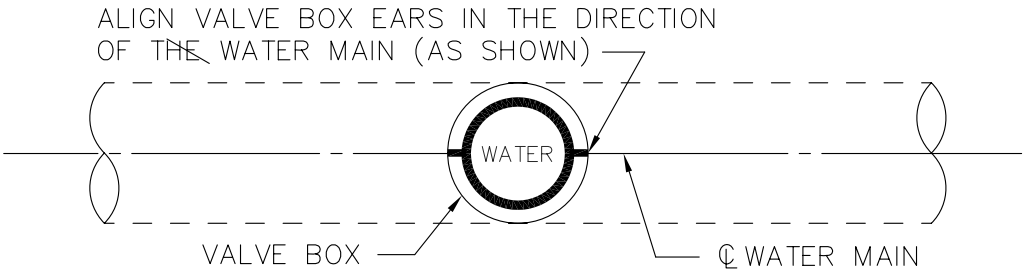
CITY OF Marysville WASHINGTON

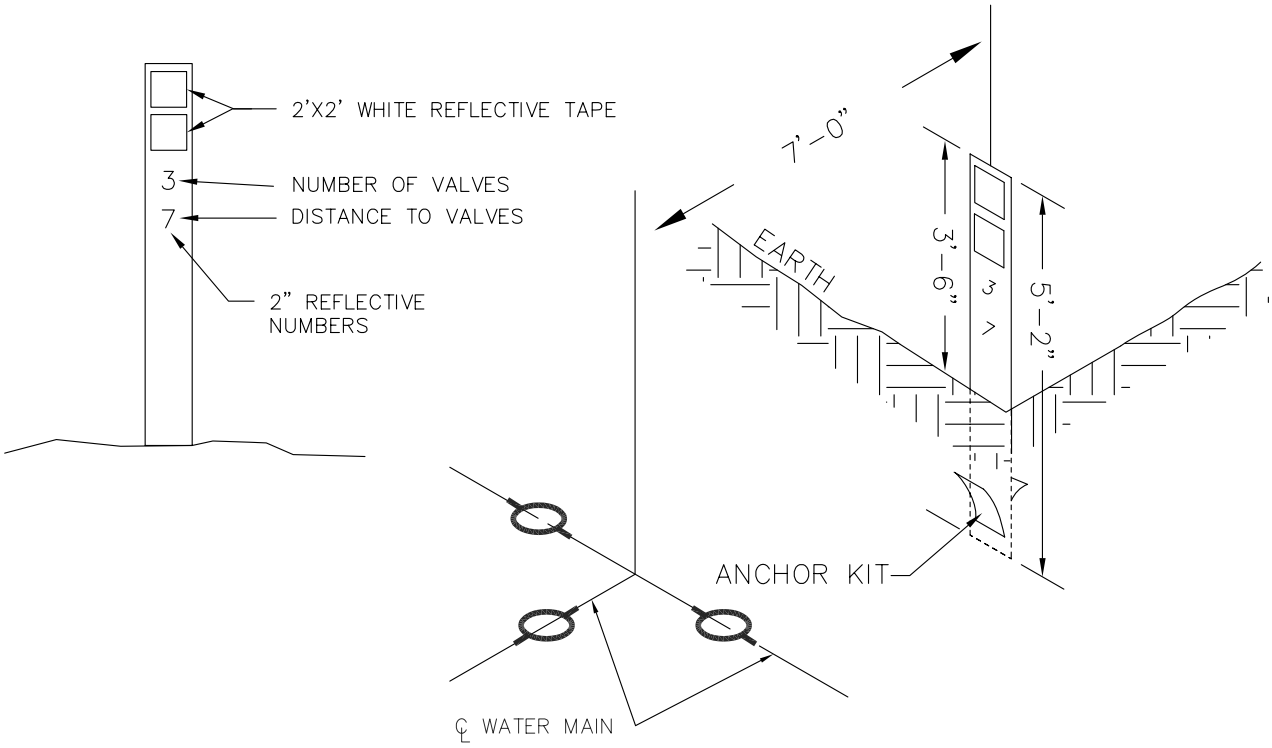
VALVE OPERATING NUT EXTENSION DETAIL

LAST REVISED 07/13/06

STANDARD PLAN 2-070-001



VALVE BOX EAR DETAIL



NOTE: VALVE MARKER SHALL BE CARSONITE CUM-375 BLUE WITH 2-ANCHORS (ANCHOR BARB KIT) AT BOTTOM OF MARKER. MARKER SHALL BE SITUATED IN A SAFE AND LOGICAL LOCATION. THE POST SHALL BE SET AT RIGHT ANGLES TO THE ROADWAY FROM THE VALVE. USE APPROPRIATE INSTALLATION TOOLS AND METHODS.

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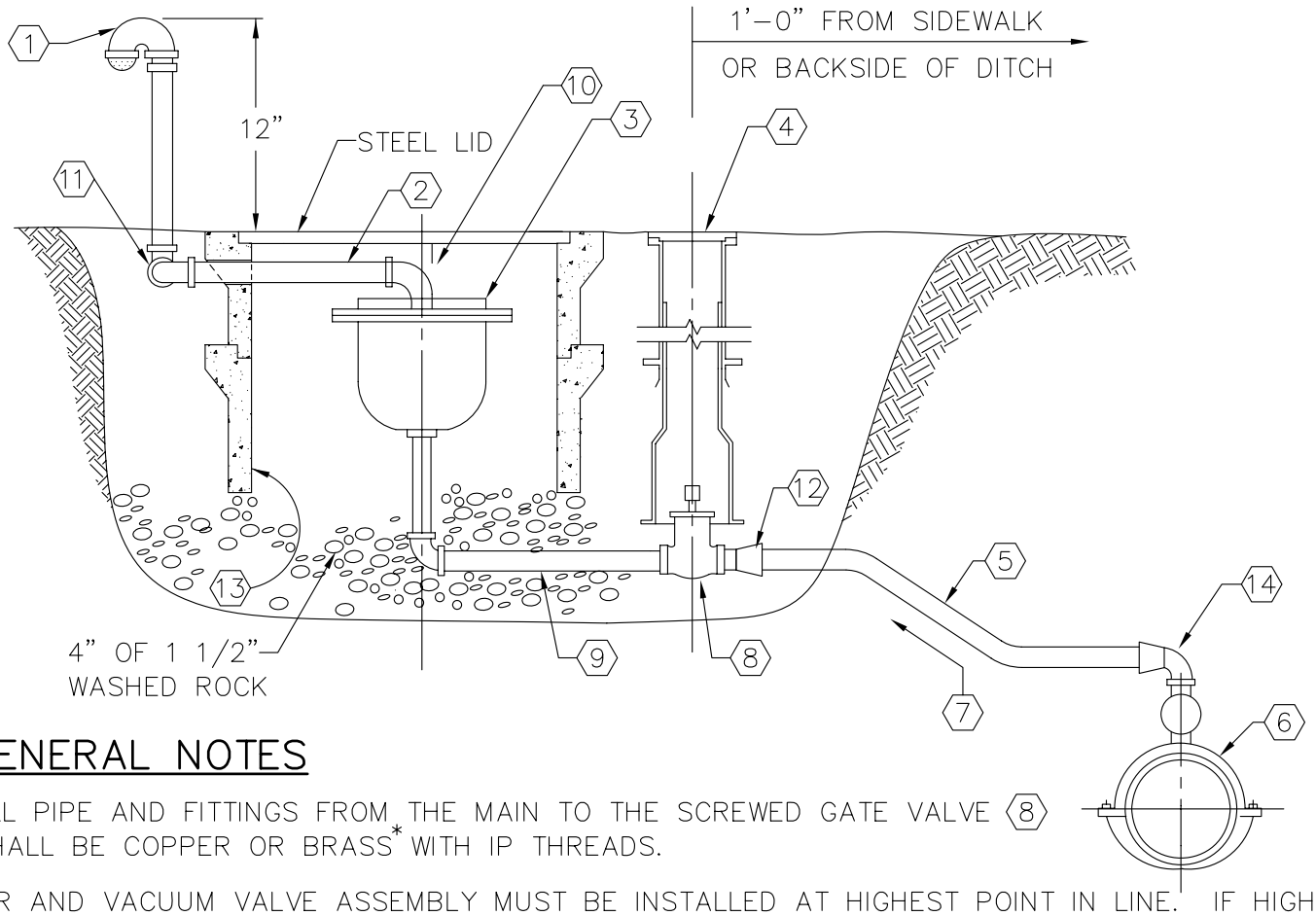
VALVE MARKER POST DETAIL

LAST REVISED 07/20/06

STANDARD PLAN 2-070-002



GENERAL NOTES

ALL PIPE AND FITTINGS FROM THE MAIN TO THE SCREWED GATE VALVE (8) SHALL BE COPPER OR BRASS* WITH IP THREADS.

AIR AND VACUUM VALVE ASSEMBLY MUST BE INSTALLED AT HIGHEST POINT IN LINE. IF HIGH POINT FALLS IN LOCATION WHERE ASSEMBLY CANNOT BE INSTALLED, PROVIDE ADDITIONAL DEPTH OF LINE TO CREATE HIGH POINT AT A LOCATION WHERE ASSEMBLY CAN BE INSTALLED.

INSTALL VALVE BOX PERPENDICULAR TO PAVING. INSULATE W/ FIBERGLASS INSULATION TO TOP OF AIR/VACUUM VALVE.

KEYED NOTES

(1) 2" BRONZE BEEHIVE STRAINER, 2" RETURN BEND, PAINTED SAFETY YELLOW
(2) EXTEND 2" PIPE HORIZONTALLY THROUGH BACK OF BOX
(3) 2" AIR RELEASE OR COMBINATION AIR/VACUUM VALVE, APCO 145C OR EQUAL.
(4) CAST IRON 2 PIECE VALVE BOX W/ LID & LIFTING HANDLE, SEATTLE STYLE 045
(5) 2" TYPE K SOFT COPPER TUBING
(6) 2" DOUBLE STRAP SADDLE WITH IP BALL CORP STOP
(7) MAINTAIN POSITIVE SLOPE FROM MAIN TO AIR RELEASE VALVE
(8) 2" MUELLER 110 OR FORD QUICK JOINT BALL VALVE CURB STOP
(9) 2" GALV. PIPE WITH 90° ELBOW AND SHORT NIPPLE
(10) 2" 90° BEND & STREET ELL
(11) 2" 90° BEND, 2" CLOSE NIPPLE & 2" 90° BEND
(12) 2" MIPTx110 COMPRESSION COUPLING
(13) 2-#2 FOGTITE CONCRETE BOXES W/ ONE STEEL TRAFFIC BEARING LID
(14) 90° 2" ELL, BRASS - FIPTx110 COMPRESSION COUPLING

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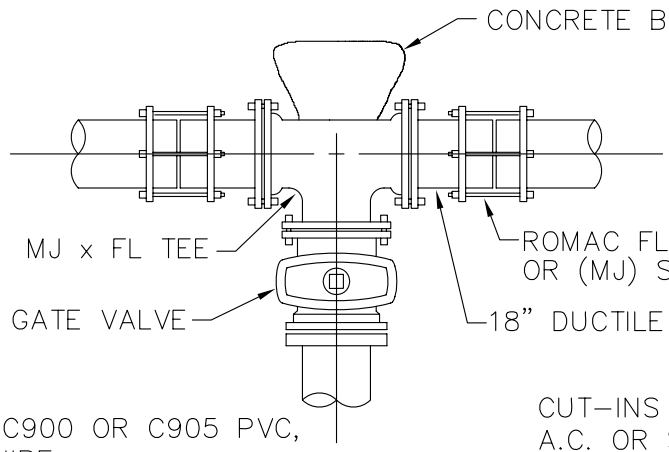
CITY OF Marysville WASHINGTON

2" AIR RELEASE OR COMBINATION AIR/ VACUUM VALVE

LAST REVISED 07/13/06

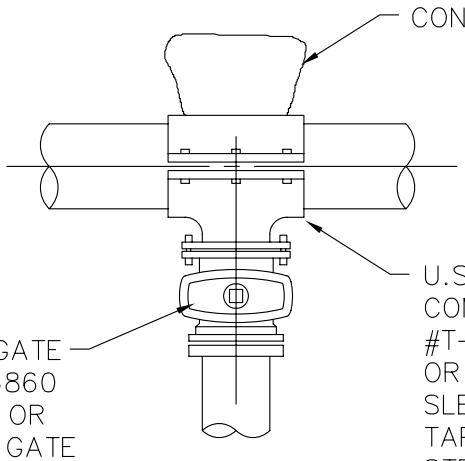
STANDARD PLAN 2-070-003



CUT–INS TO EXISTING C900 OR C905 PVC, C.I., OR D.I. PIPE REQUIRE
1–18" D.I. NIPPLE
1–(MJ) SLEEVE (LONG)

CUT–INS TO EXISTING A.C. OR STL PIPE REQUIRE
2–18" D.I. NIPPLES
2–ROMAC FLEX COUPLINGS

CUT–IN TO MAINS 8" AND SMALLER



WET TAP MAINS 10" AND LARGER

NOTE:

ALL CONNECTIONS TO EXISTING MAINS WILL BE MADE WITH CITY OF MARYSVILLE PERSONNEL PRESENT.

ALL FITTINGS TO BE SWABBED W/CL2 SOLUTION (50 PPM)

STEEL PIPES SHALL BE RECOATED WHERE WRAPPING HAS BEEN DISTURBED.

SIZE ON SIZE REQUIRES CAST IRON MJ SLEEVE

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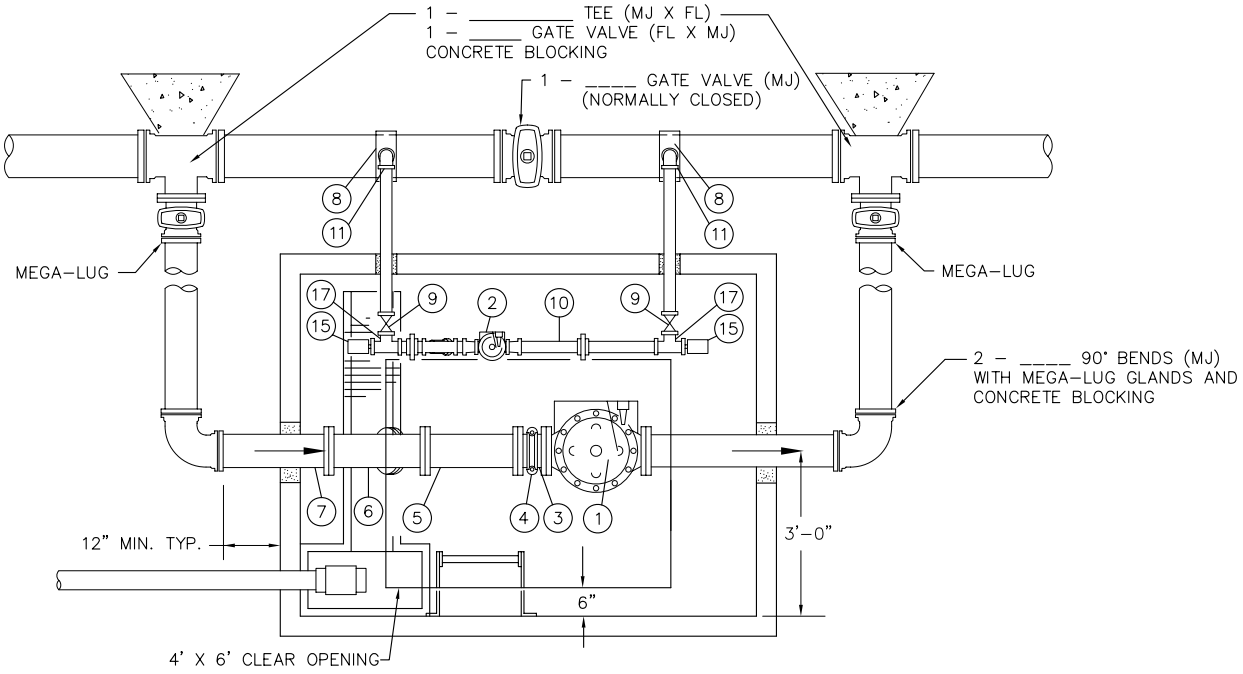
CITY OF Marysville WASHINGTON

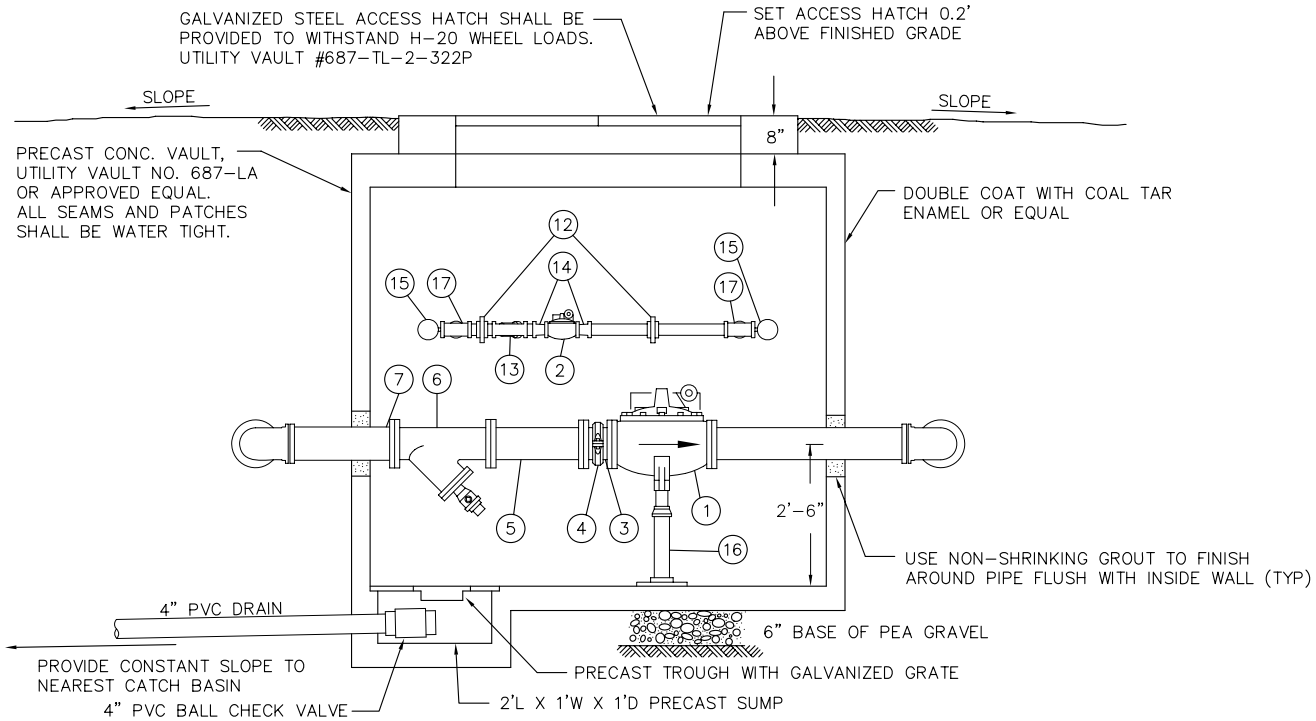
CUT–INS AND LIVE TAPS

LAST REVISED 10/16/01

STANDARD PLAN 2–070–004



PLAN
NTS



ELEVATION
NTS

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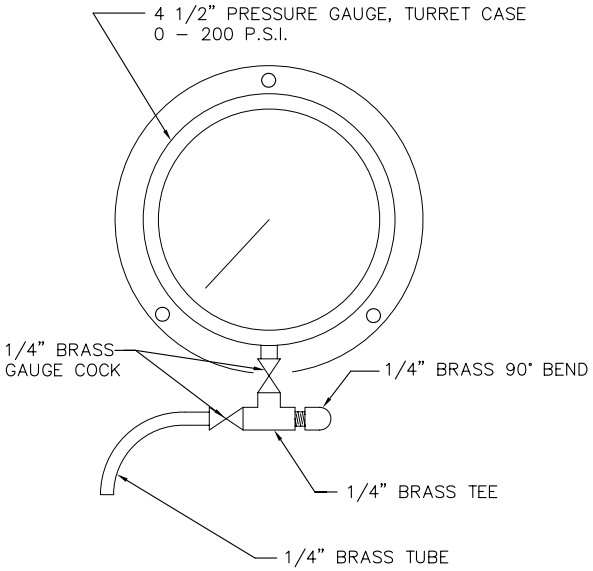
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

PRESSURE REDUCING STATION

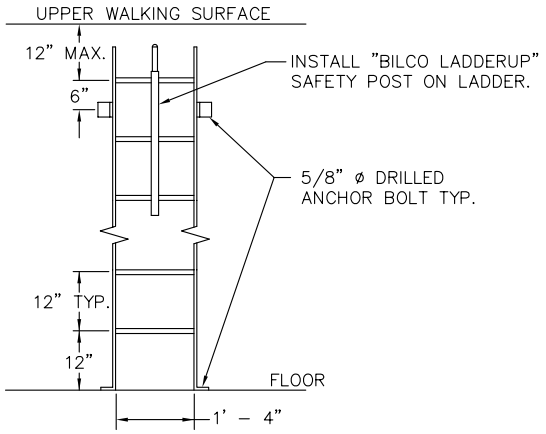
LAST REVISED 07/13/06

STANDARD PLAN 2–080–001



DRILL AND TAP A 1/4" HOLE IN ___ D.I. PIPE FOR INSTALLATION.

GAUGE ASSEMBLY
N.T.S.



LADDER AND MOUNTING BOLTS SHALL BE CONSTRUCTED OF HOT DIPPED GALVANIZED STEEL.

LADDER DETAIL
N.T.S.

MATERIALS LIST

1. ____ PRESSURE REDUCING VALVE (CLAYTON 90G–01 ABCSY)
2. ____ PRESSURE REDUCING VALVE (CLAYTON 90G–01 ABCS)
3. 8" OF __" D.I. (FL X GROOVE)
4. VICTUALIC COUPLING OR EQUAL
5. 16" OF ____ D.I. (FL)
6. ____ WYE STRAINER (FL), 1/8" DIAM. SCREEN, WITH 2" CORP STOP ON DRAIN
7. ____ D.I PIPE (FL X PE)
8. ____ I.P. SERVICE SADDLE WITH DOUBLE STAINLESS STEEL STRAPS
9. ____ BRASS GATE VALVE
10. ____ PIPE
11. ____ 90° BEND
12. ____ UNION
13. ____ WYE STRAINER WITH 20 MESH SCREEN
14. _____ REDUCER
15. ___ 1/4" GAUGE COCK AND PRESSURE GAUGE
16. ADJUSTABLE PIPE SUPPORT
17. ___ TEE

ALL PIPE AND FITTINGS 3" DIA. AND SMALLER SHALL BE GALVANIZED UNLESS NOTED OTHERWISE.

PRV DESCRIPTIONS

1. PRESSURE REDUCING VALVE
A) ____ GLOBE
B) FLANGED
C) CLASS 125
D) APPROXAMATE DOWNSTREAM PRESSURE SETTING – __ P.S.I.
E) WYE STRAINER ON PILOT LINE
F) FLOW CLOSING SPEED CONTROL
G) VALVE POSITION INDICATOR
H) STAINLESS STEEL TRIM ON MAIN AND PILOT VALVE

2. PRESSURE REDUCING VALVE
A) _____ GLOBE
B) THREADED
C) CLASS 125
D) APPROXIMATE DOWNSTREAM PRESSURE SETTING – __ P.S.I.
E) WYE STRAINER ON PILOT LINE
F) FLOW OPENING SPEED CONTROL
G) VALVE POSITION INDICATOR
H) STAINLESS STEEL TRIM ON MAIN AND PILOT VALVE

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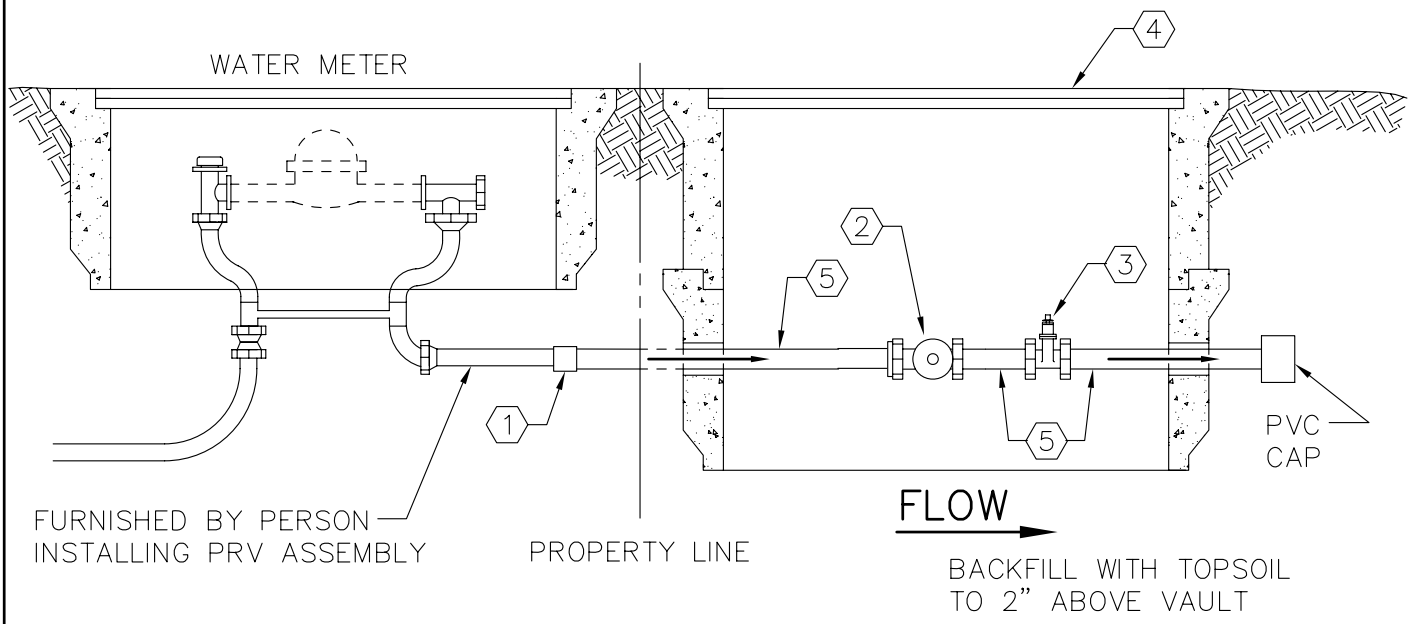
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

PRESSURE REDUCING STATION NOTES

LAST REVISED 10/16/01

STANDARD PLAN 2–080–002



KEYED NOTES FOR PRV

1. 3/4" COMBINATION TAIL PIECE END CONNECTION
2. PRESSURE REDUCING VALVE W/ STRAINER – 3/4" WITH UNION COUPLING ON THE INLET; EQUAL TO: WILKINS #600, WATTS #U5B, OR SEARS #42A1789. INSTALL SIDEWAYS TO ALLOW ACCESS TO STRAINER AND ADJUSTING SCREW.
3. 3/4" BRASS GATE VALVE
4. CARSON BCF1118–18XL SKU #11182014 (OR APPROVED EQUAL)
5. 3/4" BRASS PIPE

INSTALLATION

THE PRESSURE REDUCING VALVE SHALL BE LOCATED "DOWNSTREAM" OF THE METER. RESPONSIBILITY FOR PROPER INSTALLATION, AND OPERATION OF THE VALVE SHALL BE THAT OF THE CONTRACTOR.

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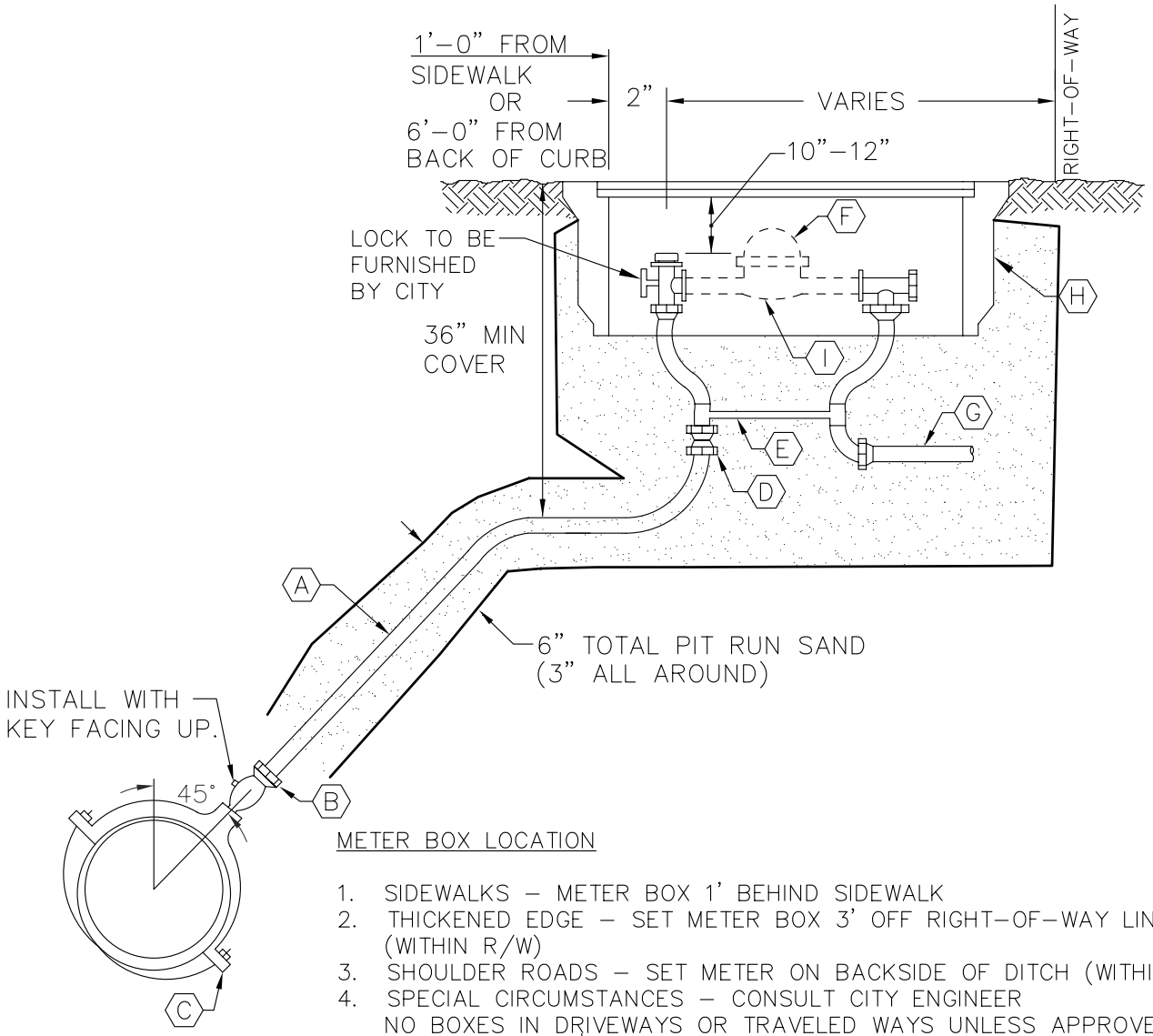
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

5/8"x3/4" SINGLE METER SERVICE WITH PRESSURE REDUCING VALVE

LAST REVISED 07/13/06

STANDARD PLAN 2–080–003



METER BOX LOCATION

1. SIDEWALKS – METER BOX 1' BEHIND SIDEWALK
2. THICKENED EDGE – SET METER BOX 3' OFF RIGHT-OF-WAY LINE (WITHIN R/W)
3. SHOULDER ROADS – SET METER ON BACKSIDE OF DITCH (WITHIN R/W)
4. SPECIAL CIRCUMSTANCES – CONSULT CITY ENGINEER
   NO BOXES IN DRIVEWAYS OR TRAVELED WAYS UNLESS APPROVED BY CITY ENGINEER.
5. CURB NO SIDEWALK – 6' BEHIND BACK OF CURB (WITHIN R/W)
6. SET METER PERPENDICULAR TO PAVING

NOTE: SERVICE LOCATION SHALL BE DETERMINED SIMULTANEOUSLY W/ OTHER UTILITIES SO THAT CONFLICTS ARE NOT ENCOUNTERED.

KEYED NOTES

A 1" TYPE K COPPER CUT TO FIT ONE CONTINUOUS LENGTH.
B 1" AWWA THREAD X MUELLER 110 (OR FORD QUICK JOINT) BALL CORPORATION STOP
C 1" SERVICE SADDLE WITH DOUBLE STAINLESS STEEL STRAPS EQUAL TO ROMAC FOR AC PIPE. DIRECT TAP FOR ALL OTHER TYPES OF PIPE.
D 1"x3/4" REDUCER MUELLER 110 OR APPROVED EQUAL
E METER SETTER W/CHECK, MUELLER B24104 OR EQUAL.
F METER TO BE INSTALLED BY CITY
G OWNER CONNECTS TO FEMALE OR MALE IPT
H CARSON BCF 1118-18XL SKU #11182014 PC COVER WITH PC READER LID: CARSON PC1118R SKU #11184050 (NON-TRAFFIC). 20K PC COVER: CARSON PC1118 SKU #11184074 (TRAFFIC)
I CONTRACTOR TO FURNISH PVC SPACER OF CORRECT LENGTH FOR SETTER.

LAST REVISED 04/03/07

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

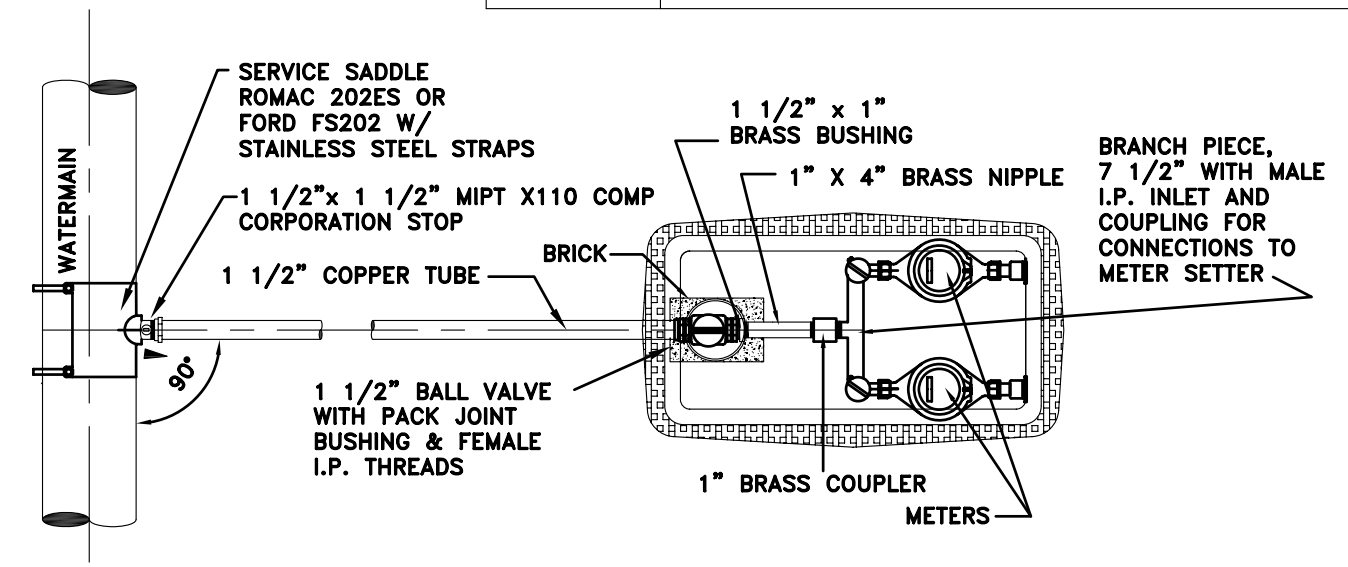
CITY OF Marysville WASHINGTON

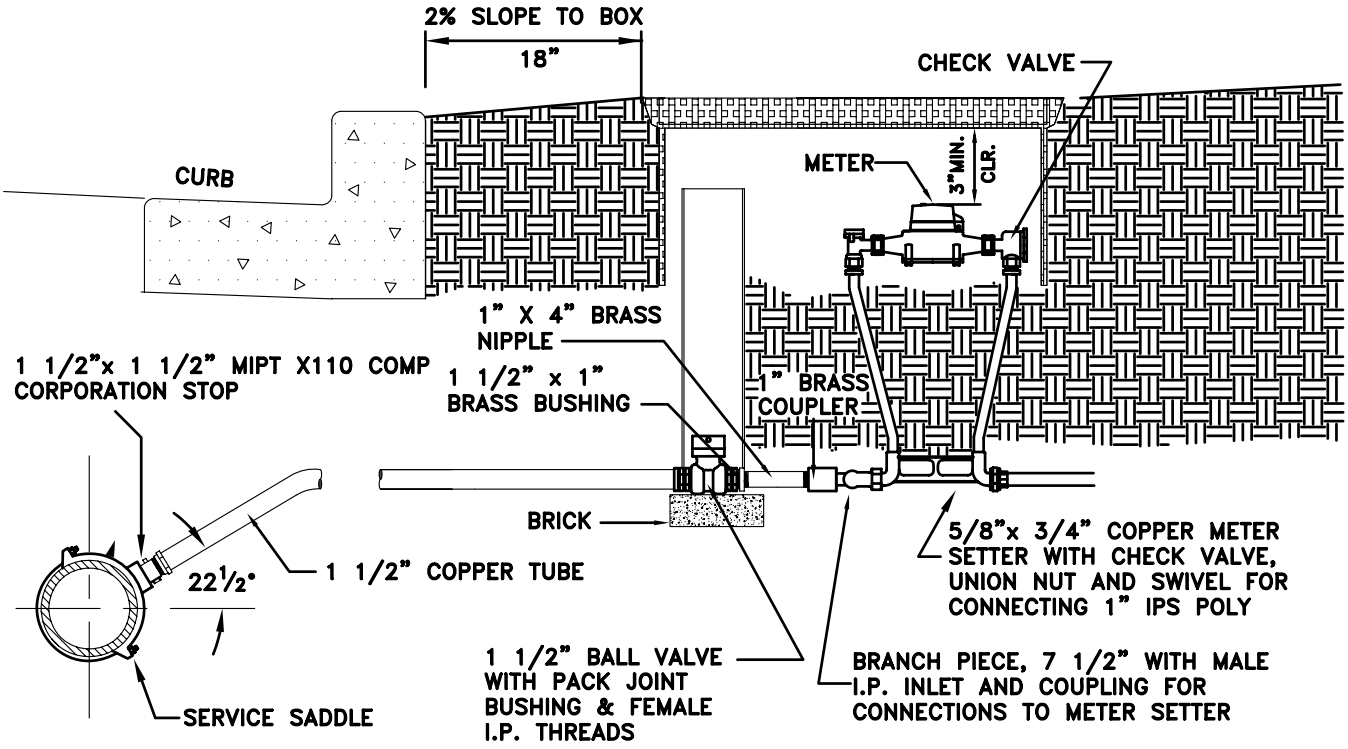
5/8" X 3/4", & 1" METER SERVICE

STANDARD PLAN 2-090-001

THE WATER MAIN IS IOCATED 6' FROM THE CENTERLINE OF THE ROAD ON THE NORTH OR EAST SIDES

ENVIRONMENT	5/8" DOUBLE METER BOX
TO BE USED IN ALL APPLICATIONS	CARSON BCF1527-18XL SKU#15272002 WITH POLYMER/CONCRETE LID AND LARGE POLYMER/CONCRETE READER LID: CARSON PC1527R SKU#15274018. LID SHALL BE TRAFFIC RATED IF REQUIRED.





GENERAL NOTES:

1. ALL SERVICE SADDLES SHALL HAVE RUBBER GASKET AND I.P. THREADS.
2. METER SETTERS: FORD VH 72-15W, AYMCDONALD 20-215WCDD44 OR MUELLER B2404-2X12.
3. BALL VALVE: FORD B61-666G, AYMCDONALD M6102-33 OR MUELLER E25171.
4. BRANCH PIECE: FORD U-88-43, AYMCDONALD 08UMM OR MUELLER H15364.

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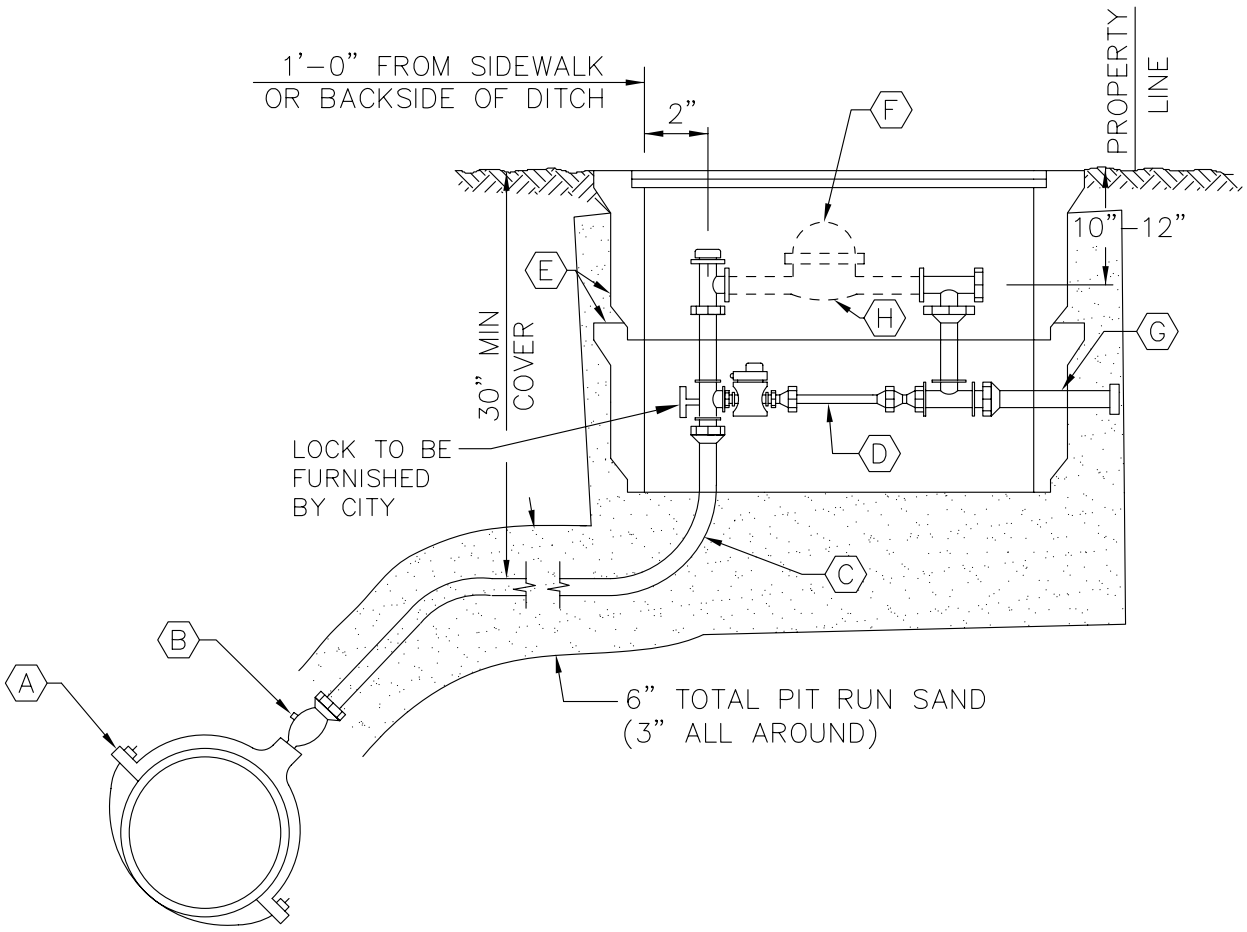
CITY OF Marysville WASHINGTON

5/8" DOUBLE METER SERVICE

STANDARD PLAN 2-090-001A

2-090-001A



(A) 1 1/2" OR 2" I.P. SERVICE SADDLE W/ DI DOUBLE STRAPS EQUAL TO ROMAC OR SMITH BLAIR. (STAINLESS DOUBLE STRAP FOR AC PIPE).

(B) 1 1/2" OR 2" I.P.Tx110 BALL VALVE CORPORATION STOP. FOR TYPE K COPPER SERVICE EQUAL TO MUELLER, FORD BALLCORP, INSTALLED @ A 45° ANGLE WITH KEY FACING UP.

(C) 1 1/2" OR 2" K COPPER HARD DRAWN OR COIL. CUT TO FIT, ONE CONTINUOUS LENGTH.

(D) METER SETTER W/ BYPASS, MUELLER, FORD, OR APPROVED EQUAL. SPACE BETWEEN ANGLE STOP AND CHECK ANGLE SHALL BE 13 1/2" FOR 1 1/2" SERVICE OR 17 1/2" FOR 2" SERVICE. SETTER SHALL HAVE THE FOLLOWING FEATURES:

PADLOCK WINGS ON KEY VALVE
ANGLE CHECK ON METER OUTLET
IRON PIPE CONNECTIONS ON SETTER INLET AND OUTLET
COMPRESSION ADAPTOR ON SETTER INLET
1" BY-PASS W/PADLOCK WINGS ON CURB STOP

(E) CARSON BCF 1730-18XL SKU #17302044
PC COVER WITH PC READER LID: CARSON PC1730R SKU #17304296 (NON-TRAFFIC).
20K PC COVER: CARSON PC1730 SKU #17304239 (TRAFFIC)

(F) METER IS TO BE INSTALLED BY CITY.

(G) 1 1/2" OR 2" DIA 15" LONG BRASS OR COPPER NIPPLE W/ PVC CAP.

(H) SPACER TO BE FURNISHED BY THE CITY AND INSTALLED BY THE CONTRACTOR

SIZE METER	LENGTH
1 1/2"	13 1/4"
2"	17 1/4"

NO GASKETS TO BE INSTALLED WITH SPACERS

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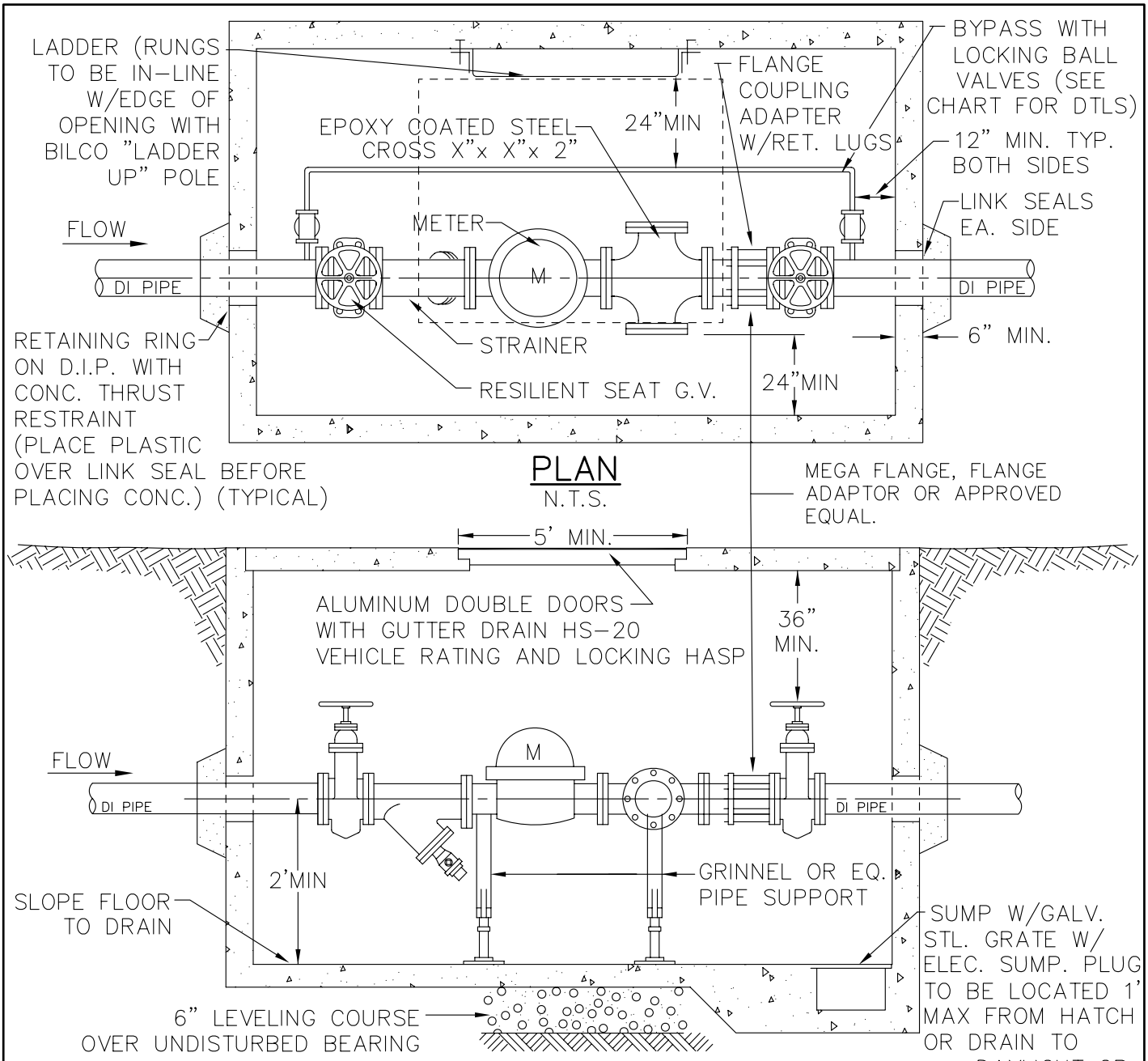
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

1 1/2" AND 2" SINGLE SERVICES

LAST REVISED 07/13/06

STANDARD PLAN 2-090-002



METER SIZE	RECOMMENDED BYPASS SIZE
3	1 1/2" COPPER
4	1 1/2" COPPER
6	2" COPPER
8	4" D.I.P.

NOTES:

1. COVER SHALL EXTEND 6" ABOVE GRADE WHEN VAULT IS NOT IN TRAFFIC AREA AND SHALL BE FLUSH IN TRAFFIC AREA.
2. SLOPE PAVEMENT AWAY FROM VAULT WHEN VAULT IS IN TRAFFIC AREA.
3. VAULT TO BE RATED FOR HIGHWAY USE (HS-20 VEHICLE RATING MINIMUM).
4. DOUBLE DETECTOR CHECK VALVE ASSEMBLY MUST BE INSTALLED BETWEEN METER AND POINT OF USE (BUILDING).
5. ALL BYPASSES SMALLER THAN 4" SHALL BE SADDLED.

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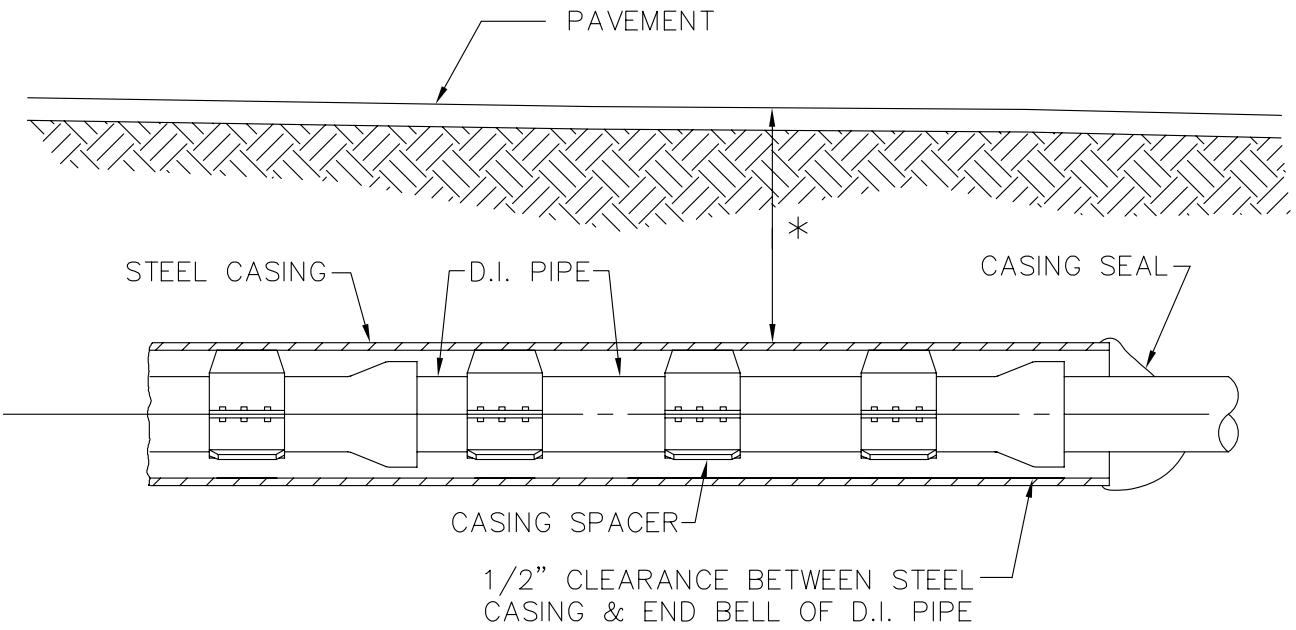
METER VAULT ASSEMBLY (METERS 2" & LARGER)

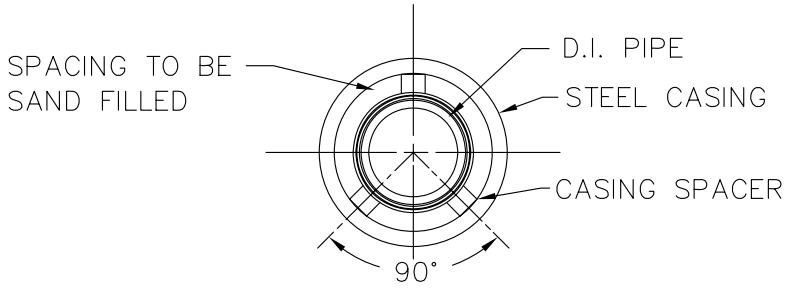
CITY OF Marysville WASHINGTON

LAST REVISED 10/16/01

STANDARD PLAN 2-090-004



* DEPTH PER APPLICABLE COUNTY/STATE REQUIREMENTS



NOTES:

CASING

SIZE AND MINIMUM THICKNESS OF CASING SHALL BE AS SHOWN ON THE CONTRACT DRAWINGS. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE THICKNESS CONSISTENT WITH HIS OPERATION.

CASING SEAL

MINIMUM 3/16" THICK, SHEET TYPE SYNTHETIC RUBBER WITH STAINLESS STEEL BANDS.

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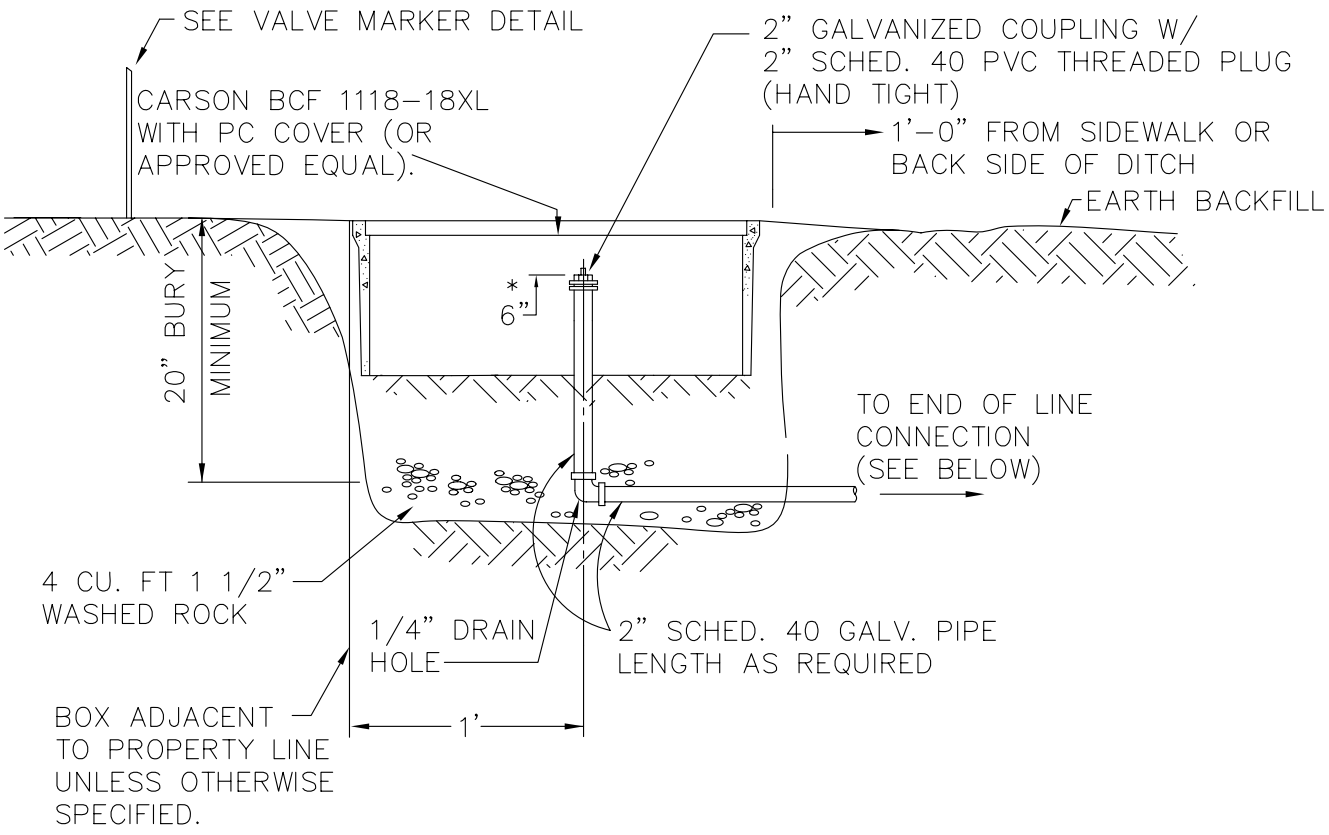
CITY OF Marysville WASHINGTON

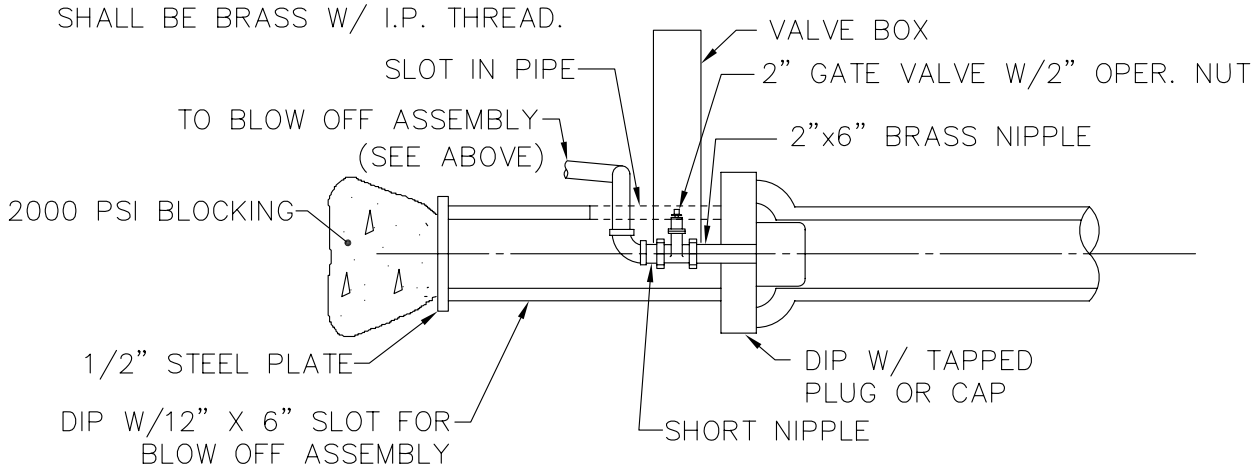
PIPE CASING

LAST REVISED 10/16/01

STANDARD PLAN 2-100-001



NOTES:
ALL PIPE AND FITTINGS FROM THE MAIN TO THE GATE VALVE SHALL BE BRASS W/ I.P. THREAD.



END OF LINE CONNECTION

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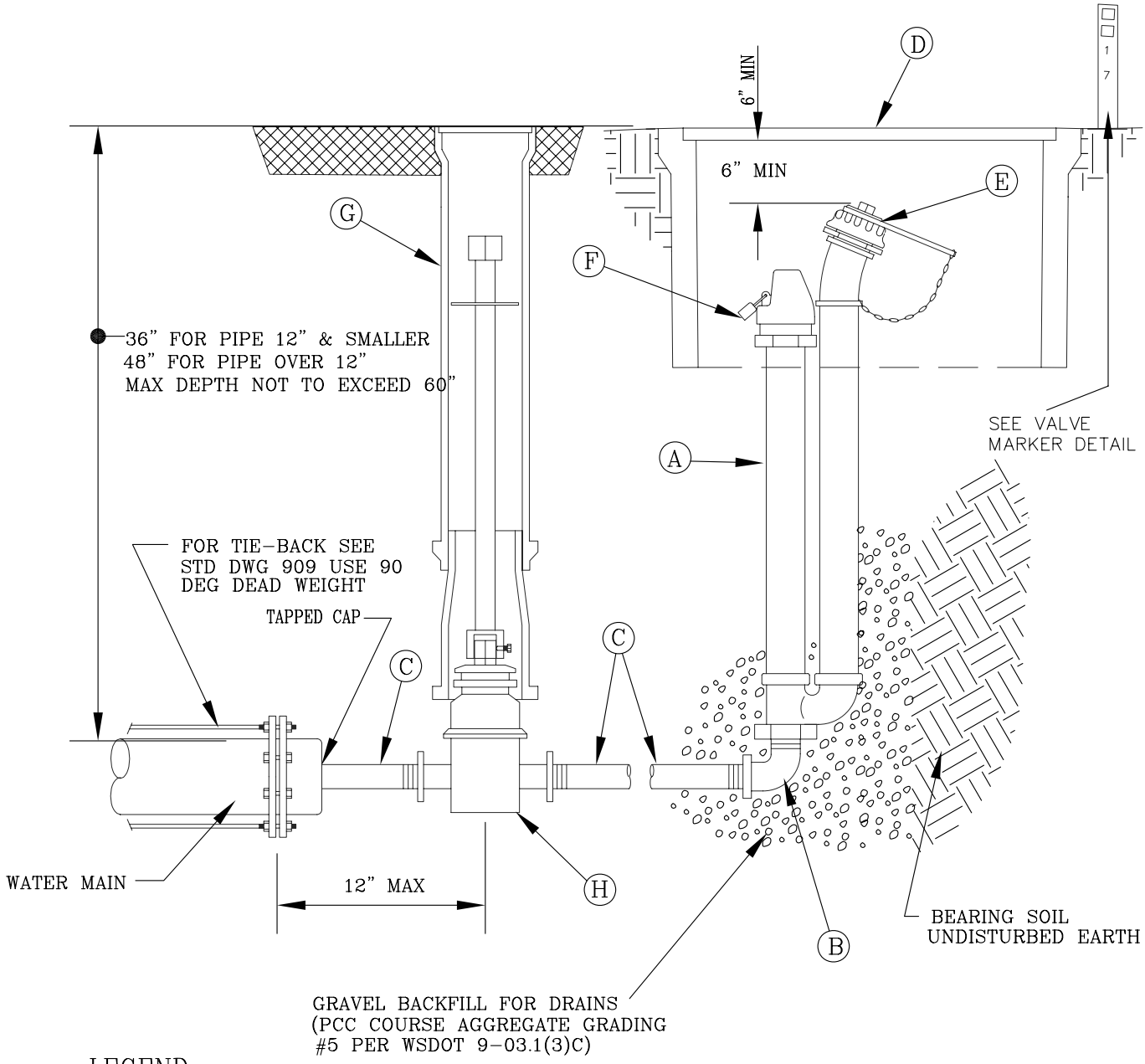
CITY OF Marysville WASHINGTON

TEMPORARY 2" BLOW OFF ASSEMBLY

LAST REVISED 07/14/06

STANDARD PLAN 2–120–001



LEGEND:

A. GIL #101GHS BLOW-OFF
B. 2" BRASS STREET "L"
C. 8"X8"X4" TEE
D. CARSON BCF 1118-18XL WITH PC COVER OR APPROVED EQUAL. LOCATED BEHIND SIDEWALK
E. 2" CAP NATIONAL STANDARD THREAD
F. LOCK TO BE SUPPLIED BY CITY OF MARYSVILLE.
G. VALVE BOX AND EXTENSION PER STD DWG 504
H. 4" GATE VALVE WITH RESILIENT SEAT (WATEROUS SERIES 500 OR M&H 3067 OR APPROVED EQUAL.

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MARYSVILLE CITY ENGINEER DATE

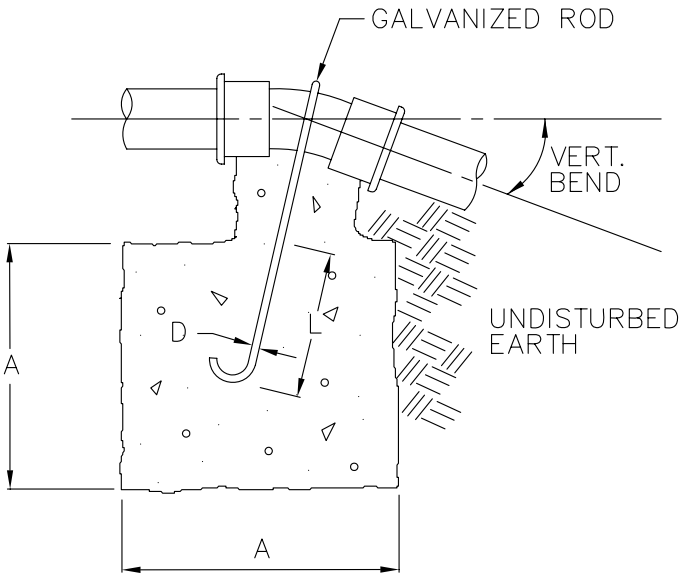
LAST REVISED 07/14/06

CITY OF Marysville WASHINGTON

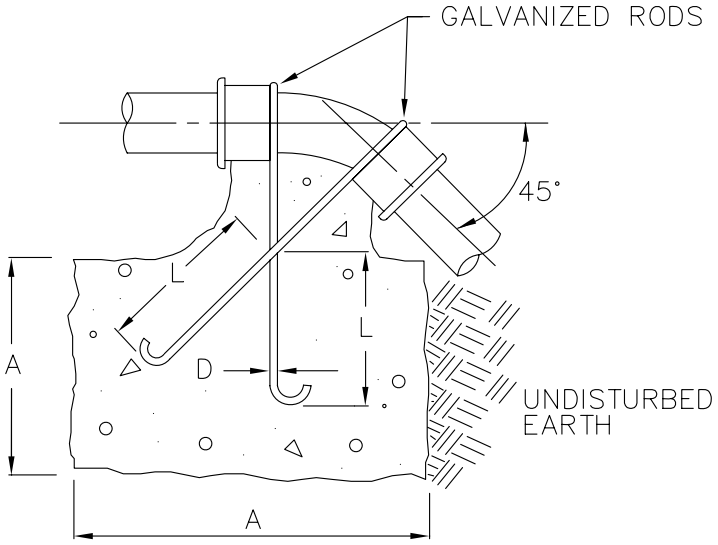
PERMANENT 2" BLOWOFF ASSEMBLY

STANDARD PLAN 2-120-002

VERTICAL BLOCKING FOR 11 1/4° & 22 1/2° BENDS					
PIPE SIZE	V B	CU FT	A	D	L
4"	11 1/4° 22 1/2°	8 11	2.0' 2.2'	3/4"	1.5' 2.0'
6"	11 1/4° 22 1/2°	11 25	2.2' 2.9'	3/4"	2.0'
8"	11 1/4° 22 1/2°	16 47	2.5' 3.6'	3/4"	2.0'
12"	11 1/4° 22 1/2°	32 88	3.2' 4.5'	3/4" 7/8"	2.0' 3.0'
16"	11 1/4° 22 1/2°	70 184	4.1' 5.7'	7/8" 11/8"	3.0' 4.0'
20"	11 1/4° 22 1/2°	91 225	4.5' 6.1'	7/8" 11/4"	3.0' 4.0'
24"	11 1/4° 22 1/2°	128 320	5.0' 6.8'	1" 13/8"	3.5' 4.5'
VERTICAL BLOCKING FOR 45° BENDS					
4"	45°	30	3.1'	3/4"	2.0'
6"		68	4.1'		
8"		123	5.0'		
12"		232	6.1'	3/4"	2.5'
16"		478	7.8'	11/8"	4.0'
20"		560	8.2'	11/4"	
24"		820	9.4'	13/8"	4.5'



VERTICAL BLOCKING FOR 11 1/4°, 22 1/2° & 30° BENDS



VERTICAL BLOCKING FOR 45° BENDS

NOTE: CONCRETE BLOCKING BASED ON 200 PSI PRESSURE AND 2500 PSI CONCRETE

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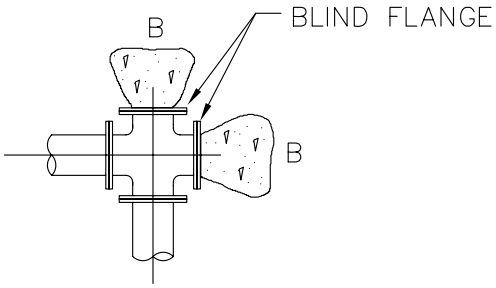
CITY OF Marysville WASHINGTON

VERTICAL THRUST BLOCKING DETAIL

LAST REVISED 10/16/01

STANDARD PLAN 2-130-001



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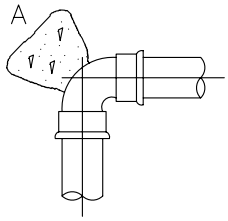
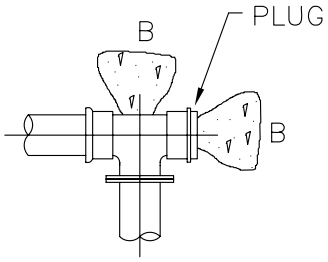
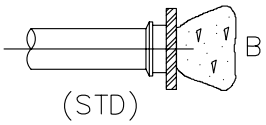


90° BEND

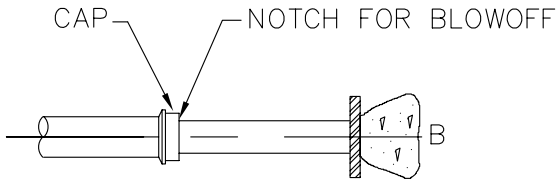


TEE

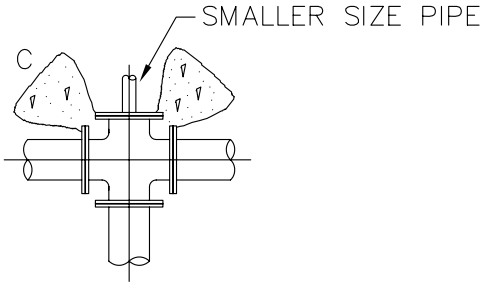


(STD)

OR



ONE PIPE SIZE SMALLER
THAN DEAD ENDING PIPE



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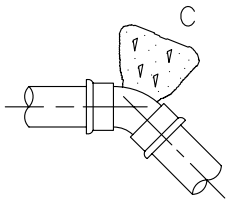
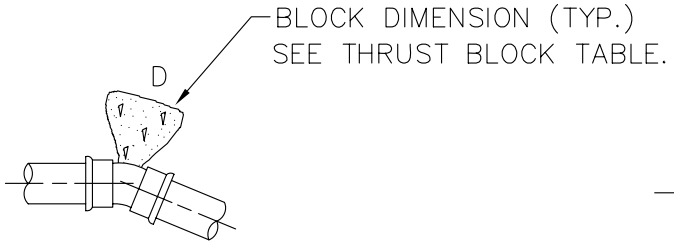
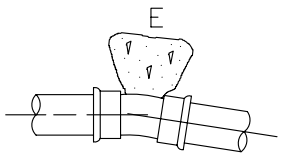


45° BEND



22 1/2° BEND



11 1/4° BEND

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MARYSVILLE CITY ENGINEER DATE

NOTES:

SEE THRUST BLOCK TABLE FOR ALL NOTES. PROVIDE POLYETHYLENE SHEETING TO COVER BOLTS AND JOINTS FOR DISMANTLING.

CONCRETE BLOCKING

CITY OF Marysville WASHINGTON

LAST REVISED 10/16/01

STANDARD PLAN 2-130-002

THRUST BLOCK – TABLE

MIN. BEARING AREA AGAINST UNDISTURBED SOIL
SQUARE FEET

PIPE SIZE	A ($FT.^2$)	B ($FT.^2$)	C ($FT.^2$)	D ($FT.^2$)	E ($FT.^2$)
3"	3	2	2	2	2
6"	4	4	2	2	2
8"	7	6	4	2	2
10"	11	10	6	3	2
12"	16	14	9	5	3
14"	22	19	12	6	3
16"	29	25	16	8	4
18"	36	31	20	10	5
20"	45	39	24	13	6
22"	54	47	29	15	8
24"	64	56	35	18	9
28"	87	76	48	24	12
30"	101	87	55	28	14
36"	145	125	78	40	20
42"	197	171	107	55	27
48"	257	223	140	71	36

NOTES:

1. BEARING AREA OF CONC. THRUST BLOCK BASED ON 200 PSI PRESSURE AND SAFE SOIL BEARING LOAD OF 2,000 POUNDS PER SQUARE FOOT.

2. AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZES, PRESSURES AND SOIL CONDITIONS.

3. CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE A MINIMUM BEARING SURFACE OF 6" X 6" SQUARE AGAINST THE FITTING.

4. BLOCK SHALL BEAR AGAINST FITTINGS ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT TAKING UP OR DISMANTLING OF JOINT.

5. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATION PRESSURE UNDER ALL CONDITIONS OF SERVICE.

6. ALL BOLTS AND NUTS SHALL BE POLYWRAPPED PRIOR TO POURING CONCRETE.

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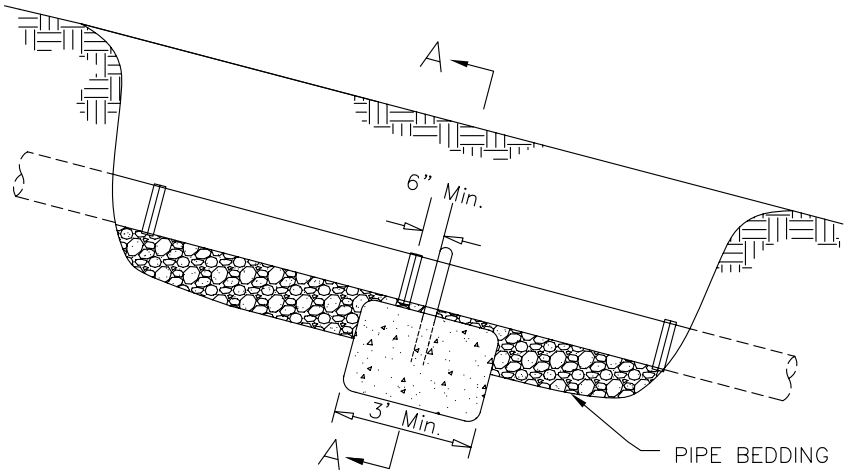
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

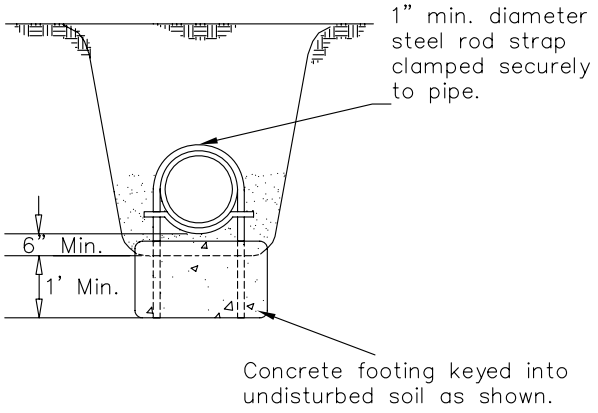
THRUST BLOCK TABLE

LAST REVISED 07/14/06

STANDARD PLAN 2–130–003



Step Footing
Anchor



Section A–A
NTS

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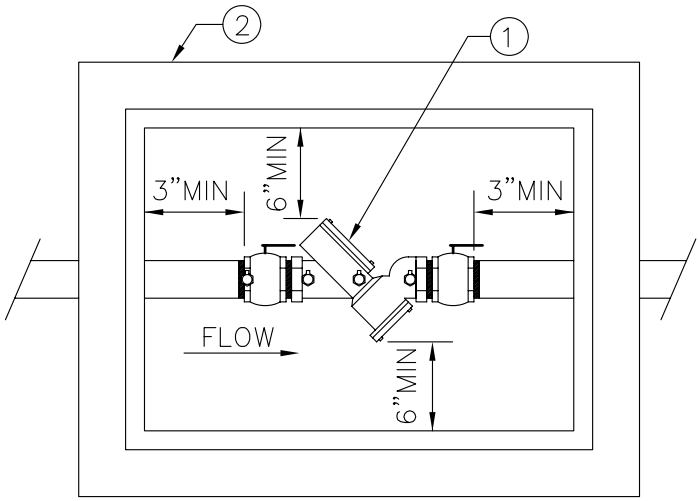
MARYSVILLE CITY ENGINEER DATE

PIPE ANCHOR DETAIL FOR SLOPES

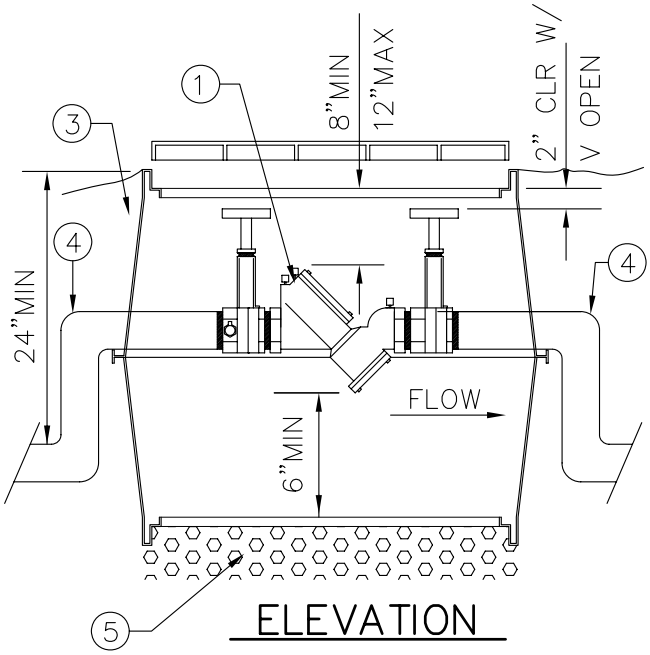
CITY OF Marysville WASHINGTON

LAST REVISED 8/10/01

STANDARD PLAN 2–140–001



PLAN



ELEVATION

LEGEND

(1) STATE APPROVED DOUBLE CHECK VALVE ASSEMBLY.

(2) IN TRAFFIC AREAS (FOR 2 1/2" ASSEMBLY AND SMALLER) USE:
PRECAST CONCRETE VAULT (UTILITY VAULT CO 233–LA, OR APPROVED EQUAL),
OR PLASTIC VALVE BOX (UTILITY VAULT CO 1324–12L, OR APPROVED EQUAL).
IN TRAFFIC AREAS:
A TRAFFIC LOADED BOX MUST BE USED AND LOCATION APPROVED BY THE CITY OF MARYSVILLE PRIOR TO INSTALLATION.

(3) IF A DAYLIGHT DRAIN CANNOT BE PROVIDED, THERE MUST BE A 4" MINIMUM LAYER OF FREE DRAINING GRAVEL AT THE BOTTOM OF THE BOX.

(4) ANGLES MAY BE IN OR OUT OF BOX, AS LONG AS SUFFICIENT ROOM IS ALLOWED AT EACH END FOR VALVE OPERATOR AND DCVA REPAIR OR MAINTENANCE.

(5) PROVIDE 4" OF PEA GRAVEL.

NOTES

ALL TEST COCKS MUST HAVE BRASS PLUGS.
2 TEST COCKS MUST FACE UP OR SIDEWAYS, WHICH EVER IS MORE ACCESSIBLE
3 TEE AND GATE VALVE REQUIRED ON MAIN.
4 SINGLE DETECTOR CHECKS ARE NOT APPROVED BACKFLOW PREVENTION ASSEMBLIES.
5 ASSEMBLY REQUIRES CERTIFICATION UPON INSTALLATION AND RECERTIFICATION ANNUALLY.
6 TEST COCKS ARE REQUIRED TO BE PLUGGED IF ASSEMBLY IS INSTALLED UNDERGROUND.
7 MAXIMUM HEIGHT OF ASSEMBLY IS FIVE FEET UNLESS AN OSHA APPROVED PLATFORM IS PROVIDED.
8 METER SHALL BE INSTALLED SUCH THAT IT CAN BE READ WITHOUT ENTERING VAULT WITH ACCESS HATCH OPEN.
9 ALL DIMENSIONS ARE MINIMUM CLEARANCE REQUIREMENTS.
10 MINIMUM INSIDE VAULT HEIGHT IS 78" FOR 3" SERVICE AND LARGER.

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

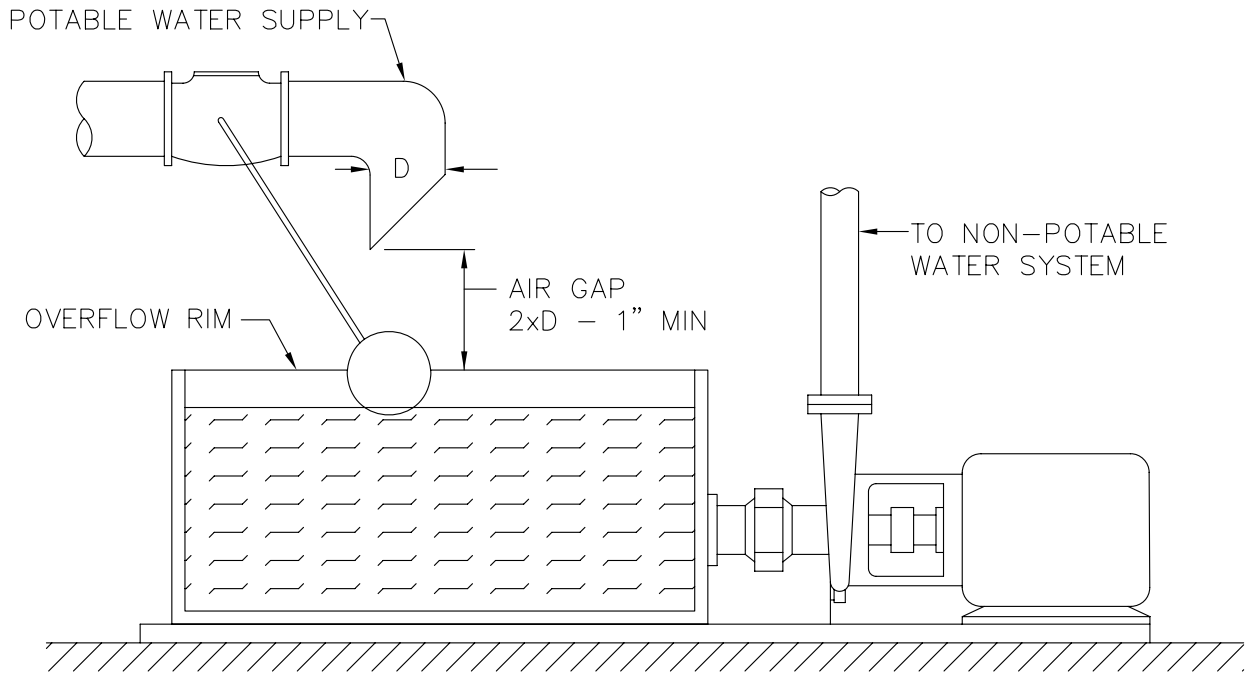
DOUBLE CHECK VALVE ASSEMBLY.

LAST REVISED 07/14/06

STANDARD PLAN 2–150–001

APPROVED AIR GAP SEPARATION

AN APPROVED AIR GAP IS A PHYSICAL SEPARATION BETWEEN THE FREE FLOWING DISCHARGE END OF A POTABLE WATER SUPPLY PIPELINE AND THE OVERFLOW RIM OF AN OPEN OR NON-PRESSURE RECEIVING VESSEL. THESE VERTICAL, PHYSICAL SEPERATIONS MUST BE AT LEAST TWICE THE DIAMETER OF THE INLET PIPE BUT NEVER LESS THAN ONE INCH. IF SPLASHING IS A PROBLEM, TUBULAR SCREENS MAY BE ATTACHED OR THE SUPPLY LINE OUTLET MAY BE CUT AT A 45 DEGREE ANGLE. IF THE SUPPLY LINE IS CUT AT A 45 DEGREE ANGLE, THE AIR GAP DISTANCE IS MEASURED FROM THE CENTER OF THE ANGLE. HOSES ARE NOT ALLOWED. BYPASSES ARE NOT ALLOWED. THE INSPECTION OF AIR GAPS SHALL BE INCLUDED IN THE YEARLY TESTING PROGRAM FOR BACKFLOW ASSEMBLIES.



APPROVED BY

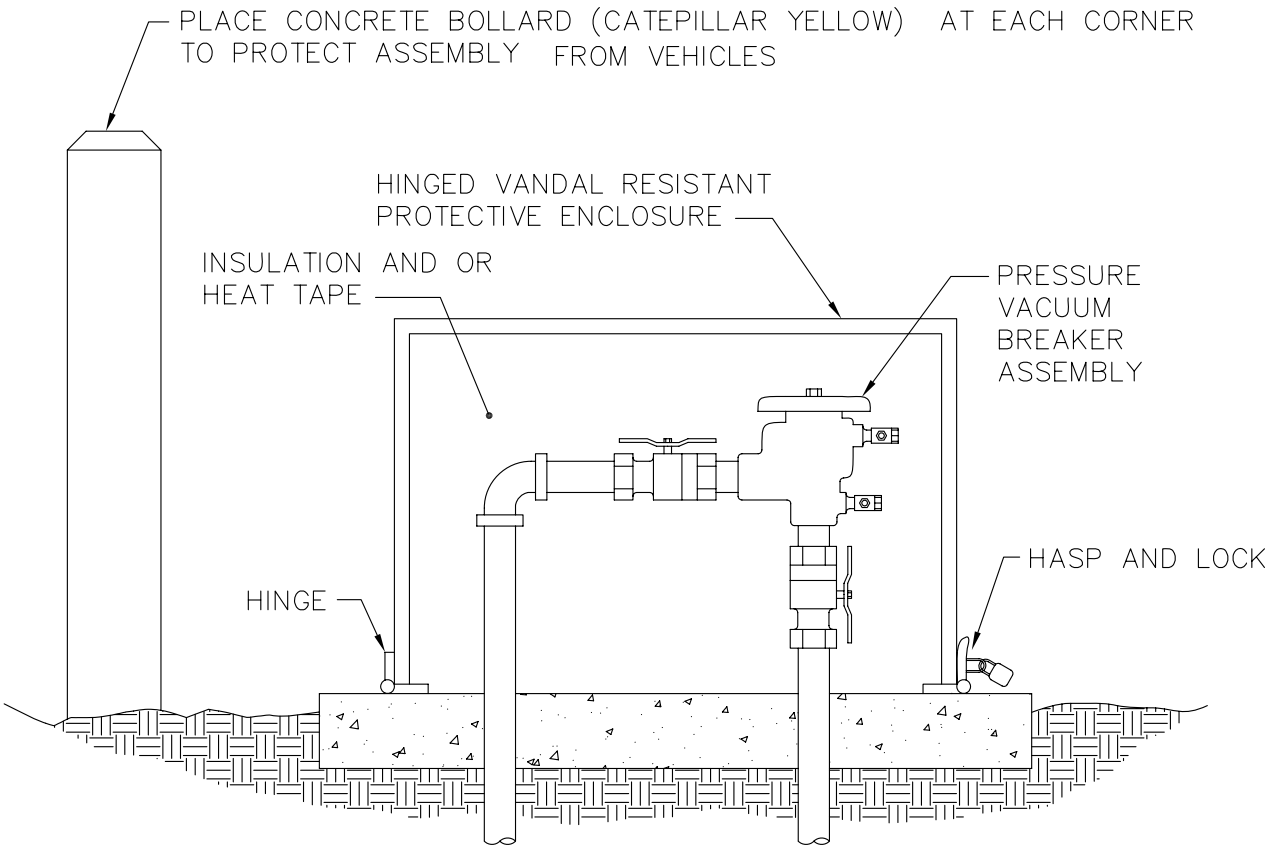
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

AIR GAP FOR MAKEUP TANK

LAST REVISED 07/14/06

STANDARD PLAN 2-150-002



APPROVED BY

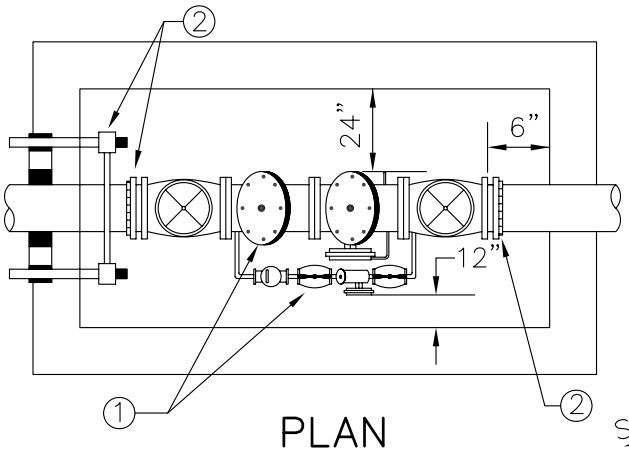
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

PRESSURE VACUUM BREAKER ASSEMBLY

LAST REVISED 8/10/01

STANDARD PLAN 2–150–003



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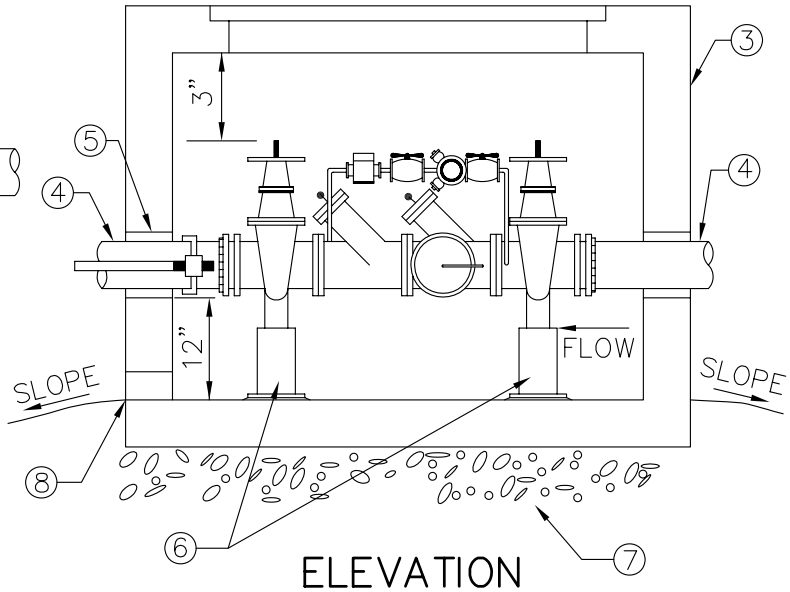


ELEVATION

LEGEND

① UL–FM LISTED SOFTSEATED STATE APPROVED REDUCED PRESSURE DETECTOR ASSEMBLY INCLUDING: 2–O.S.&Y. RESILIENT SEATED GATE VALVES, TEST COCKS, 3/4" BRASS OR COPPER BYPASS WITH IN LINE VALVES, 5/8" METER (METER TO READ IN GALLONS), AND A 3/4" REDUCED PRESSURE BACKFLOW ASSEMBLY.

② UNI–FLANGE WITH SET SCREWS OF MJ x FL ADAPTOR WITH MEGALUG OR GALVANIZED SHACKLE TO MAIN WITH 2–3/4" RODS, OR MJ RETAINER GLANDS.

③ PRECAST CONCRETE VAULT WITH STEEL ACCESS HATCH (AS MANUFACTURED BY UTILITY VAULT CO. OR AN APPROVED EQUAL).
ABOVE GROUND INSTALLATIONS WILL: BE PROVIDED WITH 6–6'x36" STEEL DOOR FOR ACCESS. THE EXTERIOR WILL BE PAINTED WITH AN APPROVED PAINT, PROVIDED WITH SUFFICIENT INSULATION TO PREVENT FREEZING, AND SITE WILL BE PROVIDED WITH A 6' HIGH SECURITY FENCE WITH PEDESTRIAN AND VEHICLE GATES.

④ DUCTILE IRON PIPE (SIZED AS REQUIRED) CLASS 52.

⑤ WATER TIGHT GROUT SHALL BE USED IN ALL VAULT PENETRATIONS.

⑥ 2 – GALVANIZED ADJUSTIBLE PIPE SUPPORTS FOR 2 1/2" DIAMETER AND LARGER PIPE.

⑦ GRAVEL FOUNDATION AS REQUIRED.

⑧ DRAIN SHALL BE INSTALLED WITH APPROVED AIR GAP (SEE SP 2–153–004), BE ABLE TO BE BORE SIGHTED TO DAYLIGHT WHICH MUST BE ABOVE 100 YEAR FLOOD LEVEL. DRAIN WILL BE SIZED SO AS TO PROVIDE FREE GRAVITY DRAINAGE OF MAX DISCHARGE OF RELIEF VALVE PORT.

NOTES

1. TEE AND GATE VALVE REQUIRED ON MAIN.
2. MAXIMUM HEIGHT OF ASSEMBLY IS 5' UNLESS AN OSHA APPROVED PLATFORM IS PROVIDED.
3. MINIMUM INSIDE VAULT HEIGHT IS 78" FOR 3" SERVICE AND LARGER.
4. METER SHALL BE INSTALLED IN SUCH A WAY THAT IT CAN BE READ WITHOUT ENTERING VAULT WITH ACCESS HATCH OPEN.
5. ALL DIMENSIONS ARE MINIMUM CLEARANCE REQUIREMENTS.
6. ASSEMBLY REQUIRES CERTIFICATION UPON INSTALLATION & ANNUAL RECERTIFICATION.

APPROVED BY

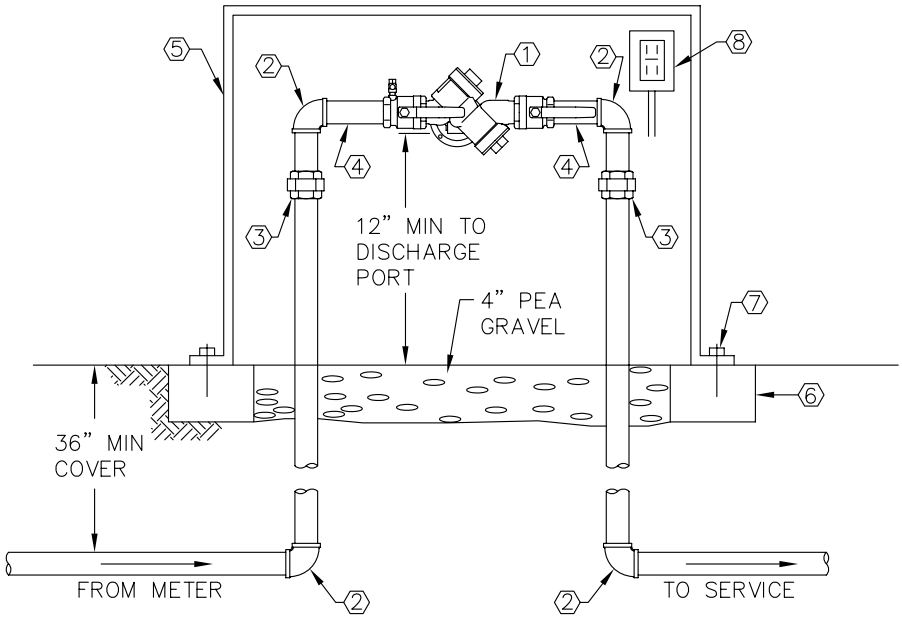
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

REDUCED PRESSURE DETECTOR ASSEMBLY

LAST REVISED 07/14/06

STANDARD PLAN 2–151–001



1", 1–1/2", & 2" REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY

LEGEND

⟨1⟩ UL–FM LISTED REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY WITH ISOLATION VALVES AND TEST COCKS. FEBCO MODEL 825Y OR EQUAL. VALVE MUST BE ON LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES PREPARED BY THE WASHINGTON STATE DEPARTMENT OF HEALTH DRINKING WATER PROGRAM.
⟨2⟩ 90° BEND, THREADED BRASS
⟨3⟩ UNION, THREADED BRASS
⟨4⟩ SCHEDULE 80 RIGID COPPER PIPE

IF INSTALLED OUTDOORS:

⟨5⟩ HEATED AND INSULATED FIBERGLASS ENCLOSURE WITH HINGED LOCKABLE LID WHICH EXPOSES TOP AND FRONT OF RPBP ASSEMBLY. SHALL BE EQUIPPED WITH A SCREENED DRAINAGE PORT AT THE BASE AND FLEXIBLE FLAPS TO PREVENT DRAFTS.
FOR 1" ASSEMBLY: HOT–BOX MODEL #1 – 27"W x 13"D x 23"H MINIMUM INSIDE DIMENSIONS.
FOR 1–1/2" ASSEMBLY: HOT–BOX MODEL #1.5 – 33"W x 21"D x 23"H MIN. INSIDE DIMENSIONS.
FOR 2" ASSEMBLY: HOT–BOX MODEL #2 – 39"W x 13"D x 35"H MINIMUM INSIDE DIMENSIONS.
AS MANUFACTURED BY NORTHEAST FLORIDA ENTERPRISES, INC.
⟨6⟩ 6" WIDE X 4" HIGH CAST–IN–PLACE CONCRETE FOOTING AROUND BASE OF ENCLOSURE.
⟨7⟩ STAINLESS STEEL ANCHOR BOLTS, SIZE AND NUMBER AS RECOMMENDED BY ENCLOSURE MANUFACTURER.
⟨8⟩ 120 VOLT, SINGLE PHASE, 15 AMP GROUND FAULT INTERRUPTING RECEPTACLE, U.L. STANDARD 943, N.E.M.A. 3R. POWER SERVICE SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND CITY OF MARYSVILLE ORDINANCES. MOUNT RECEPTACLE AT TOP OF THE BACK WALL OF ENCLOSURE.

NOTES:

1. ALL PIPE AND FITTINGS SHALL BE SAME SIZE AS RPBP VALVE.
2. RPBP ASSEMBLY SHALL BE INSTALLED WITH TEST COCKS TOWARDS FRONT OF ENCLOSURE (FOR OUTDOOR INSTALLATIONS).
3. RPBP ASSEMBLY MAY BE INSTALLED INDOORS FOR FREEZE PROTECTION. INDOOR INSTALLATIONS SHALL MEET CITY OF MARYSVILLE PLUMBING CODES AND BE ACCESSIBLE AND AVAILABLE TO CITY STAFF FOR ANNUAL RECERTIFICATIONS.
4. RPBP ASSEMBLY SHALL BE CERTIFIED BY THE CITY UPON INSTALLATION AND RECEIVE ANNUAL RECERTIFICATIONS.

APPROVED BY

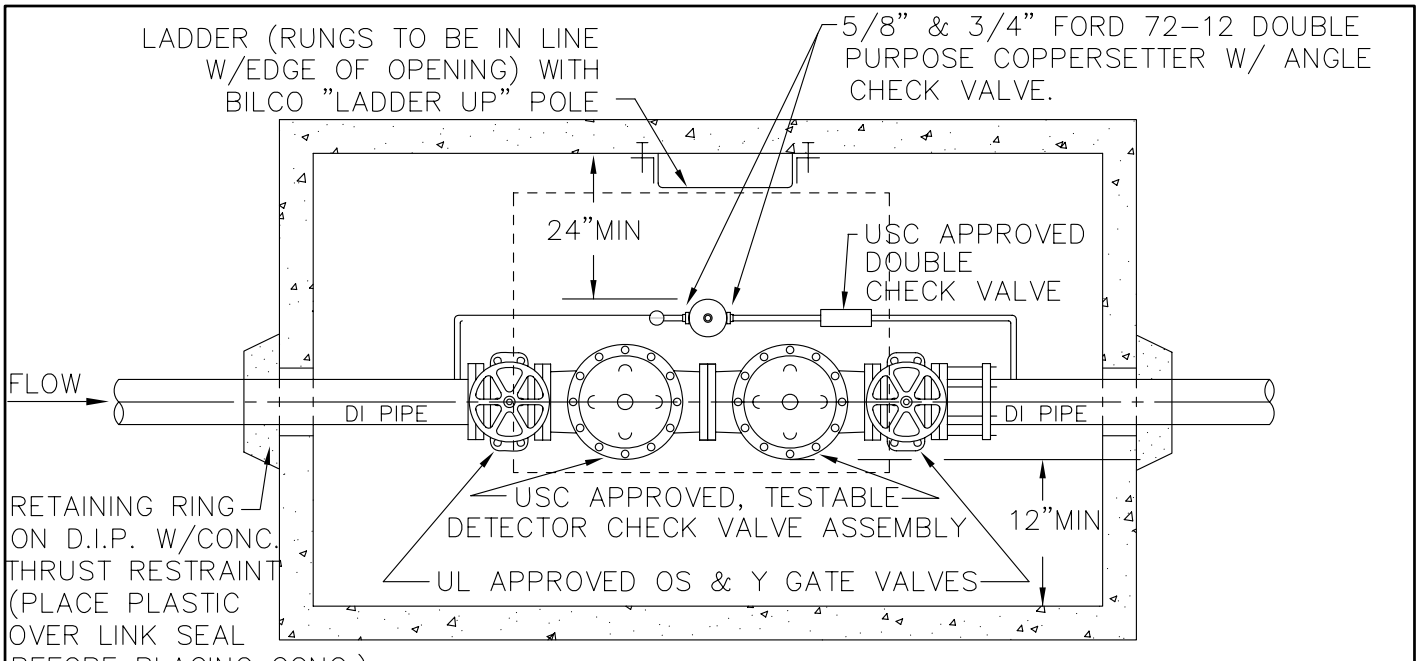
MARYSVILLE CITY ENGINEER DATE

1", 1 1/2" & 2" REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY

CITY OF Marysville WASHINGTON

LAST REVISED 10/16/01

STANDARD PLAN 2–151–002



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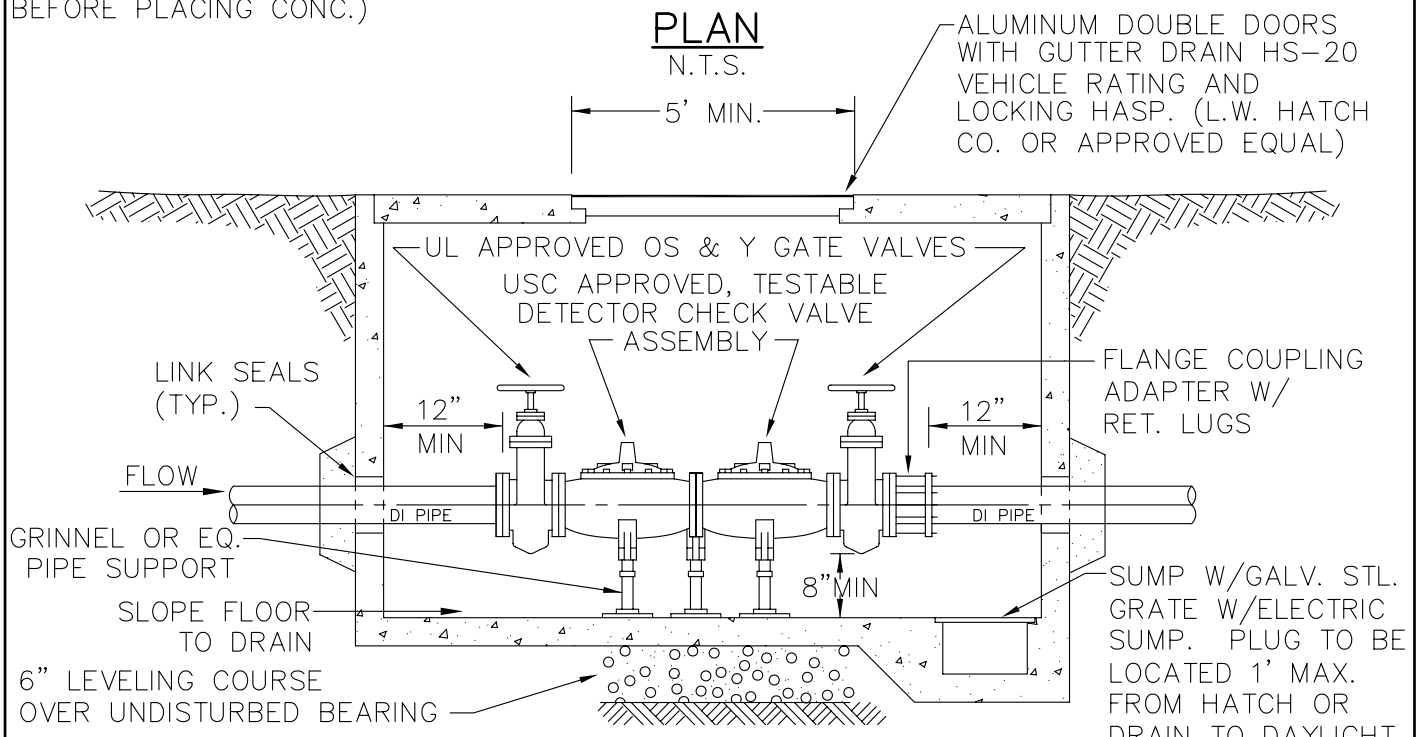


SECTION
N.T.S.

NOTES

1. 5/8" METER TO BE SUPPLIED BY CITY.
2. COVER SHALL EXTEND 6" ABOVE GRADE WHEN VAULT IS NOT IN TRAFFIC AREA AND SHALL BE FLUSH IN TRAFFIC AREA.
3. SLOPE PAVEMENT AWAY FROM COVER WHEN VAULT IS IN TRAFFIC AREA.
4. ALL BYPASSES TO BE SADDLED AND NOT DIRECT-TAPPED.
5. ALTERNATE LOCATION FOR FIRE SYSTEM; INSIDE BUILDING W/EXTERIOR DOOR FOR IMMEDIATE ACCESS.
6. ALL VALVES TO INCLUDE TAMPER SWITCH FOR FIRE SYSTEMS.

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

DOUBLE CHECK DETECTOR VALVE

LAST REVISED 07/14/06

STANDARD PLAN 2-153-001

CHAPTER 3

ENGINEERING DESIGN and DEVELOPMENT STANDARDS

September 1999
Revised May 2007

Prepared by:

City of Marysville
Public Works / Community Development

Table of Contents

CHAPTER 3

ROAD DESIGN STANDARDS

General Considerations

3-100 Shortened Designation

These City of Marysville Engineering Design and Development Standards will be cited routinely in the text as the "Standards."

3-101 Applicability

These Standards shall apply prospectively to all newly constructed road and right-of-way facilities, both public and private, within the City of Marysville. In the event of conflict with any other City Standards, the Public Works Director or designee shall determine which standard shall control.

In addition, the Standards apply to modifications of roadway features of existing facilities which are within the scope of reconstruction, required off-site road improvements for land developments, or capital improvement projects when so required by the City of Marysville or to the extent they are expressly referred to in project plans and specifications. These Standards are not intended to apply to "resurfacing, restoration, and rehabilitation" projects as those terms are defined in the WSDOT, Local Agency Guidelines, as amended; however, the Public Works Director or designee may at his discretion consider the Standards as optional goals.

The Standards shall apply to every new placement and every planned, non-emergency replacement of existing utility poles and other utility structures within the City of Marysville right-of-way.

3-102 Responsibility to Provide Roadway Improvements

A. Any land development which will impact the service level, safety, or operational efficiency of serving roads or is required by other City code or ordinance to improve such roads shall improve those roads in accordance with these Standards. The Public Works Director or designee shall base the extent of off-site improvements to serving roads on an assessment of the impacts of the proposed land development.

B. Any subdivision of land or development as described in Title 12 of Marysville Municipal Code abutting and impacting existing roads shall improve the frontage of those roads in accordance with these Standards. The Public Works Director or designee shall base the extent of on and offsite improvements on an assessment of the impacts of the proposed land development.

C. Any land development that contains internal roads shall construct or improve those roadways to these Standards.

D. It is the City's practice to not allow subdivisions to be recorded unless there exists a recorded continuous public access, i.e., right-of-way or easement to the subdivision except as provided for in Section 3-205, nor will the City accept a road for maintenance until the road is directly connected to a City or other publicly maintained road.

E. All road improvement and development projects shall include pedestrian access as a part of the design. Where existing roadways are to be modified, pedestrian facilities shall be as described in Sections 3-513, 3-518, 3-519, and 3-523.

3-103 General References

The Standards implement and are intended to be consistent with:

A. Marysville Municipal Code

B. Marysville Comprehensive Plans

3-104 WSDOT/APWA Documents as Primary Design and Construction References

Except where these Standards provide otherwise, design detail, construction workmanship, and materials shall be in accordance with the following publications produced separately by Washington State Department of Transportation (WSDOT), or jointly by WSDOT and Washington State Chapter of American Public Works Association (APWA).

A. WSDOT Standard Specifications for Road, Bridge, and Municipal Construction, as adopted by the City of Marysville, current edition as amended. These will be referred to as the "WSDOT Standard Specifications."

B. The WSDOT/APWA Standard Plans for Road and Bridge Construction, to be referred to as the "WSDOT/APWA Standard Plans," current edition as amended.

C. WSDOT Design Manual, current edition as amended.

D. City Design Standards for the Construction of Urban and Rural Arterial and Collector Roads adopted per RCW 35.78.039 and RCW 43.32.020, May 24, 1989, current edition as amended.

3-105 Other Specifications

The following shall be applicable when pertinent, when specifically cited in the Standards or when required by state or federal funding authority.

A. Roadway drainage shall be in accordance with the City of Marysville Surface Water Design Standards.

B. WSDOT Local Agency Guidelines, as amended.

C. WSDOT Guidelines for Urban Arterial Program, as amended.

D. Design criteria of federal agencies including the Federal Housing Administration, Department of Housing and Urban Development; and the Federal Highway Administration, Department of Transportation,

E. A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials (AASHTO), or current edition when adopted by WSDOT.

F. Standard Specifications for Highway Bridges, adopted by AASHTO, current edition.

G. U. S. Department of Transportation Manual on Uniform Traffic Control Devices, "MUTCD", as amended and approved by Washington State Department of Transportation, current edition.

H. Guide for the Development of Bicycle Facilities, adopted by AASHTO, current edition,

I. Associated Rockery Contractors, Standard Rock Wall Construction Guidelines.

J. American Society for Testing and Materials (ASTM).

K. City of Marysville Access Management Plan

3-106 Road Plans

Plans for roads and road drainage shall be prepared by a Washington State licensed professional Civil Engineer and submitted consistent with these Standards. These requirements shall apply to public or private roads whether constructed by private party or public agency. Appendix A contains a Plan Preparation checklist of construction plan requirements. Subject to review, the Public Works Director or designee may waive plan requirements, wholly or in part, based on the following criteria:

For improvements to existing roads if:

1. No more than 5,000 square feet will be cleared and graded within the right-of-way or easement; and
2. The existing grade or slope in the road right-of-way or easement does not exceed 12 percent; and
3. The work will not intercept a stream or wetland or otherwise impact natural surface drainage as set forth in City Code regarding Sensitive Areas and the Surface Water Design Manual; and
4. Plans do not include a retention/detention facility within the right-of-way; and
5. The work is required of a short plat development, or a right-of-way use permit and involves less than 100 lineal feet of existing public road improvement; and
6. City of Marysville standard drawings, submitted with required permits, are sufficient to describe the improvement to be constructed.

3-107 Variances

A. Variances from these Standards may be granted by the Public Works Director or designee upon evidence that such variances are in the public interest and that requirements for safety, function, fire protection, appearance and maintainability based upon sound engineering judgment are fully met. Detailed procedures for requesting variances and appeals variance decisions are contained in the Marysville Municipal Code. Variance requests for subdivisions should be proposed at preliminary plat stage and prior to any public hearing. Variances must be approved prior to approval of the engineering plans for construction. Any anticipated variances from these Standards, which do not meet the Uniform Fire Code, shall also require concurrence by the Fire Marshal.

B. Questions regarding interpretation of these Standards may be directed to the Public Works Director or designee.

3-108 Penalties and Financial Guarantees

Failure to comply with these Standards may result in denial of plan or development permit approval, revocation of prior approvals, legal action for forfeiture of financial guarantee, code enforcement, and/or other penalties as provided by law.

3-109 Meaning of Terms

"ACP Cl. B" Asphalt Concrete Pavement Class B

"ATB" Asphalt Treated Base

"Alley": A thoroughfare or right-of-way, usually narrower than a street, which provides access to the rear boundary of two or more residential or commercial properties and is not intended for general traffic circulation. Alleys are only permitted for properties fronting a public road.

"Auxiliary Lane": The portion of the roadway adjoining the traveled way for parking, turning or other purposes supplementary to through-traffic movement.

"Bulb": Round area for vehicle turn around typically located at the end of a cul-de-sac street.

"CSBC" Crushed Surfacing Base Coarse

"CSTC" Crushed Surfacing Top Coarse

"Cul-de-sac": Short street having one end open to traffic and the other temporarily or permanently terminated by a vehicle turn around.

"Design Speed": The speed approved by the Public Works Director or designee for the design of the physical features of a road as established by Sections 3-201, 3-202 and 3-203 for residential and commercial access streets or equal to 5 miles per hour above the current, or

expected posted speed limit for arterials. In certain situations the Public Works Director or designee may consider 5 miles per hour above the 85-percentile speed.

"Developer": Any person, firm, partnership, association, joint venture or corporation or any other entity who undertakes to improve residential, commercial, or industrial property or to subdivide for the purpose of resale and profit.

"Driveway": A privately maintained access to residential, commercial, or industrial properties.

"Engineer": City of Marysville City Engineer or designee, having authorities specified in RCW 36.75.050 and 36.80, or his/her authorized representative.

"Eyebrow": A partial bulb located adjacent to the serving road that provides access to lots and serves as a vehicle turn around.

"GB": Gravel Borrow

"HMA – Hot Mix Asphalt

"Half-Street": Street constructed along edge of development, utilizing a portion of the regular width of right-of-way and permitted as an interim facility pending construction of the other half of the street by the adjacent owner.

"Joint-Use Driveway Tract": A jointly owned and maintained tract or easement serving two properties.

"LID": Low Impact Development or Local Improvement District

"Landing": A road or driveway approach area to any public or private road.

"Loop": Road of limited length forming a loop, having no other intersecting road, and functioning mainly as direct access to abutting properties. A loop may be designated for one-way or two-way traffic.

"Off-Street Parking Space": An area accessible to vehicles, exclusive of roadways, sidewalks, and other pedestrian facilities, that is improved, maintained and used for the purpose of parking a motor vehicle.

"PRD": Planned Residential Development

"Pavement Width": Paved area on shoulder-type roads or paved surface between curb, thickened edge or gutter flow line on all other roads as depicted in the Standard Plans.

"Pipe Stem": A strip of land having a width narrower than that of the lot or parcel to be served and is designed for providing access to that lot or parcel.

"Private Road": A privately owned and maintained access provided for by a tract, easement, or other legal means, serving up to a maximum of 4 lots and a maximum of 8 dwelling units. Private roads are only permitted in Short Subdivisions with 4 or less total development lots.

"Professional Engineer": A professional civil engineer licensed to practice in the State of Washington.

"Public Street": Publicly owned facility-providing access, including the roadway and all other improvements, inside the right-of-way.

"Record Drawings": The original construction drawings revised to incorporate information pertaining to the street and/or utility improvements as they were constructed.

"Right-of-Way": Real Property, usually in a strip, acquired for or devoted to public transportation purposes.

"Road": A facility providing public or private access including the roadway and all other improvements inside the right-of-way.

"Road" and "Street" will be considered interchangeable terms for the purpose of these Standards.

"Roadway": Pavement width plus any non-paved shoulders.

"Shoulder": The paved or unpaved portion of the roadway outside the traveled way that is available for emergency parking or non-motorized use.

"Traveled Way": The part of the road made for vehicle travel excluding shoulders and auxiliary lanes.

"Utility": A company providing public service such as natural gas, petroleum, electric power, telephone, telegraph, water, sewer, or cable television, whether or not such company is privately owned or owned by a governmental entity.

"Standard Plan": WSDOT Standard Plans for Road, Bridge, and Municipal Construction or Standard Plans included in this document as referenced.

3-110 Severability

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

Road Types and Geometry

3-200 Road Classifications

Functional classifications are used for planning and designing roadway facilities. A functional classification system provides a framework for defining the uses of roadways. For example, roadways may be designed to emphasize through-traffic movement, access to adjacent properties, or some combination of these functions. General definitions of functional classification are presented in the following Table. These definitions will serve as a guide in classifying streets.

Functional classification definitions

Freeway/Expressway:	Inter-regional divided highways connecting major centers. Typically, freeways have two or more lanes for traffic in each direction; access is limited to interchanges designed for higher speed merging/diverging traffic.
Principal Arterial:	Inter-community roadways connecting community centers or major facilities. Principal arterials are generally intended to serve predominantly "through" traffic. Direct access to abutting property will be discouraged. Spacing between parallel principal arterials is generally two miles or greater.
Minor Arterials:	Provides for intra-community travel for areas bounded by the principal arterial system. Minor arterials serve trips of moderate length. . Direct access to abutting property will be discouraged. Spacing of minor arterials is typically less than two miles.
Collector Arterials:	Provides for movement within a community, including connecting neighborhoods with smaller community centers. Collector arterials also provide connections to minor and principal arterials. Property access is generally a higher priority for collector arterials with a lower priority for through traffic movements. Spacing of collector arterials is generally one mile or less.
Neighborhood Collector:	Provides connections to arterial system for individual neighborhoods and provides circulation within and/or between neighborhoods. Spacing of neighborhood collectors is typically one-half mile or less.
Local Access Streets:	Primary function of local access streets is access to abutting properties. Local streets include a variety of designs and spacing depending on access needs.

3-201 Arterial Roads

Comprising the City primary road system, see Standard Plans No. 3-201-001 through 3-201-004.

CLASSIFICATION	PRINCIPAL ARTERIALS	MINOR ARTERIALS	COLLECTOR ARTERIALS OR "COLLECTORS"
Access	See Marysville Access Management Plan	See Marysville Access Management Plan	See Marysville Access Management Plan
Land Use Area			
Arterial Spacing	2 miles or greater	Under 2 miles	Under 1 mile
CRITERIA			
A. Typical Road Type	Curb & Gutter	Curb & Gutter	Curb & Gutter
B. Design Speed (MPH)	Varies 30-40	Varies 30-40	Varies 30-40
C. Horizontal Curvature	See Table 3-2.1	See Table 3-2.1	See Table 3-2.1
D. Maximum Grade (%) [3]	10	10	12
E. Standard Stopping Sight Distance (Ft). (4)	See Table 3-2.1	See Table 3-2.1	See Table 3-2.1
F. Standard Entering Sight Distance (Ft.) [5]	See Table 3-2.1	See Table 3-2.1	See Table 3-2.1
G. Minimum Passing Sight Distance on 2-Lane Road (Ft.)	See Table 3-2.1	See Table 3-2.1	See Table 3-2.1
H. Corner Radii	See Section 3-209	See Section 3-209	See Section 3-209
I. Min. Half St. Paved Width (ft)	30	24	22

NOTES:

1. Within the above parameters, geometric design requirements shall be determined for specific arterial roads consistent with the WSDOT Design Manual.
2. Design speed is a basis for determining geometric elements and does not imply posted or legally permissible speed. Curves shall be designed within parameters of section 3-204.
3. Maximum grade may be exceeded for short distances. (See Section 3-210).
4. Standard Stopping Sight Distance (SSD) shall apply unless otherwise approved by the Engineer (See Section 3-211).
5. Standard Entering Sight Distance (ESD) shall apply at intersections and driveways unless otherwise approved by the Engineer (See Section 3-212).
6. Criteria for state and federal funding may require greater width. For guardrail installations, shoulders shall be two feet wider.

3-202 Residential Access Streets

See Standard Pland No 3-202-001 through 3-202-004

CLASSIFICATION	NEIGHBORHOOD COLLECTORS	LOCAL ACCESS STREETS	LOCAL ACCESS STREETS	PRIVATE ROADS (RESIDENTIAL) (13)
Land Use Area				
Serving Potential Number of Single-Family Dwelling Units	300 Max.	100 Max.	9 Max.	1 to 4 total lots and 2 to 8 total Units
CRITERIA				
A. Typical Road Type	Curb & Gutter	Curb & Gutter	Curb & Gutter	Shoulder
B. Design Speed (MPH) [5]	30	25	25	20
C. Horizontal Curvature Min. Radius (Ft.) [12]	300	165	165	90
D. Max. Grade [6]	12	15	15	15
E. Standard Stopping Sight Distance (Ft.) [7]	200	155 ft.	155	115
F. Standard Entering Sight Distance (Ft.) [8]	250	200	200	150
G. Pavement Width (Ft.)	36	28	24	Varies (See Std. Plan 3-202-004)
H. Right-of-way Width (Ft.)	60	50	40	Varies (See Std. Plan 3-202-04)
I. Corner Radii	See Section 3-209	See Section 3-209	See Section 3-209	See Section 3-209
J. Min. Half St. Paved Width (Ft.)	20	20	None	None

NOTES:

1. Within the above parameters, geometric design for specific streets shall be consistent with AASHTO Policy on Geometric Design of Highways and Streets.
2. See Section 3-213 for one-way loops.
3. See Section 3-215 for residential access connection requirements.
4. See Section 3-216 for urban exception criteria.
5. Design speed is a basis for determining geometric elements and does not imply posted or legally permissible speed.
6. Maximum grade may be exceeded for short distances. (See Section 3-210).
7. Standard Stopping Sight Distance (SSD) shall apply unless otherwise approved by the Engineer. (See Section 3-211).
8. Standard Entering Sight Distance (ESD) shall be determined at intersections and driveways unless otherwise approved by the Engineer (See Section 3-212).
11. For guardrail installation, shoulders shall be two feet wider.
12. For Local Access Streets only an elbow intersection may be constructed in accordance with standard plan 3-209-002
13. Private roads are only permitted in Short Subdivisions with 4 or less total development lots.

3-203 Commercial Access Streets[1]

CLASSIFICATION	MIXED USE DISTRICT ACCESS STREETS	BUSINESS ACCESS STREETS	INDUSTRIAL ACCESS STREETS
CRITERIA			
A. Typical Road Type	Curb & Gutter	Curb & Gutter	Curb & Gutter
B. Design Speed (MPH) [3]	35	35	35
C. Horizontal Curvature Min. Radius (Ft.) [3]	See Table 3-2.1	See Table 3-2.1	See Table 3-2.1
D. Maximum Grade (%) [4]	12	12	11
E. Standard Stopping Sight Distance (Ft). [5]	See Table 3-2.1	See Table 3-2.1	See Table 3-2.1
F. Standard Entering Sight Distance (Ft.) [6]	See Table 3-2.1	See Table 3-2.1	See Table 3-2.1
G. Right-of-Way Width (Ft.)[8]	50-70	50-70	50
H. Min. Half Street Paved Width (Ft.)	20	20	20
I. Min. one-way Paved Width (Ft.)	20	22	24

NOTES:

1. See standard plan 3-201-003, 3-201-004 and 3-203-001
2. "Commercial Access Streets" serve multiple dwelling, business, and industrial developments. Within the above parameters, geometric design requirements shall be determined for specific streets consistent with the WSDOT Design Manual.
3. Design speed is a basis for determining geometric elements and does not imply posted or legally permissible speed. Curves shall be designed within parameters of section 3-204).
4. Maximum grade may be exceeded for short distances (See Section 3-210).
5. Standard Stopping Sight Distance (SSD) shall apply unless otherwise approved by the Engineer. (See Section 3-211).
6. Standard Entering Sight Distance (ESD) shall apply at intersections and driveways unless otherwise approved by the Engineer. (See Section 3-212).
7. For guardrail installations, shoulders shall be two feet wider.
8. Right-of-Way width varies based on roads classified with bike lanes and or planter strips.

3-204 Arterial Horizontal Curvature and Sight Distance Design Values

The design values shown in Tables 3-2.1 are minimum values necessary to meet the requirements of Sections 3-201 and 3-203 for a selected design speed and road classification. Superelevation on horizontal curves shall not be used unless approved by the Public Works Director or designee.

Table 3-2.1

Arterial Streets and Commercial Access Streets
Design Values

Design Speed (mph)	30	35	40
Horizontal Curvature (Ft.)	300	454	667
Stopping Sight Distance (Ft.)	200	250	305
Entering Sight Distance (Ft.)	375	470	575
Passing Sight Distance (Ft.) for a 2-Lane Road	1,100	1,300	1,500

3-205 Private Streets

A. While community street requirements are usually best served by public streets, owned and maintained by the City, private streets may be appropriate for some local access streets. Usually these are minor access streets, either residential or commercial.

B. Private streets may be approved only when they are:

1. Permanently established by right-of-way, tract or easement providing legal access to each affected lot, dwelling unit, or business and sufficient to accommodate required improvements, to include provision for future use by adjacent property owners when applicable; and
2. Built to these Standards as set forth herein; Standard Plan 3-202-004; and
3. Accessible at all times for emergency and public service vehicle use; and
4. Not obstructing, or part of, the present or future public neighborhood circulation plan developed in the Marysville Comprehensive Plan.
5. Not going to result in land locking of present or future parcels; and
6. Not needed as public roads to meet the minimum road spacing requirements of these Standards; and
7. A private road maintenance agreement consistent with Appendix E has been approved, recorded, and verified with the City, which will provide for

maintenance of the private streets and associated parking areas by owners in the development.

8. At least one of the following conditions exists:
   a. The private street is located within a short subdivision that has a total of four (4) or fewer developed lots and in the case of duplexes eight (8) or fewer total units.
   b. The roadways serve commercial or industrial facilities where no circulation continuity is necessary.
   c. The Public Works Director or designee and Fire Marshal determines that no other access is available and the private road is adequate.
9. Maintained by a capable and legally responsible owner or homeowners' association or other legal entity made up of all benefited property owners; and
10. Clearly described on the face of the plat, short plat, or other development authorization and clearly signed at street location as a private street, for the maintenance of which City of Marysville is not responsible.

C. The City of Marysville will not accept private streets for maintenance as public streets until such streets are brought into conformance with current City road standards.

D. The City of Marysville will not accept private streets within short plats when the roads providing access to the short plat are private and already have the potential to serve more than the number of lots specified in Section 3-202. Short plats proposed on properties to which the access is over private streets that do not meet the standards in this section shall be denied.

E. Private access shall conform to Standard Plan 3-202-004 for private roads and access easements subject to:
   1. A maximum of four (4)total lots or in the case of duplexes (8) total units are in the development.
   2. Minimum tract width of 20 feet for up to one (1) lot or two (2) units, and 30 feet for two (2) to four (4) lots or four (4) to eight (8) units.
   3. Access road length shall not exceed 300 feet and shall not extend from any portion of a public cul-de-sac.
   4. Private roads exceeding 150' shall construct a turn-a-round consistent with Standard Plan 3-207-004.

3-206 Half Streets

See Standard Plans 3-206-001.

A. A half street may be permitted as an interim facility when:
   1. Such street shall not serve as primary access to more than 25 dwelling units or tax lots for residential or 240 ADT for commercial/industrial; and
   2. Such alignment is consistent with or will establish a reasonable circulation pattern; and
   3. There is reasonable assurance of obtaining the prescribed additional right-of-way from the adjoining property with topography suitable for completion of a full-section road.
   4. To provide access to an existing Standard City Street.

B. A half street shall meet the following requirements:
   1. Right-of-way width of the half street shall equal at least 30 feet; and
   2. If feasible the half street shall be graded consistent with locating centerline of the ultimate road section on the property line; and
   3. Traveled way shall be surfaced the same as the designated road type to a width not less than 20 feet, sidewalk shall be constructed as required for the designated road type; and
   4. Property line edge of street shall be finished with temporary curbing, shoulders, ditches, and/or side slopes so as to assure proper drainage, bank stability, and traffic safety; and
   5. Half streets shall not intersect other half streets unless so approved by the Public Works Director or designee.

C. When a half street is eventually completed to a whole street, the completing builder shall reconstruct the original half street as necessary to produce a proper full-width street of designated section.

D. The obtaining of any right-of-way or easements needed to accomplish the above shall be the responsibility of the owning builder or developer.

3-207 Cul-de-sacs and Eyebrows

See standard plans 3-207-001 through 3-207-003.

A. Whenever a dead end public street serves 5 or more lots or a private/public road extends more than 150 feet from edge of the intersecting right of way to farthest extent of the road an approved turn-a-round shall be constructed as follows:
   1. Minimum right-of-way diameter across bulb section: 100 feet in a permanent cul-de-sac for all public roads; and 84 feet in a temporary cul-de-sac, with bulb

area lying outside straight-street right-of-way provided as temporary easement pending forward extension of the street.

2, Minimum diameter of surfacing across bulb: 80 feet of paving in curb, gutter, and sidewalk roadway section; 80 feet total in shoulder type or thickened edge cul-de-sacs to include 64 feet of paving and eight-foot shoulders with compacted crushed surfacing material. See Standard Plan 3-207-001.

3. Private roads shall construct a turn-a-round consistent with Standard Plan 3-207-004.

B. A permanent cul-de-sac shall not be longer than 600 feet measured from the edge of intersecting street right of way to the geometric center monument of the cul-de-sac. The Public Works Director or designee based on pertinent traffic planning factors such as topography; sensitive areas and existing development will consider exceptions to this rule.

C. The Public Works Director or designee may require an emergency vehicle access to connect a cul-de-sac at its terminus with other streets.

D. If a temporarily cul-de-sac exists, removal of the temporary cul-de-sac, re-grading/restoration of disturbed area, and extension of the sidewalk shall be the responsibility of the developer who extends the road. See Standard Plan 3-207-002.

E. The maximum cross slope in a bulb shall not exceed 6 percent. Partial bulbs or eyebrows shall have a minimum paved radius and an island configuration as shown on Standard Plan 3-207-003. Island shall be offset two feet from edge of traveled way.

G. Pedestrian walkways shall be provided on all permanent cul-de-sacs to abutting property see Standard Plan 3-207-001.

3-208 Alleys

A. An alley is considered a public road. Requirements of Section 3-202, local access streets, for horizontal curvature and stopping sight distance, apply.

1. New alleys serve a maximum of 30 lots, with a maximum length of 400 feet, no dead ends or cul-de-sacs.

2. Minimum right-of-way width 20 feet with a pavement surface of 20 feet. For differing structure setback requirements, alley configuration shall be designated to provide for safe turning access to properties.

3. Paved surface shall be in accordance with Standard Plan 3-208-001.

4. Modifications to existing alleys serving commercial or industrial properties, in accordance with the above, will be determined on a case-by-case basis subject to approval by the Public Works Director or designee.
5. Additional right of way and/or pavement width for parking and/or pedestrian facilities may be require on a case-by-case basis as determined by the Public Works Director / Community Development Director or designee.
6. Existing substandard alleys are required to be improved to meet the current standards upon development / re-development of an adjoining parcel.

3-209 Intersections

A. Intersections

1.	Angle of intersection (measured at 10 feet beyond road classification right-of-way)	Minimum 85 degrees Maximum 95 degrees
2.	Minimum centerline radius (2-lane)	55 Feet
3.	Minimum curb radius	
	Local street intersecting local street	20 feet
	Local street intersecting neighborhood collector	25 feet
	Any street intersecting arterial	35 feet

*Truck route curb radius may be increased to 50 feet as determined by the Public Works Director or designee.

4.	Minimum right-of-way line radius or fillet	Varies

B. Spacing between adjacent intersecting streets, whether crossing or T-connecting, shall be as follows:

When highest classification involved is:	Minimum centerline offset shall be:
Principal arterial	1,000 Feet
Minor arterial	500 Feet
Collector arterial	300 Feet
Residential Access Streets	150 Feet

C. On sloping approaches at an intersection, landings shall be provided with grade not to exceed one-foot difference in elevation for a distance of 30 feet approaching an arterial or 20 feet approaching a residential or commercial street. The distance shall be measured from future right-of-way line (extended) of intersecting street. See Standard Plan 3-209-001.

D. Entering Sight Distance, See Sections 3-212 for design requirements.

E. Elbow Intersections per standard plan 3-209-002 are allowable on local access streets only and are subject to intersection spacing requirements established under this section.

3-210 Maximum Grade and Grade Transitions

A. Maximum grade as shown in Sections 3-201, 3-202, and 3-203 may be exceeded for short distances of 300 feet or less, upon showing that no practical alternative exists. Exceptions that exceed 15% will require approval by the Public Works Director or designee and the Fire Marshal. Grades exceeding 15 percent shall be paved with portland cement concrete (PCC).

B. Grade transitions shall be constructed as smooth vertical curves except in intersections where the difference in grade is one percent or less and upon approval of the Public Works Director or designee.

3-211 Stopping Sight Distance (SSD)

See Standard Plans 3-211-001 and 3-211-002

SSD applies to street classifications as shown in Sections 3-201, 3-202 and 3-203. See Tables 3-2.1 for specific SSD values for arterial streets based on required design speed.

A. Height of eye is 3.5 feet and height of object is 0.5 feet.

B. Minimum SSD for any downgrade averaging three percent or steeper as provided in Section 3-202 and section 3-204, Table 3-2.1 shall be as shown below (Source AASHTO Policy on Geometric Design, 2004, Exhibit 3-2)

SSD (FT)

DESIGN SPEED (MPH)	Downgrades			Upgrades		
	3 Percent	6 Percent	9 Percent	3 Percent	6 Percent	9 Percent
40	315	333	354	289	278	269
35	257	271	287	237	229	222
30	205	215	227	200	184	179
25	158	165	173	147	143	140
20	116	120	126	109	107	104

C. Sag vertical curves on neighborhood collectors and local access streets with stopping sight distance less than that called for in Section 3-202 may be approved by the Public Works Director or designee if no practical design exists and if road lighting consistent with current design standards is provided throughout the curve.

3-212 Entering Sight Distance (ESD)

See standard plan 3-212-001

Entering sight distance applies on driveways and on streets intersections as set forth in Sections 3-201, 3-202, and 3-203. Specific ESD values for required design speeds are listed in Section 3-204, Tables 3-2.1 for arterial streets and 3-202 for residential access streets.

A. Entering vehicle eye height is 3.5 feet, measured from 15 to 20 feet back from edge of face of curb or from the travel lane on a ditch section roadway. Approaching vehicle height is 4.25 feet. See standard plan 3-212-002.

B. Requirements in Section 3-204, Tables 3-2.1 and section 3-202 apply to an intersection or driveway approach to a typical road under average conditions. In difficult topography the Public Works Director or designee may authorize a reduction in the ESD based on factors mitigating the hazard. Such factors may include an anticipated posted or average running speed less than the design or posted speed or the provision of acceleration lanes and/or a median space allowing an intermediate stop by an approaching vehicle making a left turn.

C. Where a significant number of trucks will be using the approach road, the Public Works Director or designee may increase the entering sight distance requirements by up to 30 percent for single-unit trucks and 70 percent for semi-trailer combinations.

D. On low volume driveways, the ESD may be reduced by the Public Works Director or designee to the SSD per standard plan 3-212-002.

3-213 One-Way Streets

Local access streets, including loops, may be designated one-way upon a finding by the Public Works Director or designee that topography or other site features make two-way traffic impractical.

3-214 Intersections with State or Federal Highways

In the event that the City has jurisdiction over a development that requires the construction or improvement of a commercial/industrial driveway or any classification of street that intersects a county, state or federal highway, minimum intersection spacing, entering sight distance and landing requirements in accordance with these Standards shall be satisfied in addition to the requirements of all other applicable permits. In the instance County, State, or Federal standards exceed these Standards, County, State, or Federal standards shall govern.

3-215 Residential Access and Circulation Requirements

In order to provide a second access to a residential subdivision, short subdivision, binding site plan or planned unit development, no residential street shall serve more than 100 lots or dwelling units unless the street is connected in at least two locations with another street that functions at a level consistent with Sections 3-201 and 3-202.

A. The second access requirement may be satisfied through use of connecting a new street to an existing street in an adjacent neighborhood if:

1. No other practical alternative exists, or
2. Existing street was previously stubbed indicating intent for future access, or

The second access requirement may not be satisfied through use of an existing road way network in the existing adjacent neighborhood if:

1. A more practical alternative exists, or
2. Existing streets do not meet Section 3-202, or
3. A portion of the existing roadway network providing secondary access consists of a private road.

These provisions are not intended to preclude the state statute on land locking.

B. This section does not preclude a multi-family or commercial project from gaining access through a residential development. Traffic impacts for such projects will be analyzed during the SEPA process.

3-216 Exception for Maximum Dwelling Units on Neighborhood Collector

Proposed neighborhood collectors serving developments with an average density of seven to eight dwelling units per acre and which meet the access requirements of Section 3-215 may serve up to 300 single family dwelling units, if approved by the Public Works Director or designee. Prior to approval, the Public Works Director or designee may require a traffic circulation study showing a balanced traffic flow of less than 1500 vehicles per day past any access point. Street trees shall be mandatory along neighborhood collectors serving higher densities of eight to eighteen dwelling units per acre and shall be in conformance with Section 3-504.

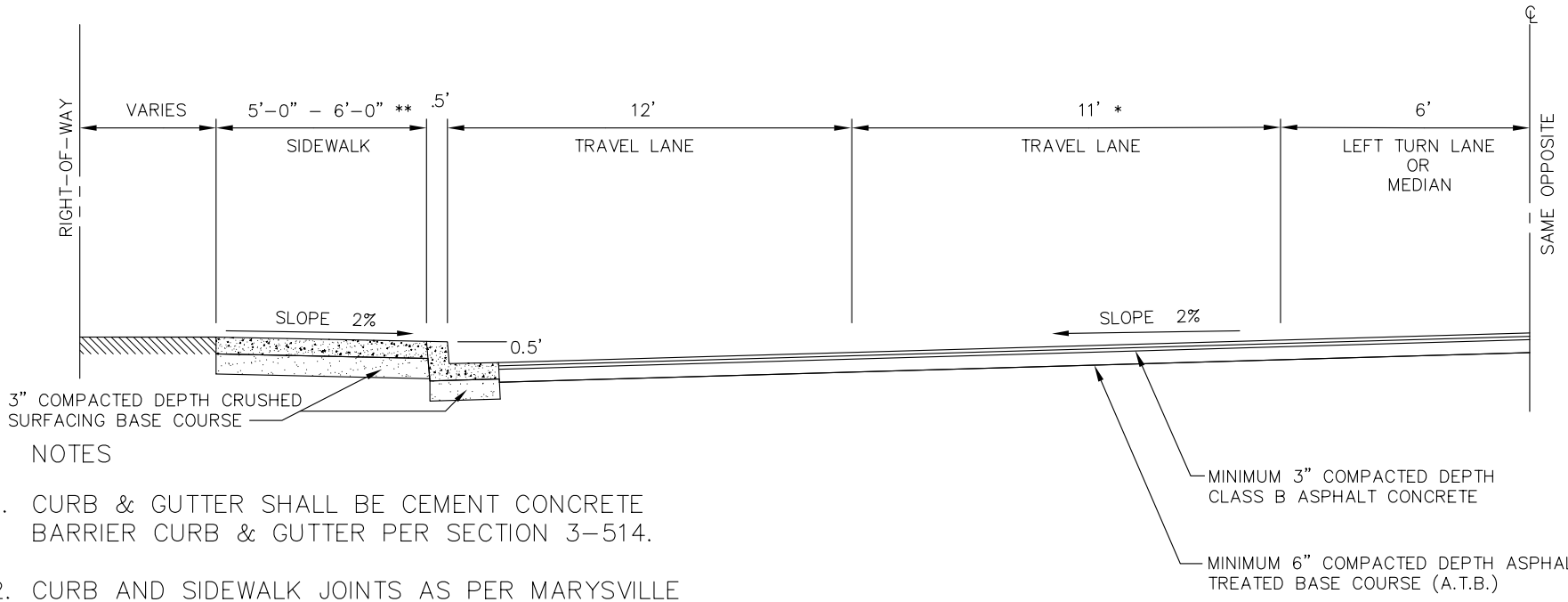
3-217 Channelization Plan

The Public Works Director or designee shall approve a channelization and signing plan. The plan shall comply with the current version of the MUTCD and section 3-406.

3-218 PRD Access Streets

PRD Access Streets shall only be used as permitted by the Marysville Municipal Code Chapter 19.48 (Planned Residential Developments) and per Standard Plans 3-218-001 & 3-218-002. Private Roads per standard plan 3-202-004 may only be used in special circumstances as determined by the City Engineer/Community Development Director or designee.

PRD Access Streets may be required to increase travel lane width, curb return radius and/or include left turn pockets at intersections as determined by the City Engineer or designee.



NOTES

1. CURB & GUTTER SHALL BE CEMENT CONCRETE BARRIER CURB & GUTTER PER SECTION 3-514.
2. CURB AND SIDEWALK JOINTS AS PER MARYSVILLE SECTION 3-515.
3. REFER TO SECTION 3-303 FOR DRIVEWAY DETAILS.
4. CURB RAMP DETAILS AS PER SECTION 3-516.
5. THIS DRAWING ILLUSTRATES A MINIMUM ASPHALT CONCRETE ROAD SECTION. ACTUAL SURFACING DESIGN FOR ARTERIALS AND COMMERCIAL ACCESS STREETS SHALL BE BASED ON SOILS AND TRAFFIC ANALYSIS.
6. ARTERIAL STREETS DESIGNATED AS A STREETSCAPE ROUTE SHALL PROVIDE PLANTER STRIP. SEE APPENDIX B.
7. A MINIMUM SEVEN FOOT SIDEWALK SHALL BE USED IN THE DOWNTOWN CENTRAL BUSINESS DISTRICT.
8. THE RIGHT-OF-WAY WIDTH SHALL BE WIDENED AN ADDITIONAL 5 FT MIN FOR PLACEMENT OF FIRE HYDRANTS AND MAILBOX CLUSTERS.
9. DRAINAGE REQUIRED BEHIND WALK IN CUT AREAS.

* SEE APPENDIX B FOR NUMBER OF LANES AND RIGHT-OF-WAY WIDTHS

** 6'-0" ADJACENT TO CURB, 5'-0" ADJACENT TO PLANTER STRIP

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

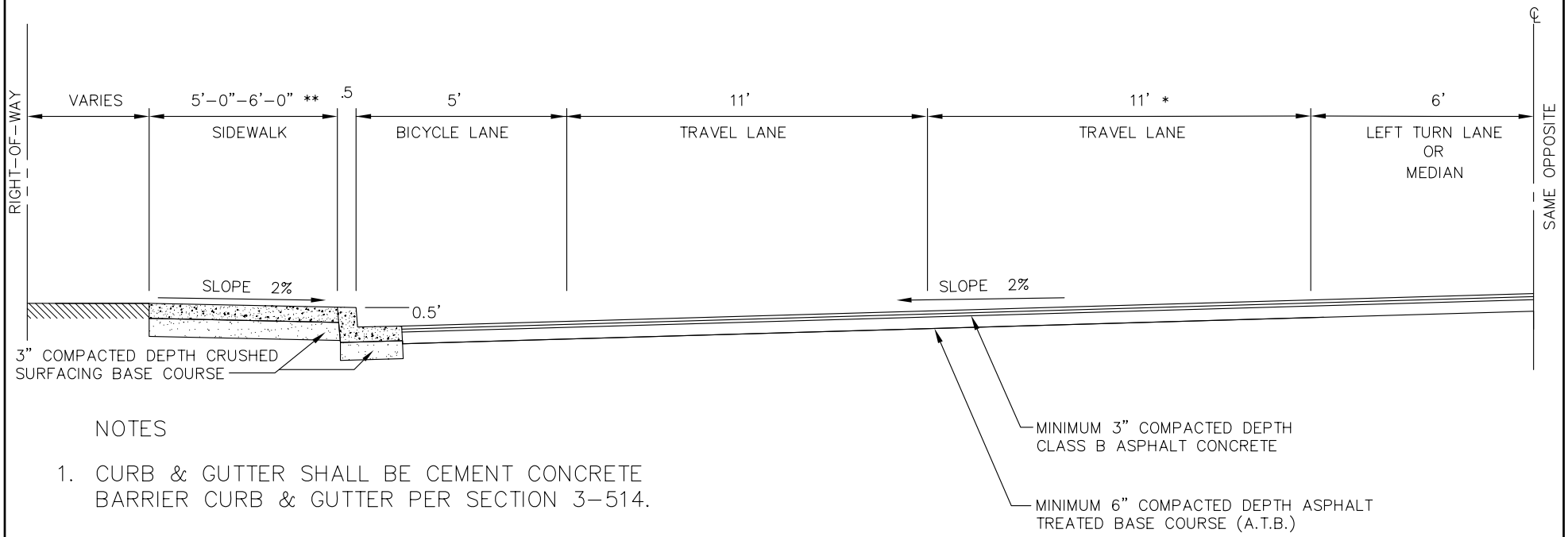
CITY OF Marysville WASHINGTON

PRINCIPAL & MINOR ARTERIAL

COMBINED CURB, GUTTER & SIDEWALK

STANDARD PLAN 3-201-001

LAST REVISED 10/04/06



NOTES

1. CURB & GUTTER SHALL BE CEMENT CONCRETE BARRIER CURB & GUTTER PER SECTION 3-514.
2. CURB AND SIDEWALK JOINTS AS PER MARYSVILLE SECTION 3-515.
3. REFER TO SECTION 3-303 FOR DRIVEWAY DETAILS.
4. CURB RAMP DETAILS AS PER SECTION 3-516.
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9. DRAINAGE REQUIRED BEHIND WALK IN CUT AREAS

* SEE APPENDIX B FOR NUMBER OF LANES AND RIGHT-OF-WAY WIDTHS

** 6'-0" ADJACENT TO CURB, 5'-0" ADJACENT TO PLANTER STRIP

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

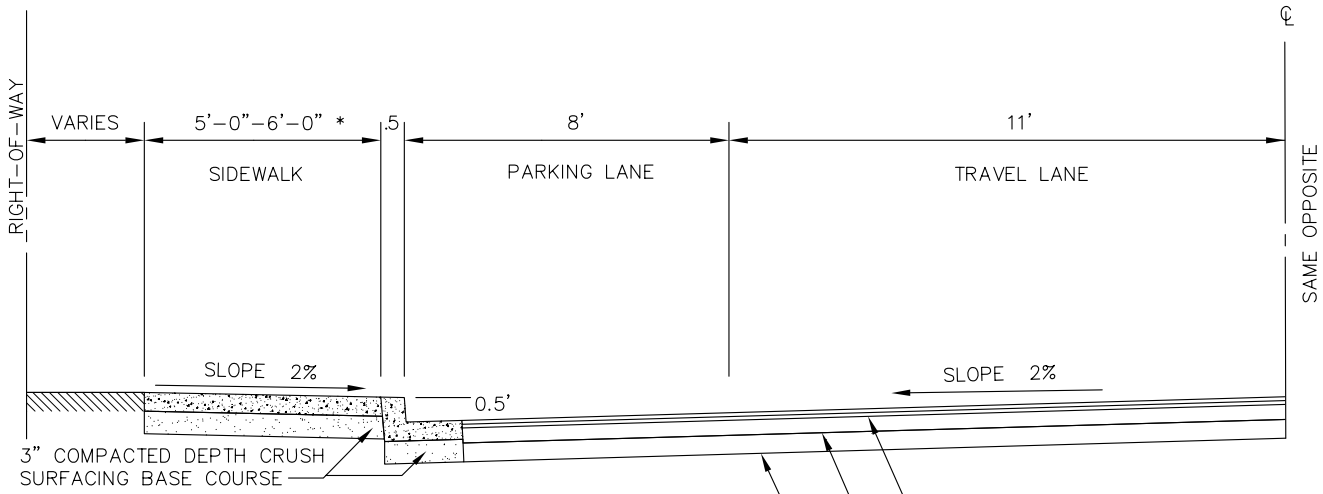
CITY OF Marysville WASHINGTON

PRINCIPAL & MINOR ARTERIAL

BICYCLE CONFIGURATION

LAST REVISED 10/03/06

STANDARD PLAN 3-201-002



NOTES

1. CURB & GUTTER SHALL BE CEMENT CONCRETE BARRIER CURB & GUTTER PER SECTION 3-514.
2. CURB AND SIDEWALK JOINTS AS PER MARYSVILLE SECTION 3-515.
3. REFER TO SECTION 3-303 FOR DRIVEWAY DETAILS.
4. CURB RAMP DETAILS AS PER SECTION 3-516.
5. THIS DRAWING ILLUSTRATES A MINIMUM ASPHALT CONCRETE ROAD SECTION. ACTUAL SURFACING DESIGN FOR ARTERIALS AND COMMERCIAL ACCESS STREETS SHALL BE BASED ON SOILS AND TRAFFIC ANALYSIS.
6. A 12' TRAVEL LANE AND ADDITIONAL RIGHT OF WAY MAY BE REQUIRED AS DETERMINED BY THE CITY ENGINEER
7. A COMMERCIAL AND INDUSTRIAL ACCESS APPLICATION MAY REQUIRE A SEVEN FOOT SIDEWALK SECTION.
8. THE RIGHT-OF-WAY WIDTH SHALL BE WIDENED AN ADDITIONAL 5 FT MIN FOR PLACEMENT OF FIRE HYDRANTS AND MAILBOX CLUSTERS.
9. DRAINAGE REQUIRED BEHIND WALK IN CUT AREAS.

* 6'-0" ADJACENT CURB, 5'-0" ADJACENT TO PLANTER STRIP

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

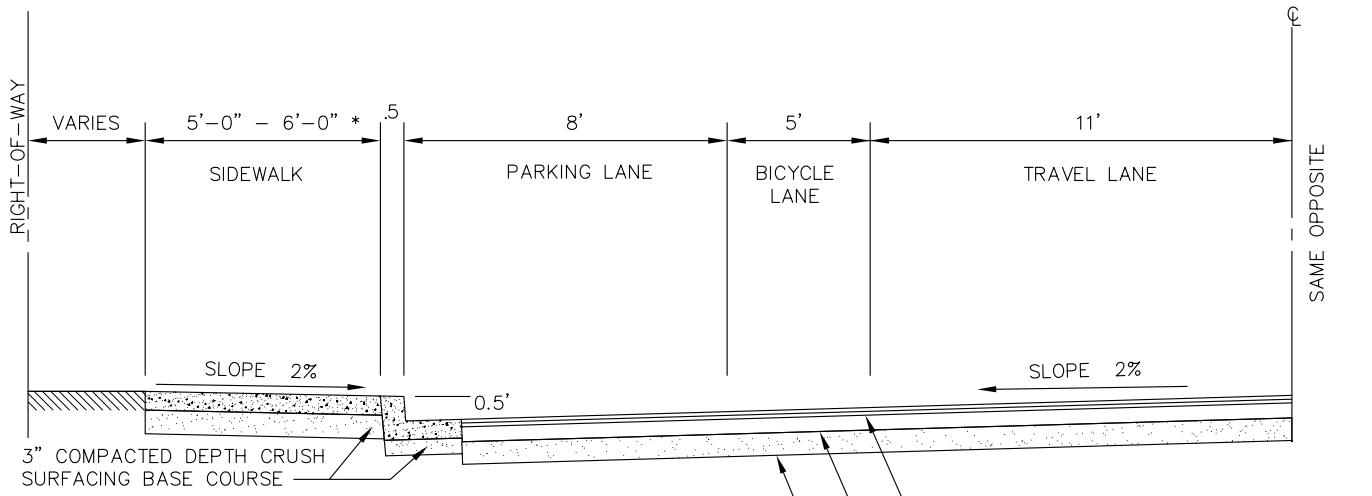
CITY OF Marysville WASHINGTON

COLLECTOR ARTERIAL/ COMMERCIAL ACCESS STREET

COMBINED CURB, GUTTER & SIDEWALK

STANDARD PLAN 3-201-003

LAST REVISED 02/13/07



NOTES

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2. CURB AND SIDEWALK JOINTS AS PER MARYSVILLE SECTION 3-515.
3. REFER TO SECTION 3-303 FOR DRIVEWAY DETAILS.
4. CURB RAMP DETAILS AS PER SECTION 3-516.
5. THIS DRAWING ILLUSTRATES A MINIMUM ASPHALT CONCRETE ROAD SECTION. ACTUAL SURFACING DESIGN FOR ARTERIALS AND COMMERCIAL ACCESS STREETS SHALL BE BASED ON SOILS AND TRAFFIC ANALYSIS PER SECTION 3-402.
6. A 12' TRAVEL LANE AND ADDITIONAL RIGHT OF WAY MAY BE REQUIRED AS DETERMINED BY THE CITY ENGINEER.
7. A COMMERCIAL AND INDUSTRIAL ACCESS APPLICATION MAY REQUIRE A SEVEN FOOT SIDEWALK SECTION.
8. THE RIGHT-OF-WAY WIDTH SHALL BE WIDENED AN ADDITIONAL 5 FT MIN FOR PLACEMENT OF FIRE HYDRANTS AND MAILBOX CLUSTERS.
9. DRAINAGE REQUIRED BEHIND WALK IN CUT AREAS.

* 6'-0" ADJACENT TO CURB, 5'-0" ADJACENT TO PLANTER STRIP

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

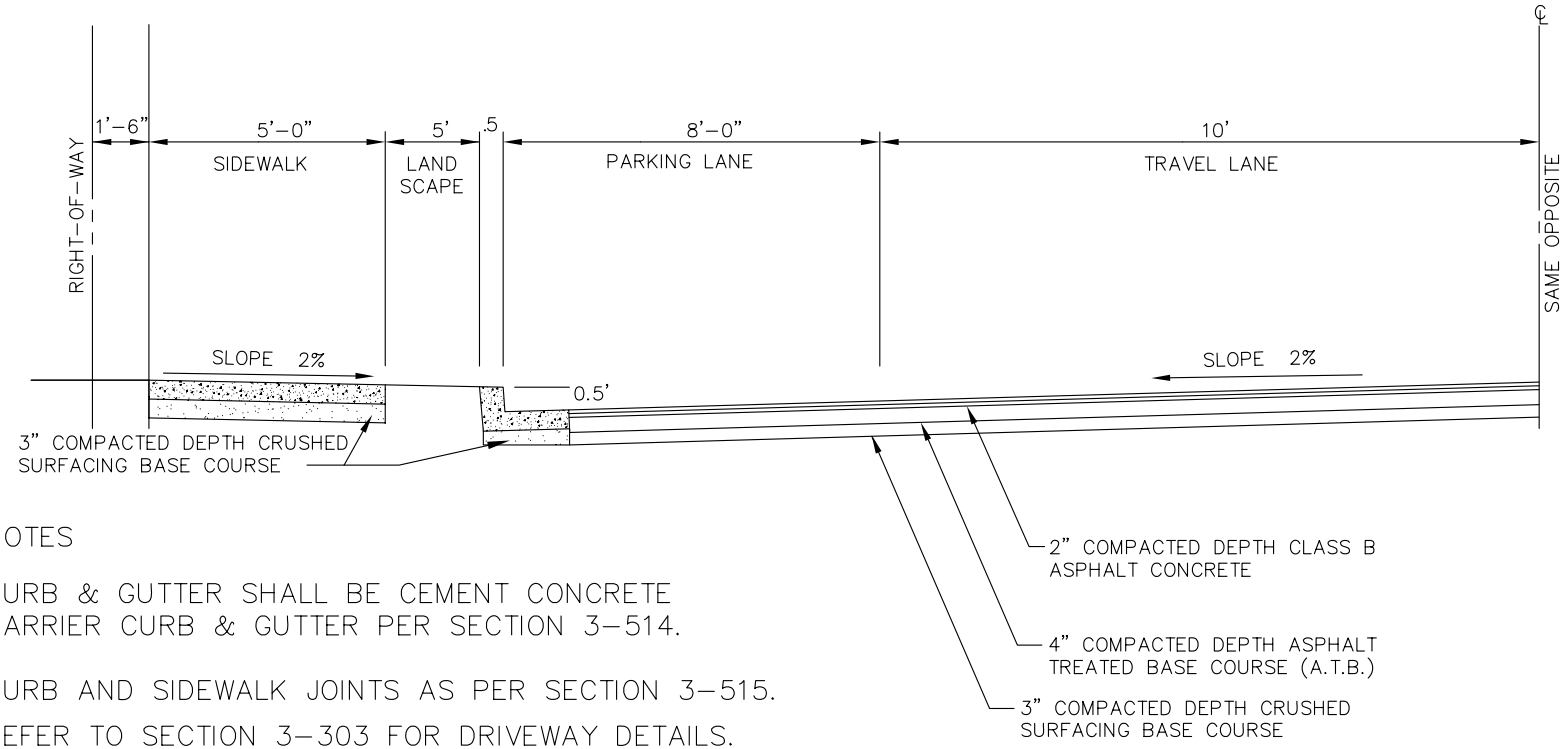
CITY OF Marysville WASHINGTON

COLLECTOR ARTERIAL/ COMMERCIAL ACCESS STREET

BICYCLE CONFIGURATION

STANDARD PLAN 3-201-004

LAST REVISED 10/18/06



NOTES

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6. THIS DRAWING ILLUSTRATES A MINIMUM ASPHALT CONCRETE ROAD SECTION. DESIGN FOR RESIDENTIAL ACCESS STREETS SHALL BE IN ACCORDANCE WITH SECS. 3–401 AND 3–402. ADDITIONAL SUBGRADE TREATMENT MAY BE REQUIRED DEPENDING ON SOIL CONDITIONS.
7. THE RIGHT–OF–WAY WIDTH SHALL BE WIDENED AN ADDITIONAL 5 FT MIN FOR PLACEMENT OF FIRE HYDRANT AND MAILBOX CLUSTER INSTALLATION.
8. DRAINAGE REQUIRED BEHIND WALK IN CUT AREAS.

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

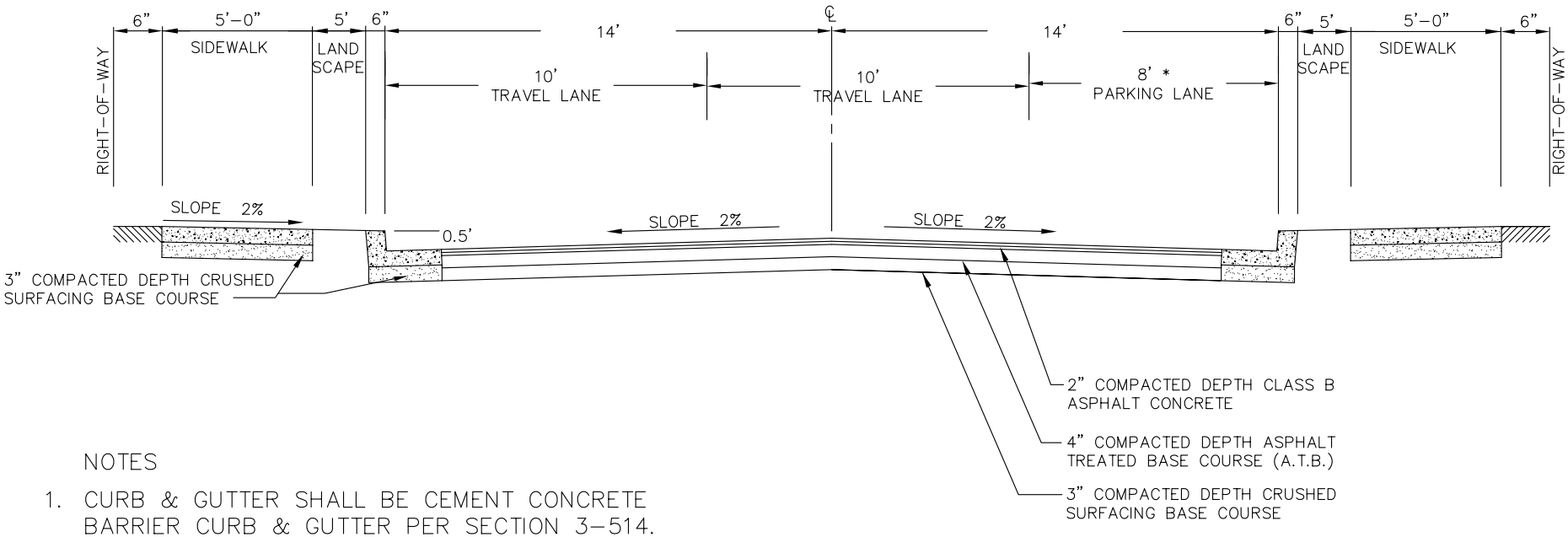
CITY OF Marysville WASHINGTON

NEIGHBORHOOD COLLECTOR
60' RIGHT–OF–WAY

COMBINED CURB, GUTTER & SIDEWALK

STANDARD PLAN 3–202–001

LAST REVISED 10/03/06



NOTES

1. CURB & GUTTER SHALL BE CEMENT CONCRETE BARRIER CURB & GUTTER PER SECTION 3-514.
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6. THE RIGHT-OF-WAY WIDTH SHALL BE WIDENED AN ADDITIONAL 5 FEET FOR FIRE HYDRANTS AND MAILBOX CLUSTERS.
7. DRAINAGE REQUIRED BEHIND WALK IN CUT AREAS.

* PARKING ON ONE SIDE ONLY ALTERNATE EVERY 300 FEET AS APPROVED BY THE CITY ENGINEER

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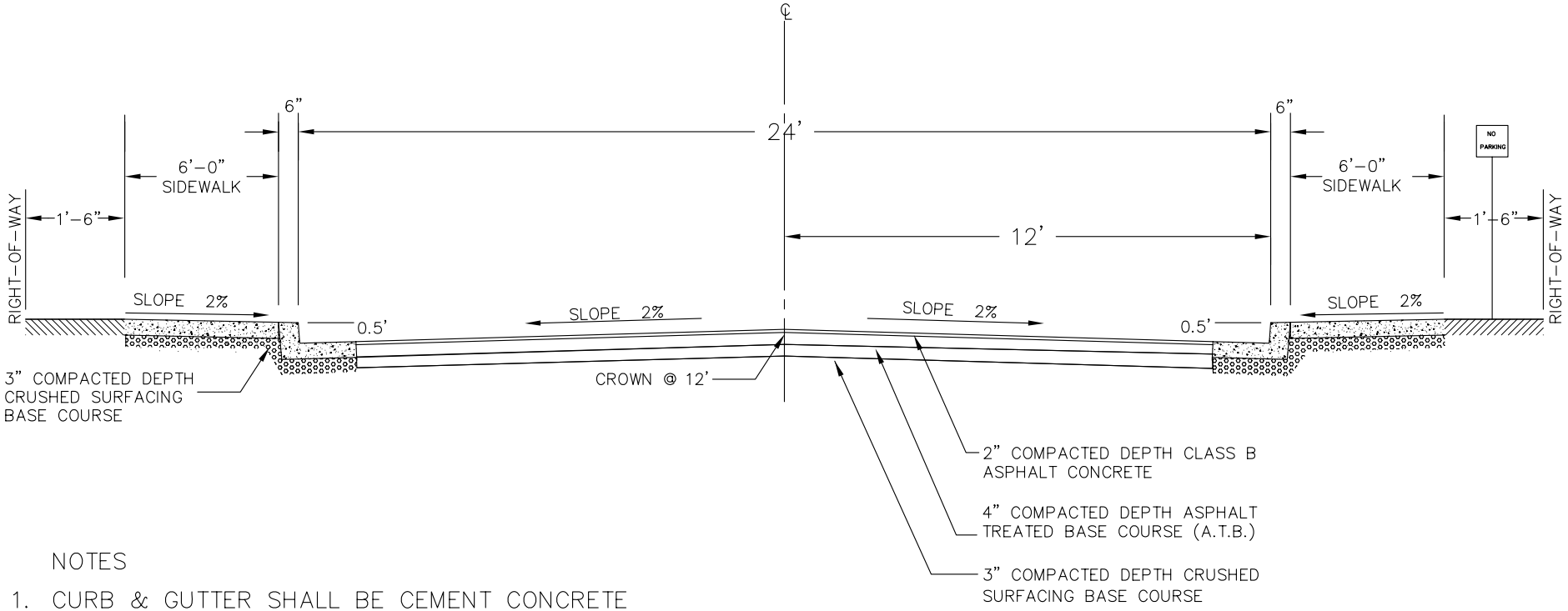
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

LOCAL ACCESS STREET
50' RIGHT-OF-WAY
COMBINED CURB, GUTTER & SIDEWALK

STANDARD PLAN 3-202-002

LAST REVISED 10/06/06



NOTES

1. CURB & GUTTER SHALL BE CEMENT CONCRETE BARRIER CURB & GUTTER PER SECTION 3–514.
2. CURB AND SIDEWALK JOINTS AS PER SECTION 3–515.
3. REFER TO SECTION 3–303 FOR DRIVEWAY DETAILS.
4. CURB RAMP DETAILS AS PER SECTION 3–516.
5. THIS DRAWING ILLUSTRATES A MINIMUM ASPHALT CONCRETE ROAD SECTION. DESIGN FOR RESIDENTIAL ACCESS STREETS SHALL BE IN ACCORDANCE WITH SECS. 3–401 AND 3–402. ADDITIONAL SUBGRADE TREATMENT MAY BE REQUIRED DEPENDING ON SOIL CONDITIONS.
6. THE RIGHT–OF–WAY WIDTH SHALL BE WIDENED AN ADDITIONAL 5 FEET FOR FIRE HYDRANTS AND MAILBOX CLUSTERS.
7. DRAINAGE REQUIRED BEHIND WALK IN CUT AREAS.

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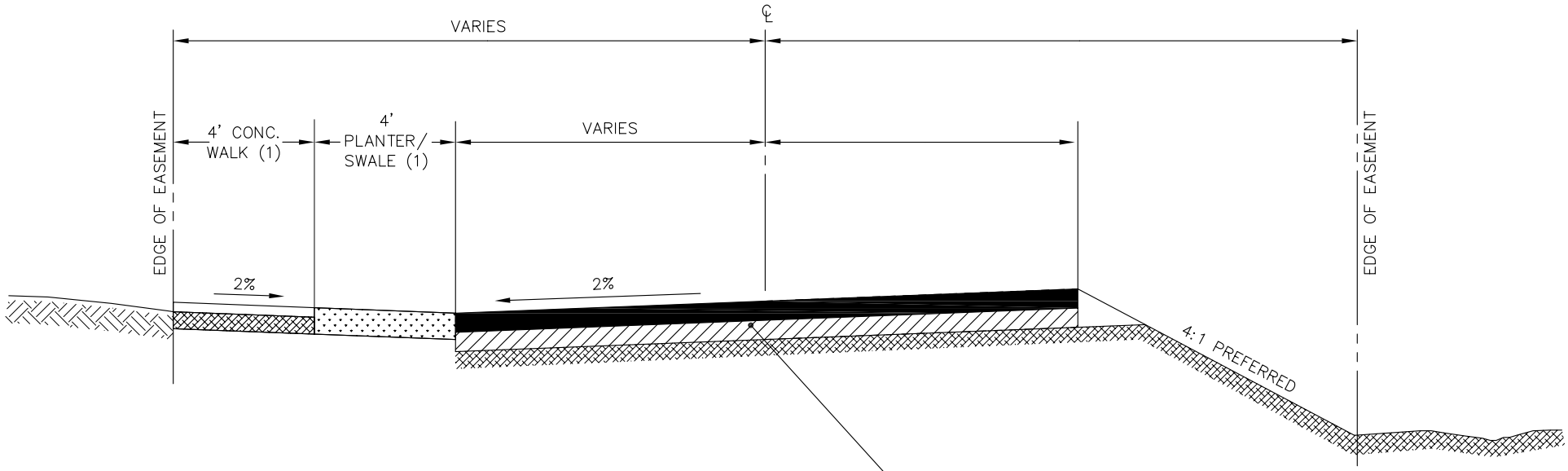
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

LOCAL ACCESS STREET
40' RIGHT–OF–WAY
COMBINED CURB, GUTTER & SIDEWALK

STANDARD PLAN 3–202–003

LAST REVISED 9/14/06



DWELLING UNITS	MINIMUM EASEMENT WIDTH	PAVEMENT SURFACE WIDTH
1 LOT OR DUPLEX	20'	12'
2 TO 4 LOTS 4 TO 8 UNITS	30'	20'

MINIMUM SURFACE REQUIREMENTS
2" COMPACTED DEPTH CLASS B ASPHALT
4" COMPACTED DEPTH ASPHALT TREATED BASE
3" COMPACTED DEPTH CRUSHED SURFACING BASE COURSE

1. 2 OR MORE LOTS OR 4 OR MORE UNITS REQUIRE A DETACHED 4' CONCRETE WALK SEPERATED BY A 4' PLANTER STRIP.
2. NO ON STREET PARKING SHALL BE PERMITTED WHICH SHALL BE INDICATED BY NO PARKING SIGNS POSTED ON BOTH SIDES OF THE PRIVATE ROAD.
3. ALL PRIVATE ROADS SHALL BE SIGNED "PRIVATE ROAD."

APPROVED BY

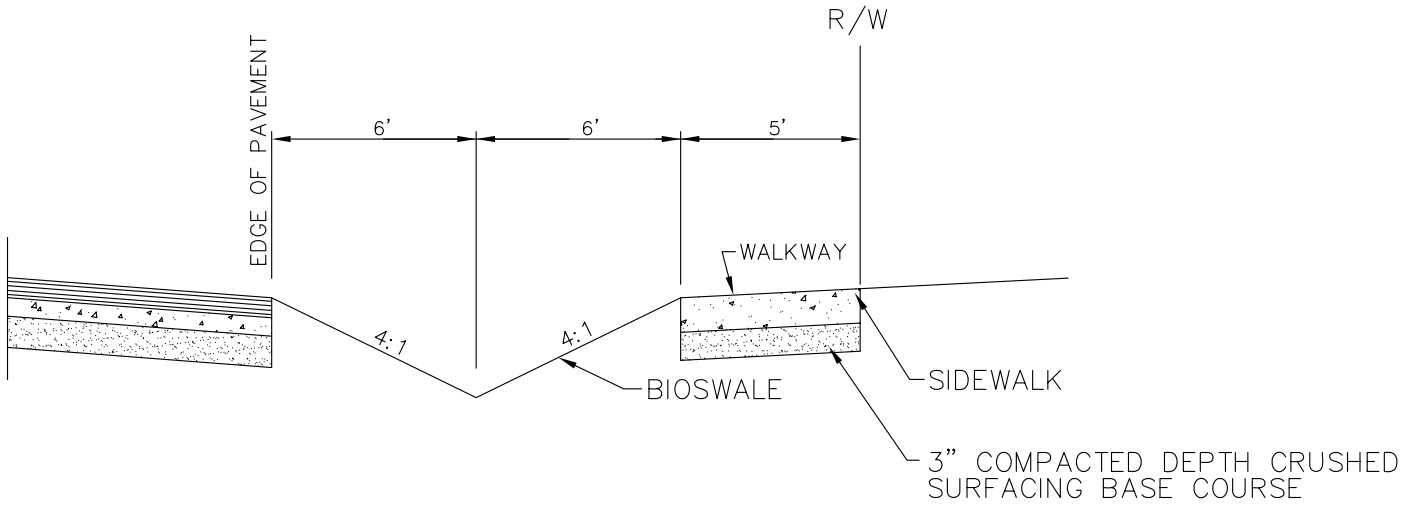
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

TYPICAL SECTION
PRIVATE ROAD/ ACCESS EASEMENT

LAST REVISED 04/17/07

STANDARD PLAN 3-202-004



NOTES

1. BIOSWALE SHALL BE DESIGNED PER THE WASHINGTON STATE DEPARTMENT OF ECOLOGY REQUIREMENTS AND THE CITY OF MARYSVILLE DRAINAGE STANDARDS.

2. SEE APPLICABLE ROADWAY SECTION FOR PAVEMENT THICKNESSES. DESIGN OF THE ROADWAY SHALL BE IN ACCORDANCE WITH SECTIONS 3-401 AND 3-402. ADDITIONAL SUBGRADE TREATMENT MAY BE REQUIRED TREATMENT MAY BE REQUIRED DEPENDING ON SOIL CONDITIONS.

3. SEE SECTION 3-519 FOR SEPARATED WALKWAY

* USE OF THIS SECTION SHALL BE APPROVED BY THE PUBLIC WORKS DIRECTOR OR DESIGNEE

APPROVED BY

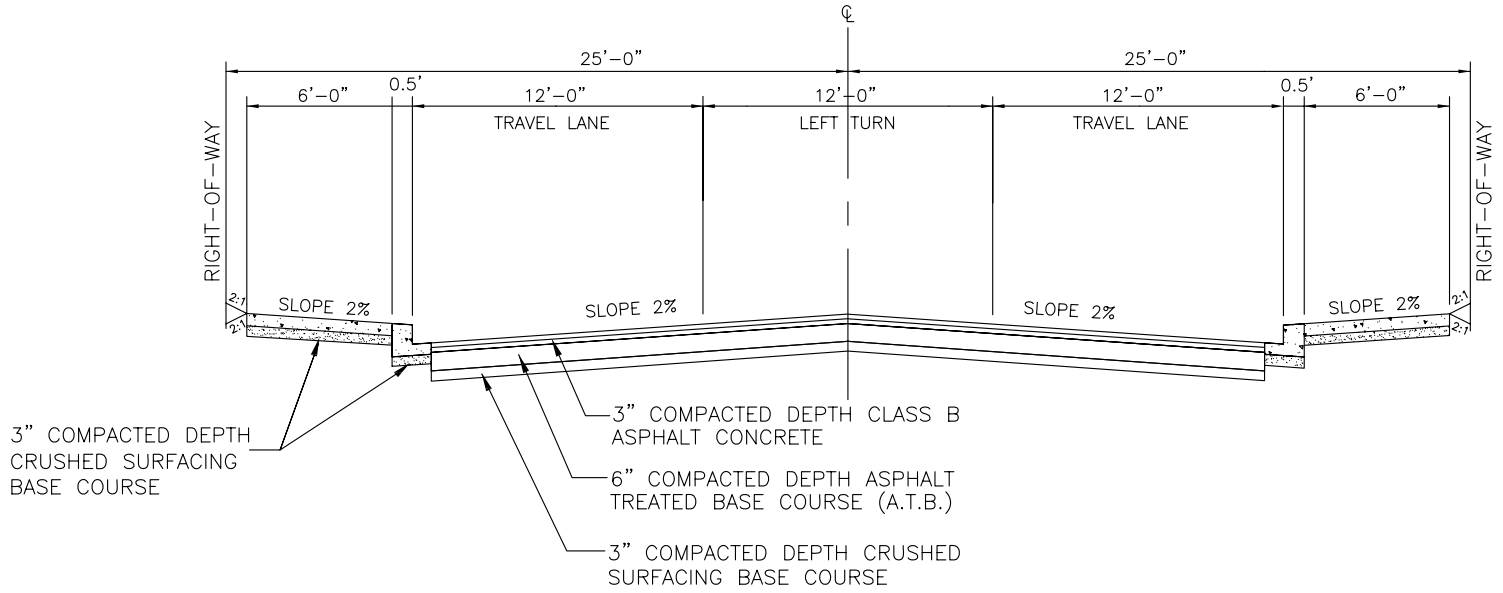
MARYSVILLE CITY ENGINEER DATE

ALTERNATE SHOULDER SECTION

CITY OF Marysville WASHINGTON

STANDARD PLAN 3-202-005

LAST REVISED 10/16/01



NOTES

1. CURB & GUTTER SHALL BE CEMENT CONCRETE BARRIER CURB & GUTTER PER SECTION 3–514.
2. CURB AND SIDEWALK JOINTS AS PER SECTION 3–515.
3. REFER TO SECTION 3–303 FOR DRIVEWAY DETAILS.
4. CURB RAMP DETAILS AS PER SECTION 3–516.
5. INDUSTRIAL ACCESS PAVEMENT THICKNESS SHALL BE DESIGNED TO ACCOMODATE TRUCK LOADING. THE CITY ENGINEER SHALL APPROVE DESIGN CALCULATIONS.
6. THE RIGHT–OF–WAY WIDTH SHALL BE WIDENED AND ADDDITIONAL 5 FEET FOR FIRE HYDRANTS AND MAILBOX CLUSTERS.

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MARYSVILLE CITY ENGINEER DATE

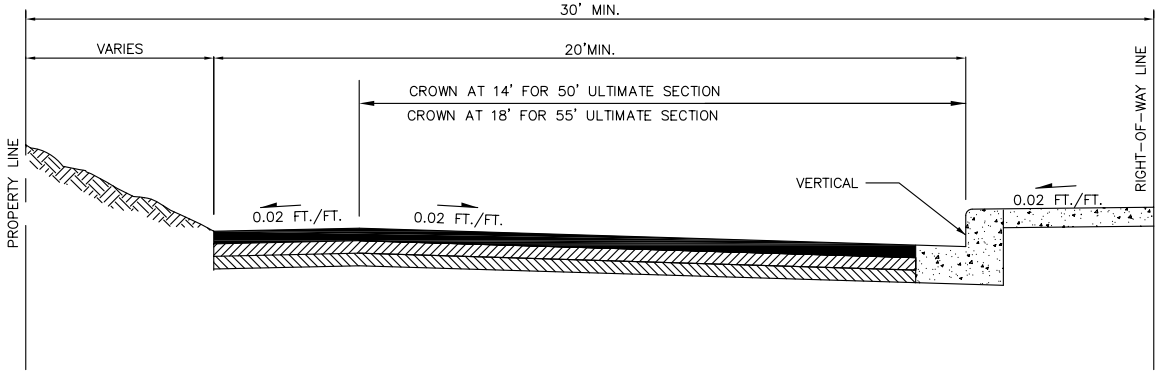
INDUSTRIAL ACCESS STREET

50' RIGHT–OF–WAY

CITY OF Marysville WASHINGTON

LAST REVISED 10/18/06

STANDARD PLAN 3–203–001



NOTE:

1. FOR ACTUAL ROADWAY SECTION SEE APPLICABLE STANDARD PLAN.

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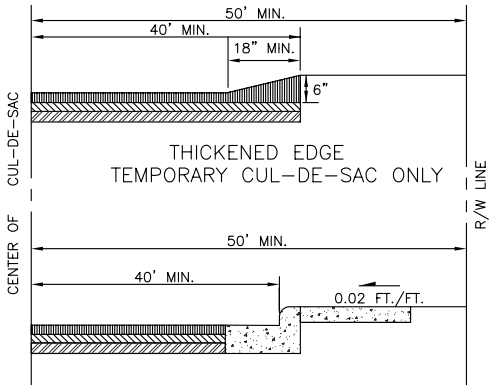
MARYSVILLE CITY ENGINEER DATE

HALF – STREET

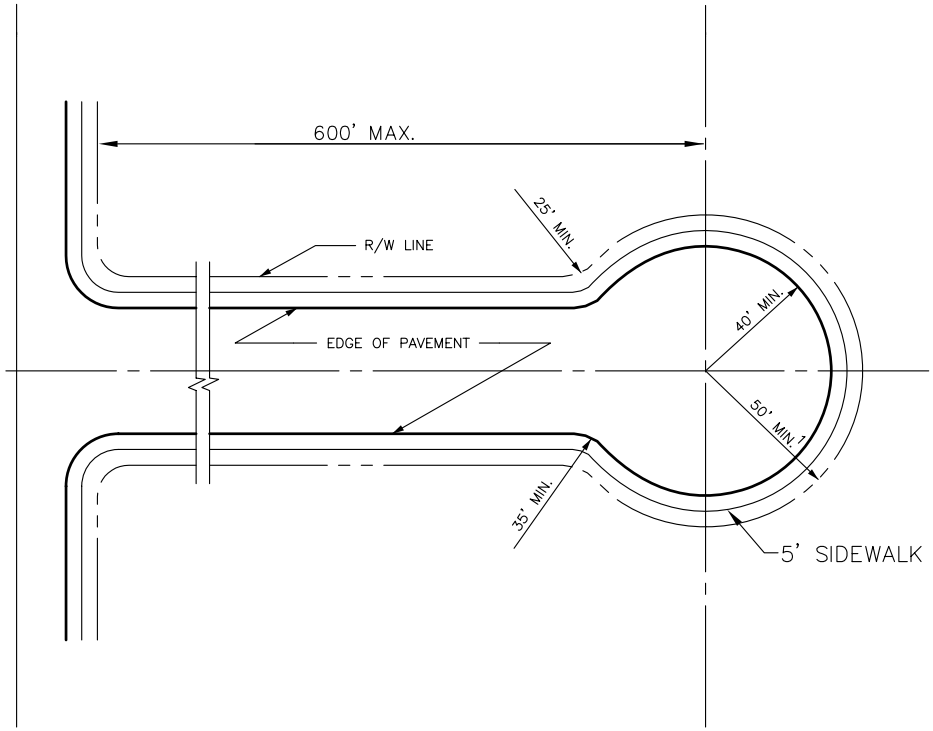
CITY OF Marysville WASHINGTON

LAST REVISED 10/12/01

STANDARD PLAN 3–206–001



VERTICAL CURB & GUTTER



NOTES:

1. ALL PERMANENT CUL-DE-SACS SHALL BE CONSTRUCTED WITH A VERTICAL CURB AND GUTTER SECTION.
2. SEE SECTION 3-207 FOR CUL-DE-SAC LENGTH EXCEPTION.
3. ROLLED CURB MAY BE ACCEPTED IN CUL-DE-SACS IN SPECIAL CIRCUMSTANCES REQUIRING CITY ENGINEER OR DESIGNEE APPROVAL.

APPROVED BY

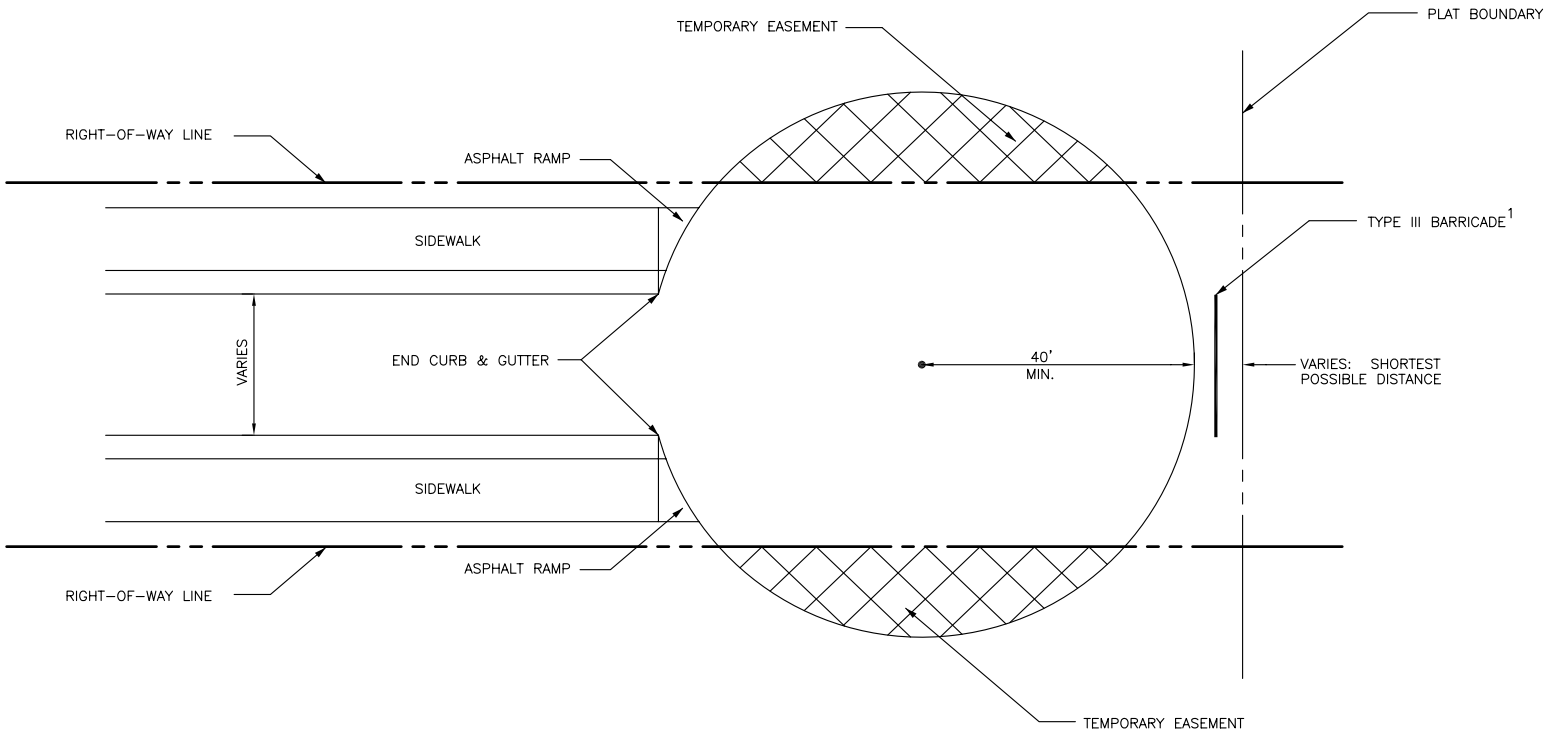
MARYSVILLE CITY ENGINEER DATE

CUL-DE-SAC DETAIL

CITY OF Marysville WASHINGTON

STANDARD PLAN 3-207-001

LAST REVISED 9/14/06



NOTES:

1. BARRICADE REQUIRED AT END OF BULB. SEE SECTION 3-508. BARRICADE SHALL HAVE 30"x36" SIGN STATING "FUTURE ROAD EXTENSION".

APPROVED BY

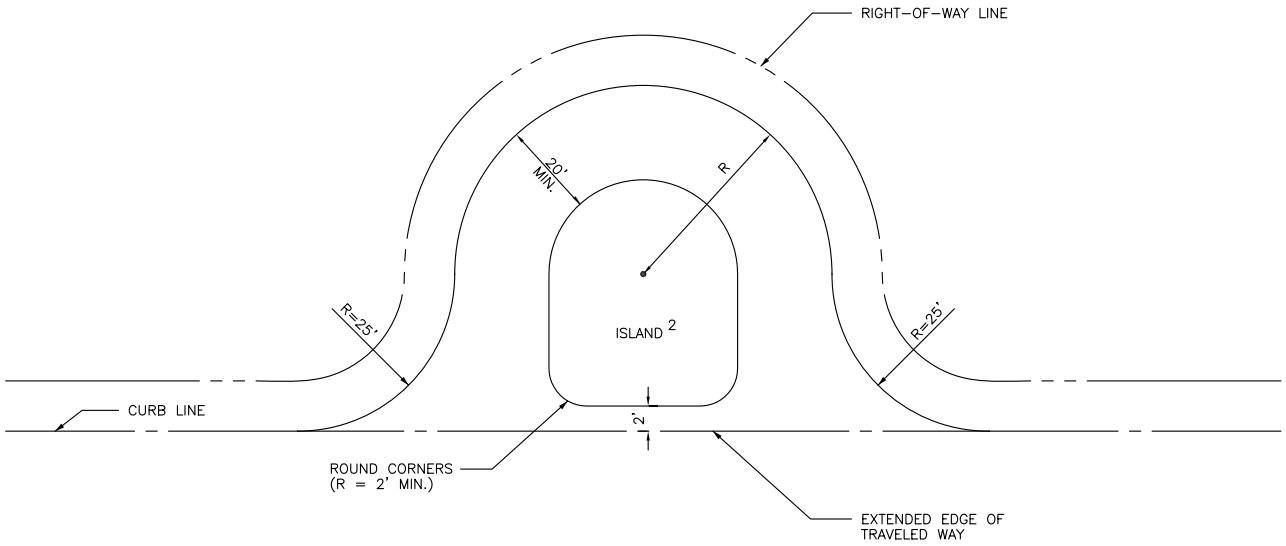
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

TEMPORARY CUL-DE-SAC

LAST REVISED 10/16/01

STANDARD PLAN 3-207-002



NOTES:

1. ISLAND REQUIRED ON EYEBROWS WITH R GREATER THAN 25 FEET.
2. MIN. ISLAND DIAM. SHALL BE 10 FEET.
3. LARGER RADII THAN SHOWN MAY BE REQUIRED FOR TURNING MOVEMENTS

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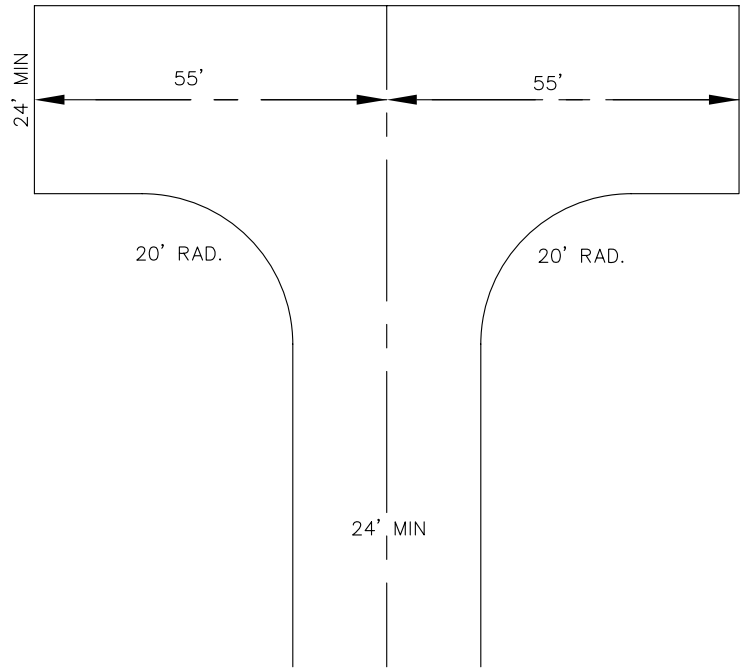
MARYSVILLE CITY ENGINEER DATE

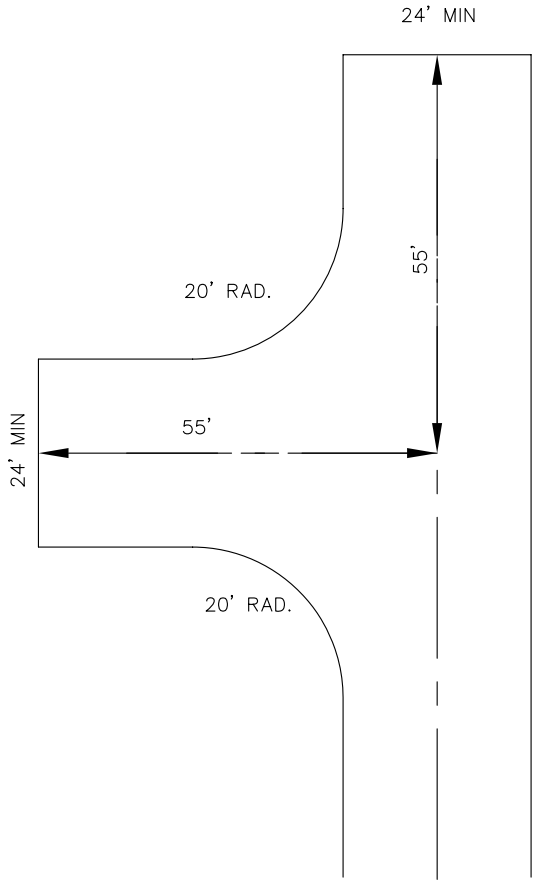
CITY OF Marysville WASHINGTON

TYPICAL ISLAND SECTION

STANDARD PLAN 3-207-003

LAST REVISED 10/16/01





NOTES

1. THIS STANDARD SHALL BE USED FOR 30' PRIVATE ROADS WHEN THEY EXCEED 150' IN LENGTH. (NOTE: THE LENGTH OF A PRIVATE ROAD SHALL BE MEASURED FROM THE EDGE OF THE INTERSECTING ROW TO THE END OF THE PRIVATE ROAD TRACT OR EASEMENT.)
2. ALL DIMENSIONS ARE MINIMUM PAVEMENT REQUIREMENTS.
3. THE TURNAROUND SHALL BE MARKED AS A FIRE LANE AND POSTED WITH NO PARKING SIGNS.
4. ALTERNATIVE TURNAROUNDS ARE NOT PERMITTED FOR PUBLIC ROADS.

APPROVED BY

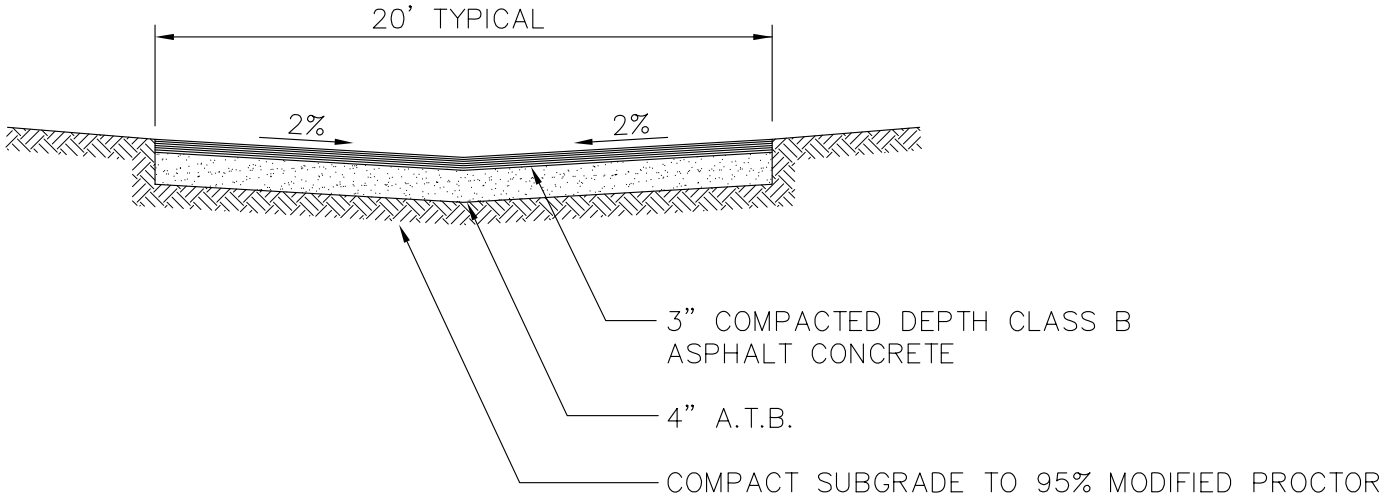
MARYSVILLE CITY ENGINEER DATE

PRIVATE ROAD
ALTERNATIVE TURNAROUNDS

CITY OF Marysville WASHINGTON

LAST REVISED 10/12/01

STANDARD PLAN 3-207-004



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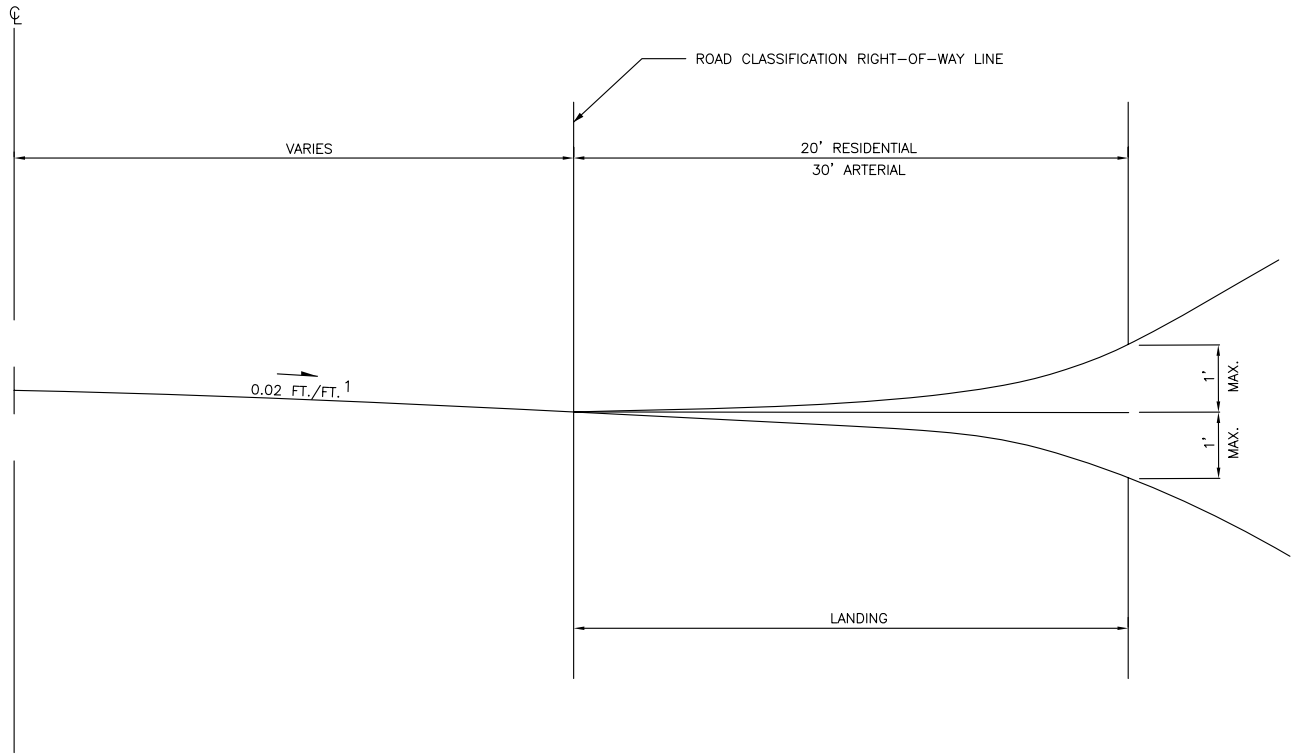
MARYSVILLE CITY ENGINEER DATE

ALLEY SECTION

CITY OF Marysville WASHINGTON

STANDARD PLAN 3-208-001

LAST REVISED 10/16/01



APPROVED BY

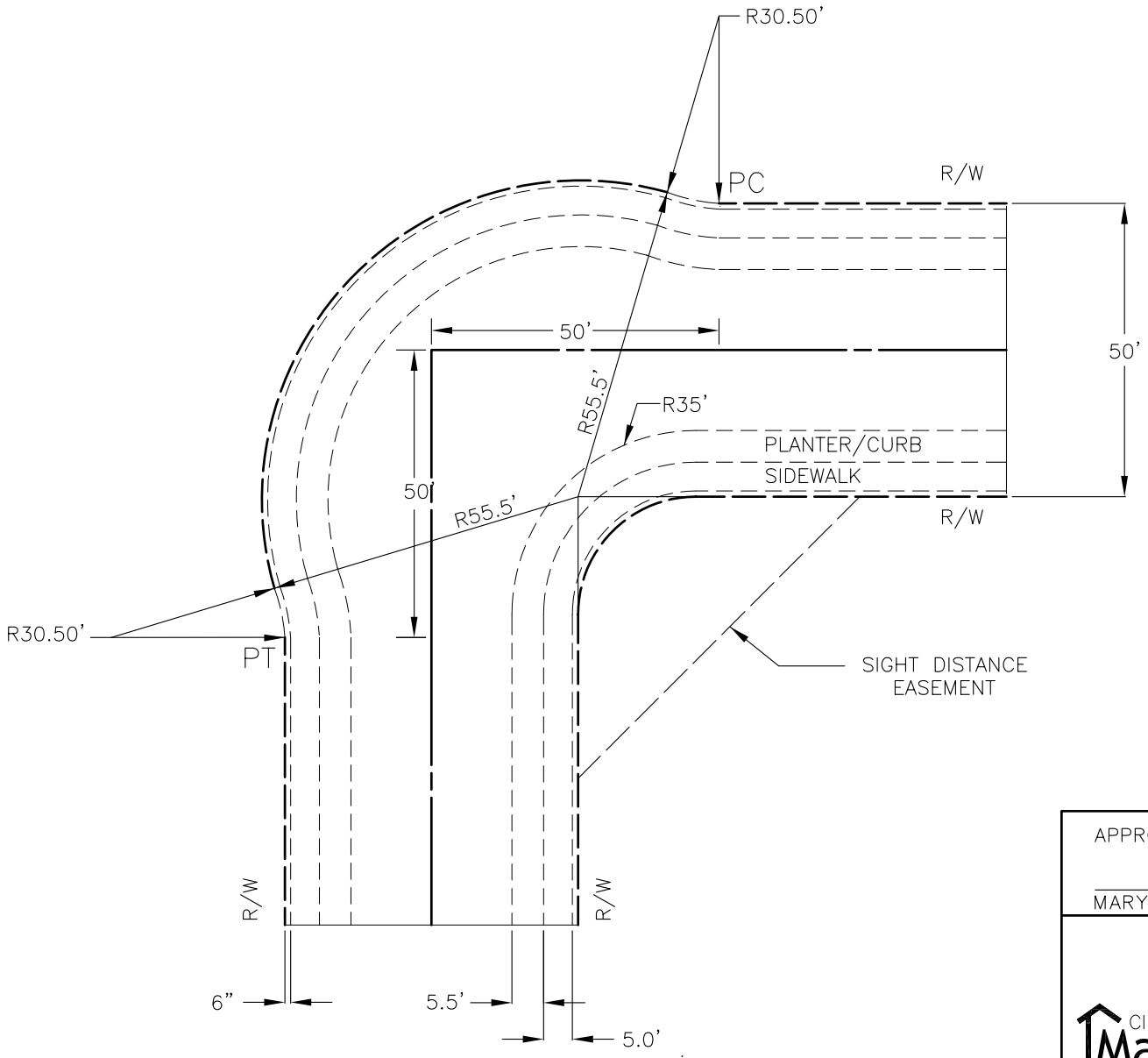
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

INTERSECTION LANDING

STANDARD PLAN 3–209–001

LAST REVISED 9/14/06



NOTES:

1. INTERSECTION ELBOWS MAY BE USED IN LIEU OF HORIZONTAL CURVES FOR CERTAIN LOW–SPEED DESIGNS IN SPECIAL CIRCUMSTANCES ONLY, REQUIRING CITY ENGINEER APPROVAL.

2. A MINIMUM 50' TANGENT IS REQUIRED FROM THE POINT OF INTERSECTION OF THE CENTERLINES.

3. INTERSECTION ANGLE SHALL BE 90 DEGREES +\– 10 DEGREES.

4. RADII SHOWN APPLY FOR A 50–FOOT LOCAL ACCESS STREET.

5. A SIGHT DISTANCE EASEMENT SHALL BE GRANTED ACROSS THE CORNER PROPERTY.

6. RAISED PAVEMENT MARKERS REQUIRED ALONG CENTERLINE THROUGHOUT CURVE.

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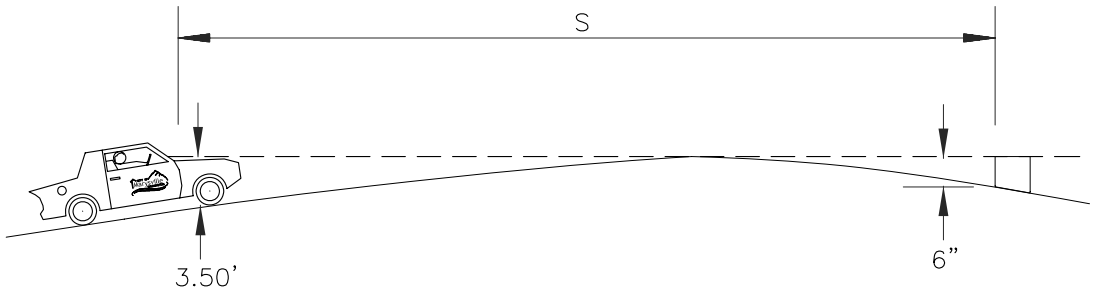
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

90 DEGREE INTERSECTION ELBOW

STANDARD PLAN 3–209–002

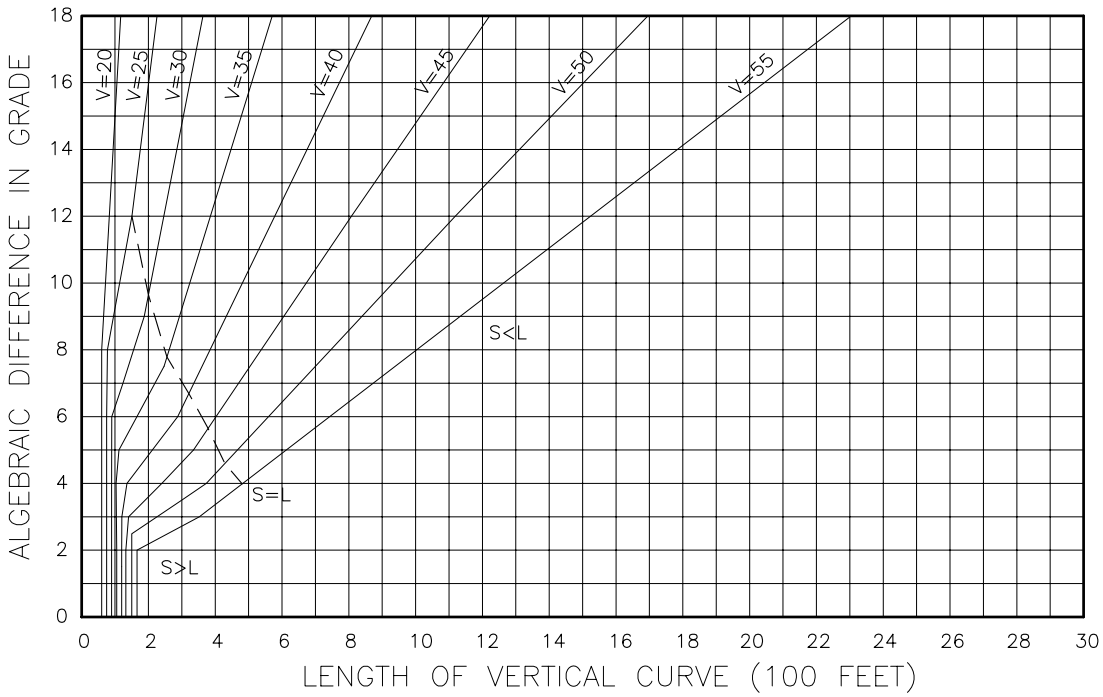
LAST REVISED 04/17/07



WHEN S > L	WHEN S < L
$L = 2S - \frac{1917}{A}$	$L = \frac{AS^2}{1917}$

L = CURVE LENGTH (FEET)
A = ALGEBRAIC GRADE DIFFERENCE (PERCENT)
S = SIGHT DISTANCE (FEET)

DESIGN SPEED (MPH)	DESIRABLE MINIMUM STOPPING DISTANCE (FEET)	MINIMUM LENGTH (FEET)
20	115	60
25	155	75
30	200	90
35	250	105
40	305	120
45	360	135
50	425	150
55	495	165
60	570	180



NOTES:

1. L=MINIMUM LENGTH OF CURVE BASED ON MINIMUM STOPPING SIGHT DISTANCE.

2. BASED ON FIGURE. 650–11 WSDOT DESIGN MANUAL.

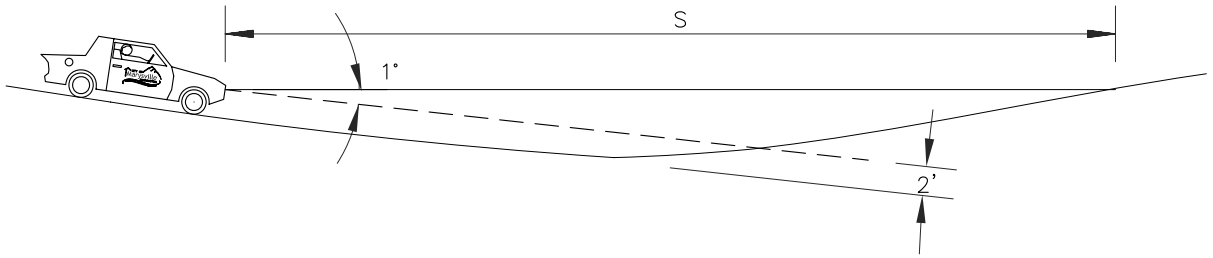
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

STOPPING SIGHT DISTANCE FOR CREST VERTICAL CURVE

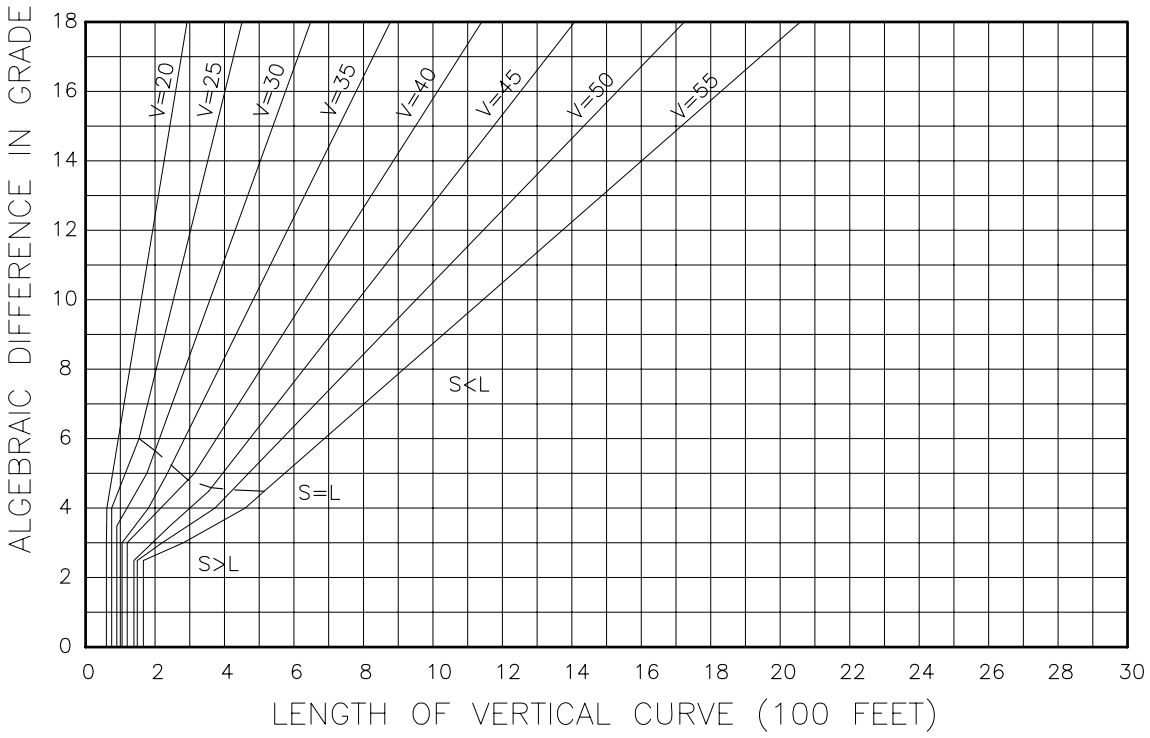
STANDARD PLAN 3–211–001

LAST REVISED 10/03/06



WHEN S > L	WHEN S < L
$L = 2S - \frac{400+3.5S}{A}$	$L = \frac{AS^2}{400+3.5S}$

L = CURVE LENGTH (FEET)
A = ALGEBRAIC GRADE DIFFERENCE (PERCENT)
S = SIGHT DISTANCE (FEET)



DESIGN SPEED (MPH)	DESIRABLE MINIMUM STOPPING DISTANCE (FEET)	MINIMUM LENGTH (FEET)
20	115	60
25	155	75
30	200	90
35	250	105
40	305	120
45	360	135
50	425	150
55	495	165
60	570	180

NOTES:

1. L=MINIMUM LENGTH OF CURVE BASED ON MINIMUM STOPPING SIGHT DISTANCE.

2. BASED ON FIGURE. 650-12 WSDOT DESIGN MANUAL.

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MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

STOPPING SIGHT DISTANCE FOR SAG VERTICAL CURVE

STANDARD PLAN 3-211-002

LAST REVISED 10/04/06

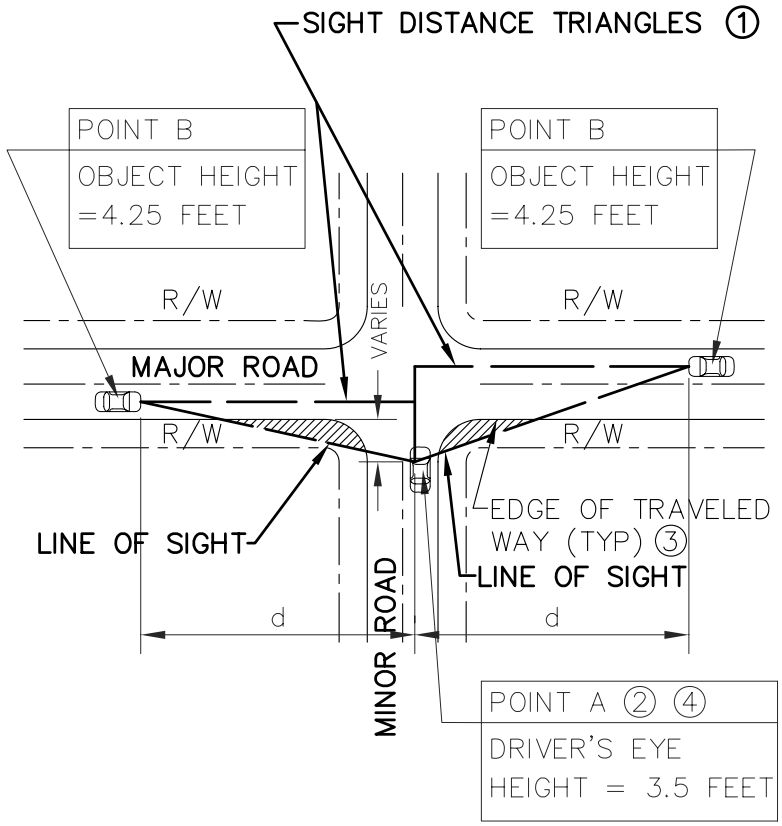
NOTES:

1. AT ANY INTERSECTION OF A PRIVATE ROAD/ACCESS POINT WITH A CITY ROAD OR A CITY ROAD WITH A CITY ROAD, THERE MUST BE A SIGHT DISTANCE TRIANGLE WHICH PROVIDES AN UNOBSTRUCTED LINE OF SIGHT FROM THE INTERSECTING ROAD EDGE OF TRAVELED WAY (POINT A) TO A POINT IN THE TRAVELED WAY (POINT B) AT LEAST EQUAL TO THE REQUIRED SIGHT DISTANCE d. SEE SECTIONS 201, 202, 203 AND STANDARD PLAN 3-212-002.

2. THE DRIVER'S EYE TO DETERMINE LINE OF SIGHT AT INTERSECTIONS IS 3.5 FEET ABOVE THE PAVEMENT, WITH AN OBJECT HEIGHT OF 4.25 FEET ABOVE THE PAVEMENT.

3. THE EDGE OF TRAVELED WAY IS DEFINED AS THE FACE OF CURB FOR ROADS THAT ARE OR WILL BE CONSTRUCTED TO URBAN STANDARDS AND THE EDGE OF PAVEMENT (NOT SHOULDER) FOR ROADS THAT ARE, OR WILL BE CONSTRUCTED TO RURAL STANDARDS. THE AREA WITHIN THE SIGHT DISTANCE TRIANGLE MUST BE FREE FROM ANY SIGHT OBSCURING OBJECTS WITH THE LINE OF SIGHT AT LEAST 18 INCHES ABOVE THE GROUND AND/OR THE TOP OF ANY PROPOSED VEGETATION ALONG THE LINE OF SIGHT.

4. THE DRIVER'S EYE LOCATION MAY BE REDUCED TO A MINIMUM OF 10 FEET BEHIND THE TRAVELED WAY, AT THE DISCRETION OF THE CITY ENGINEER, WHERE THE REDUCTION IN DRIVER'S EYE LOCATION WILL NOT ADVERSELY AFFECT SAFETY AND/OR OPERATION. SOME EXAMPLES OF SITUATIONS WHERE THE ENGINEER'S DISCRETION MAY BE USED ARE: AN INTERSECTION ON THE OUTSIDE OF A HORIZONTAL CURVE; AN INTERSECTION WHERE ONE APPROACH IS IN A CUT OR FILL; OR WHERE A BRIDGE RAILING OR ABUTMENT WOULD OBSCURE THE LINE OF SIGHT FROM 15 FEET BACK BUT NOT FROM 10 FEET BACK.



LEGEND

OBSTRUCTION FREE ZONE.

d SIGHT DISTANCE REQUIRED

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ENTERING SIGHT DISTANCE

CITY OF Marysville WASHINGTON

LAST REVISED 10/04/06

STANDARD PLAN 3-212-001

	LOCAL ACCESS STREET	NEIGHBORHOOD COLLECTORS	ARTERIAL STREETS	SETBACK DISTANCE POINT A (FEET)
PRIVATE RESIDENTIAL DRIVEWAY	SSD	SSD	ESD	10’
PRIVATE COMMERCIAL DRIVEWAY	ESD	ESD	ESD	15’
ALLEY	ESD	ESD	ESD	15’
LOCAL ACCESS STREET	ESD	ESD	ESD	20’
NEIGHBORHOOD COLLECTORS	ESD	ESD	ESD	20’
ARTERIAL STREETS	ESD	ESD	ESD	20’

NOTE:

REFER TO STANDARD PLAN 3–212–001
SSD – STOPPING SIGHT DISTANCE
ESD – ENTERING SIGHT DISTANCE

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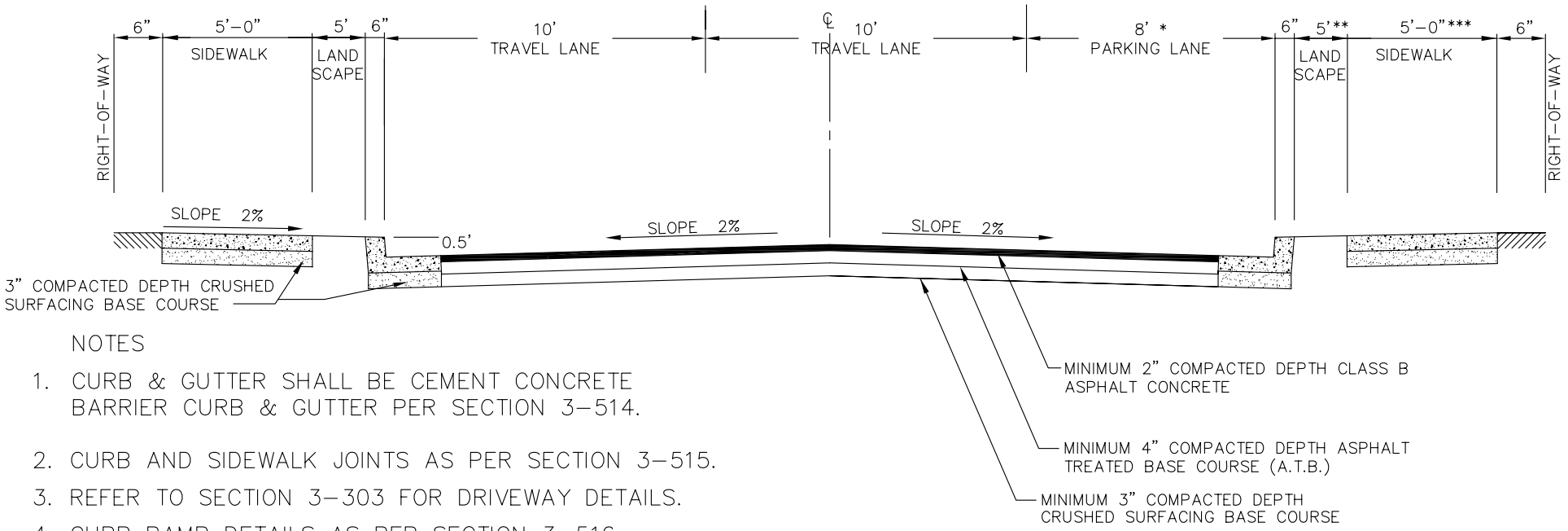
MARYSVILLE CITY ENGINEER DATE

ENTERING SIGHT DISTANCE TABLE

CITY OF Marysville WASHINGTON

LAST REVISED 4/25/07

STANDARD PLAN 3–212–002



NOTES

1. CURB & GUTTER SHALL BE CEMENT CONCRETE BARRIER CURB & GUTTER PER SECTION 3-514.
2. CURB AND SIDEWALK JOINTS AS PER SECTION 3-515.
3. REFER TO SECTION 3-303 FOR DRIVEWAY DETAILS.
4. CURB RAMP DETAILS AS PER SECTION 3-516.
5. THIS DRAWING ILLUSTRATES A MINIMUM ASPHALT CONCRETE ROAD SECTION. DESIGN FOR RESIDENTIAL ACCESS STREETS SHALL BE IN ACCORDANCE WITH SECS. 3-401 AND 3-402. ADDITIONAL SUBGRADE TREATMENT MAY BE REQUIRED DEPENDING ON SOIL CONDITIONS.
6. THIS SECTION MAY ONLY BE USED PURSUANT TO MMC 19.48, PLANNED RESIDENTIAL DEVELOPMENTS.
7. "NO PARKING" SIGNAGE REQUIRED ON SIDE WITHOUT PARKING
8. WIDER TRAVEL LANES AND/OR TURN POCKETS MAY BE REQUIRED AT INTERSECTIONS AS DETERMINED BY THE CITY ENGINEER

* PARKING ON ONE SIDE ONLY ALTERNATE EVERY 300 FEET AS APPROVED BY THE CITY ENGINEER.

** LANDSCAPE STRIP MAY BE ELIIMINATED PURSUANT TO PRD ZONING CODE

***SIDEWALK MAY BE ELIMINATED ON ONE SIDE PURSUANT TO PRD ZONING CODE

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MARYSVILLE CITY ENGINEER DATE

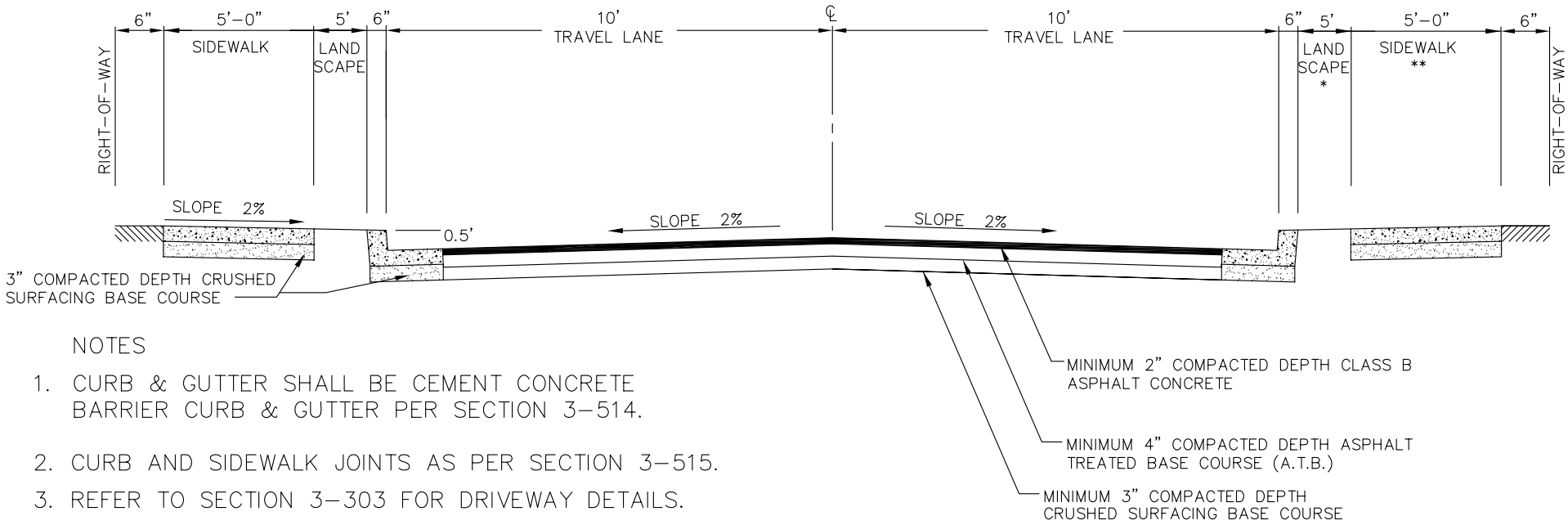
CITY OF Marysville WASHINGTON

PRD ACCESS STREET WITH STREET PARKING

COMBINED CURB, GUTTER & SIDEWALK

STANDARD PLAN 3-218-001

LAST REVISED 10/06/06



NOTES

1. CURB & GUTTER SHALL BE CEMENT CONCRETE BARRIER CURB & GUTTER PER SECTION 3-514.
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6. THIS SECTION MAY ONLY BE USED PURSUANT TO MMC 19.48, PLANNED RESIDENTIAL DEVELOPMENTS.
7. "NO PARKING" SIGNAGE REQUIRED ON BOTH SIDES OF STREET
8. WIDER TRAVEL LANES AND/OR TURN POCKETS MAY BE REQUIRED AT INTERSECTIONS AS DETERMINED BY THE CITY ENGINEER

* LANDSCAPE STRIP MAY BE ELIIMINATED PURSUANT TO PRD ZONING CODE

** SIDEWALK MAY BE ELIMINATED ON ONE SIDE PURSUANT TO PRD ZONING CODE

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

PRD ACCESS STREET

COMBINED CURB, GUTTER & SIDEWALK

STANDARD PLAN 3-218-002

LAST REVISED 10/03/06

Site Access

3-300 General

A. Access to City roads is regulated through the Right of Way (R/W) Use permit process. No construction of access points or related improvements will be allowed without a valid R/W Use permit. Permits will be evaluated and issued based on the ability of the proposed access or use to meet these Standards.

B. If a proposed property access point cannot meet these Standards, the Engineer may designate one or more access points based on traffic safety, operational needs, and conformance to as many of the requirements of these Standards as possible.

C. Access points for parking or loading areas shall be designed so that backing maneuvers from or onto a public street R/W will not occur. This does not apply to single family or duplex residential uses on non-arterial roads.

D. Where necessary for the safe and efficient movement of traffic, the Engineer may require investigation by the applicant to determine whether access points should be designed to limit turning movements. The Engineer may also require joint access and circulation agreements between neighboring properties to further provide safe and efficient movement of traffic.

E. Temporary access may be granted to undeveloped property prior to completion of a final development plan if access is needed for construction of preliminary site access. Temporary access points are subject to removal, relocation, or redesign after final development plan approval.

F. Secondary access for emergency vehicles may be required for certain high volume or public safety sensitive developments. They shall be designed to the satisfaction of the Public Works Director or designee based on review by the City of Marysville Fire Department.

G. No relocation, alteration or reconstruction of existing access points is permitted without prior written approval from the Public Works Director or designee.

H. Existing Access points that do not meet these standards may be required to be revised or removed if deemed necessary by the Public Works Director or designee.

3-301 Arterial Access Standard

The access management plan spacing standards for implementation in the City of Marysville arterial system are shown in the Table 3-3.1. Standard Plan No. 3-301-001 depicts the corresponding

dimensional locations graphically. As shown in Table 3-3.1, the driveway spacing standards for a full access driveway range from 125 feet to 300 feet depending on the speed of the arterial, adjacent intersection traffic control, and spacing between adjacent driveways.

Table 3-3.1
Driveway Location and Spacing Guidelines

Posted Speed	Adjacent Intersection Control	Full Access (A)	Right Turn In/ Right Turn Out Only (B)	Right Turn Out or Right Turn In Only (C)
< or = 30 MPH	STOP SIGN	125 FT	100 FT	100 FT
< or = 30 MPH	SIGNALIZED	230 FT	125 – APPROACH 150- DEPART	100 FT
35 MPH	STOP SIGN	150 FT	120 FT	120 FT
35 MPH	SIGNALIZED	250 FT	150 – APPROACH 200- DEPART	135 FT
40 MPH	STOP SIGN	175 FT	140 FT	140 FT
40 MPH	SIGNALIZED	275 FT	175 – APPROACH 250- DEPART	150 FT

Refer to Standard Plan No. 3-301-001 for corresponding graphic locations

Driveway spacing standards for right turn in/right turn out only driveways are slightly lower ranging from 100 feet to 250 feet depending on arterial speed, traffic control and the direction of travel relative to adjacent signalized intersections. The direction of travel relative to the intersection (approaching or departing) is important to maintaining traffic flow where accelerating vehicles and drivers slowing down to enter driveways are the cause of many rear end accidents.

Right turn driveway spacing standards are lower since there are less points of vehicular conflict. Access locations restricted to right turn in only or right turn out only movement range from 100 feet to 150 feet depending on arterial speed and traffic control.

In addition to the access driveway spacing standards above, the following standards should also be considered and implemented as applicable:

- Driveways are to be restricted to right turns only with the use of medians or driveway pork-chop islands with appropriate signing consistent with WSDOT design criteria and the Manual on Uniform Traffic Control Devices (MUTCD).
- Left turn access may be restricted if left turn traffic movements significantly interrupt traffic flow and operations as determined by the Public Works Director or designee. Channelization allows traffic to exit the main flow of traffic to conduct the left turn movement while maintaining the

capacity of the through lanes. Left turn channelization warrant analysis based on WSDOT Design Manual guidelines should be conducted to identify if improvements should be provided or constructed.

- Only one (1) full access shall be allowed for every 500 feet of any contiguous parcel ownership or master plan arterial frontage. In all cases, the number of access locations should be minimized and existing access consolidated if possible.
- Access point should be placed directly opposite each other. If this is not possible, a separation between the nearest edges of such opposite access points shall meet the spacing criteria set forth in Table 3.
- Where a property has frontage on more than one roadway, access will generally be limited to the lowest volume roadway where the impacts of a new access will be minimized. Access onto other higher volume roadways may be denied or restricted in the interest of traffic safety or in order to lessen congestion on the higher volume road.
- The spacing measurement for all access standards shall be measured from the near edge of access driveways and the right-of-way line for public streets or the near edge of the adjacent driveway.
- Spacing for proposed driveways access adjacent to railroad right of way shall be measured from the railroad stop bar to the near edge of the driveway.
- Provisions for joint access may be required for two adjacent developments where a proposed new access will not meet the spacing requirements of this plan or to limit the number of access points on the arterial. In the event the adjacent property is not ready for development, the first property ready for development may use an interim access.
- Sight distance standards for ingress and egress movements shall be satisfied for all proposed access locations based on section 3-212.

Requiring turn movement restrictions based on traffic volumes should be considered when average daily traffic volumes on the arterial reaches between 24,000 to 28,000 vehicles per day. National studies have indicated that arterials with two-way left turn lanes start to become unsafe at this level of daily traffic, although most retrofitting projects occur when traffic volumes reach approximately 40,000 ADT. Access restriction considerations due to high traffic volumes should be reviewed on a case-by-case basis depending on the hourly loading of the daily volumes and the distribution of traffic volumes during the peak hours.

Additionally, Snohomish County Procedure 4210 for Level of Service Determinations outlines a range of traffic volumes for level of service grades at peak hour conditions. These traffic volume levels are

shown in the appendix of this report. These volumes can be adopted for use as guideline to determine turn movement restriction applications and development approval volumes for arterial roadway sections.

Variance to the arterial access standard is as follows:

1. A variance to the Marysville Access Management Plan standards shall be granted by the City, only if the applicant demonstrates all of the following in writing:
   - **a.** Special conditions and circumstances exist which are peculiar to the land such as size, shape, topography or location, not applicable to other lands in the same neighborhood, and that literal interpretation of the provisions of the access standards would deprive the property owner of rights commonly enjoyed by other properties similarly situated in the same neighborhood;
   - **b.** Special conditions and circumstances do not result from the actions of the applicant, and are not self-imposed hardships;
   - **c.** Granting of the variance requested will not confer a special privilege to the subject property that is denied other lands in the same neighborhood;
   - **d.** Granting of the variance will not be materially detrimental to the public welfare or injurious to the property or improvements in the neighborhood in which the subject property is situated;
   - **e.** Granting of the variance requested will be in harmony with the general purpose and intent of the access management plan and engineering standards;
   - **f.** The purpose of the variance is not merely to permit the subject property to be utilized more profitably by the owner or to economize on the cost of improving the property;
   - **g.** Granting of the variance will not be detrimental to the existing safety or capacity of the corridor.
2. In granting any variance the City may prescribe appropriate conditions and safeguards that will ensure that the purpose and intent of the access management plan and engineering standards will not be violated.
3. The Public Works Director or designee may approve, approve with conditions, or deny variances to the Access Management Plan standards. For change in existing Land Use, Public Notice of the variance request will be provided to property owners within 300 feet of the subject property. All decisions shall be accompanied by written finding relating to the variance criteria. The Public Works Director or designee's decisions under this section shall be final on the date issued. Administrative interpretations and administrative approvals may be appealed by applicants or aggrieved adjacent property owners to the Hearing Examiner.

Appeal shall be filed within 14 days of the issuance of decision. The appeal process is identified in Chapter 15.11 of the Marysville Municipal Code.

3-302 Non-Arterial Access Standards

- The nearest edge of any access point shall be a minimum of 6 feet from the property line.
- No access point shall be placed within the entering sight distance triangle see section 3-212.
- The nearest edge of any access point flare or radius must be at least 3 feet from the nearest point of a fire hydrant, no parking zone, utility pole, traffic signal installation or light standard, mailbox cluster or similar appurtenance.
- On lot frontages with 75 feet or less, no more than one driveway per lot shall be constructed. On lot frontages over 75 feet, two or more driveways per lot may be permitted, subject to approval by the Public Works Director or designee and in accordance with the maximum allowable frontage requirements see section 3-303.
- A minimum corner clearance of 50 feet shall be maintained from the nearest edge of any access point to the edge of traveled way. When minimum corner clearances cannot be attained, the Engineer may require investigation to substantiate whether or not left turns should be prohibited into or out of the access point see standard plan 3-301-001 dimension A.
- Where a property has frontage on more than one roadway, access will generally be limited to the lowest volume roadway where the impacts of a new access will be minimized. Access onto other higher volume roadways may be denied or restricted in the interest of traffic safety or in order to lessen congestion on the higher volume road.

3-303 Driveways

A. Dimensions, slope, and detail shall be as indicated in Standard Plans 3-303-001 through 3-303-003, as further specified in the following subsections.

B. Conditions for Approval of New Driveways:

1. Driveways directly giving access onto arterials may be denied if alternate access is available see section 3-301.
2. All abandoned driveway areas on the same frontage shall be removed and the curbing and sidewalk shall be properly restored.

3. Maintenance of driveway approaches shall be the responsibility of the owner whose property they serve.
4. The standard driveway width shall be 12 feet minimum and 20 feet maximum for single family residential uses, 25 foot minimum and 30 foot maximum for multiple family residential uses, and 30-foot minimum and 40 foot maximum for commercial/industrial driveways. Driveways shall be the minimum width feasible.
5. Driveway widths shall not be wider then 30% of the property's roadway frontage.
6. Recommended driveway width standards for the City's pedestrian oriented corridors shall be 30% less than the standard driveway width.

C. Location and Width of New Driveways.

1. A residential driveway shall typically serve only one parcel. A driveway serving more than one parcel shall be classed as a commercial driveway or a private street, except as provided in 2.a. and 2.b. below.
2. No portion of driveway width shall be allowed within 6 feet of side property lines except as follows:
   a. A joint use driveway tract/easement may be used to serve two parcels:
      (1) Minimum tract width shall be 20 feet, cross slope in one direction and curb or thickened edge on one side. Minimum tract/easement length shall be 20 feet from right-of-way line. The intent of joint use driveways is for side by side lots fronting the same public roadway, alternate layouts may be considered on a case by case basis requiring City Engineer or designee approval.
      (2) The City Engineer or designee may allow use of an easement if the only access to a serving roadway is through an adjacent parcel not owned by the applicant or for residential short plats to satisfy minimum lot width requirements.
      (3) Joint use driveways exceeding 150 feet in length shall provide an approved turnaround.
      (4) Joint use driveways must gain access from a public roadway.
   b. Driveways may utilize full width of narrow "pipe-stem" parcels or easements if approved by Public Works Director or designee.
   c. On cul-de-sac bulbs as necessary for proposed residential access.

3. Grade transitions, excluding the tie to the roadway, shall be constructed as smooth vertical curves. Ties to the roadway shall be constructed as shown in Standard Plans 3-303-001, 3-303-002 and 3-303-003.

D. Existing driveways may be reconstructed as they exist provided such reconstruction is compatible with the adjacent road.

E. For commercial or industrial driveways with heavy traffic volumes or significant numbers of trucks on arterial streets, the Public Works Director or designee may require construction of the access as a road intersection. The driveway shall be designed with maximum curb return radius of 30 feet and there shall be a pedestrian treatment of red brick, pavers, or portland cement concrete. This requirement will be based on a traffic engineering analysis submitted by the applicant that meet or exceed the following criteria:

- The development must generate more than 1000 ADT
- The arterial street has an ADT of greater than 15,000
- The posted speed of the arterial is 30 mph or greater
- The site shall not be in an area of high pedestrian activity

F. Notwithstanding any other provisions, driveways will not be allowed where they are prohibited by separate City Council action or where they are determined by the Public Works Director or designee to create a hazard or impede the operation of traffic on the roadway.

G. Access to commercial or industrial use corner lots shall be located on the lower volume roadway and as close as practicable to the property line most distance from the intersection.

H. New private property access points will require the installation of Drop Curb Driveways as shown on Standard Drawings.

I. The design of access points must take into consideration the percentage of truck traffic utilizing the access point. Drainage patterns must also be taken into account in the design of access points.

J. Larger access point radii (typically between 40 and 50 feet but possibly as much as 70 feet) may be required for access points when multi-unit vehicles or single unit vehicles exceeding 30 feet in length (SU vehicle = 30 feet) comprise 10% or greater of the traffic expected to use the access point.

K. Vehicles should be able to utilize radius return access points without encroaching on adjacent lanes of traffic.

3-304 Number of Access Points

A. The standard number of access points for a development are:

1. Residential property uses – one two-way access point.
2. Commercial or Industrial property uses – one two-way access point or two one-way access points per 500 feet of any contiguous parcel ownership or total development frontage.

B. Additional access points may be considered by the Engineer provided a development or circulation plan is submitted to the Engineer indicating that more than the maximum number of access points permitted in Subsection a. are required to adequately handle access point volumes, and will not be detrimental to traffic flow on adjacent roads.

C. For large developments, it is often desirable to consolidate access traffic at a single point, which can be signalized. Proposed signalization must meet appropriate warrants in the MUTCD. Access point signals should be coordinated with adjacent traffic signals and located to provide satisfactory signal progression for through traffic.

D. When property frontages are narrow, such that minimum access point spacing criteria cannot be met, it may be necessary to require joint access locations at property lines.

E. The requirements of this section are not intended to override the need for a secondary access for emergency vehicles if such access has been determined by the Fire Marshal to be necessary under the provisions of section 10.207 of the Uniform Fire Code.

3-305 Vertical Alignment of Access Point

A. Approach grades and configuration shall accommodate future street widening to prevent major access point reconstruction.

B. For maximum access grades, see standard drawing 3-303-004.

C. The design Engineer for proposed developments shall consider the access driveway profile when designing the serving road to ensure that required grade transitions can be complied with considering building set back and lot terrain conditions.

3-306 Sight Distance

For determination of minimum sight distance at private access points, see section 3-212.

3-307 Access and Circulation Requirements

The need for left turn, right turn, acceleration and deceleration lanes will be determined in conjunction with development proposals on a case by case basis. Evaluation by the Public Works Director or designee may require submittal of traffic data by the Applicant/Developer.

3-308 Construction of Access Points

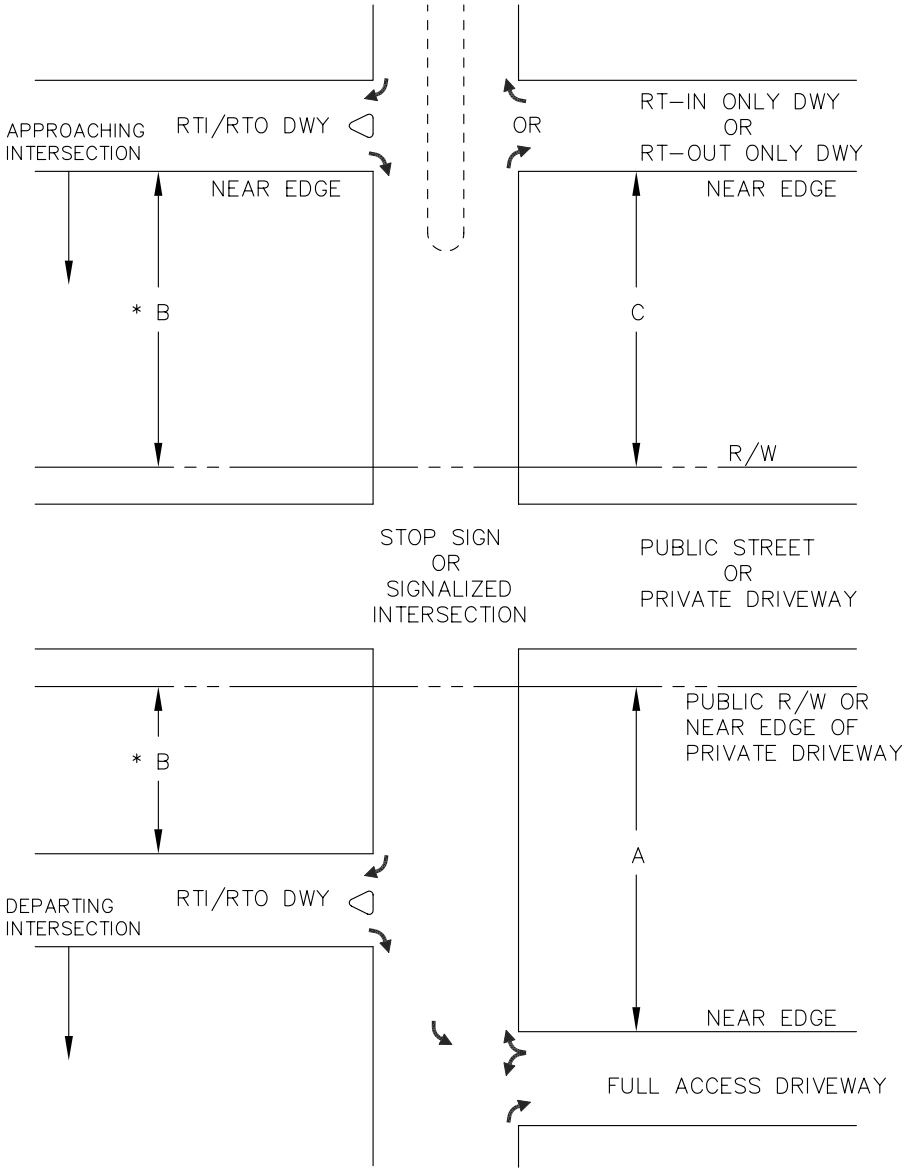
A. The construction of all access points involving removal of existing vertical curb or vertical curb and gutter shall conform to this section.

B. When cutting through or crossing vertical curb, gutter and sidewalk access approaches must extend from the curb to back of sidewalk and be constructed of portland cement concrete.

C. When an opening for an access or for any other purpose is to be constructed through an existing portland cement concrete vertical curb, the existing curb, or curb and gutter shall be saw cut at the limits of work or removed to the nearest construction joint and the opening replaced with standard curb and driveway.

D. Existing street trees, streetlights, traffic signal facilities, utility poles, and fire hydrants must be shown on any plan for access point construction in an area of existing vertical curb.

E. Prior to commencing any necessary removal or relocation of any public utilities, structures, trees, or plantings due to construction of an access point, the applicant/developer must secure approval from the person or persons having ownership or control of such facilities or features.



* DIMENSION B FOR RIGHT TURN IN/RIGHT TURN OUT ONLY DRIVEWAYS DEPENDS ON WHICH SIDE OF INTERSECTION DRIVEWAY IS LOCATED (APPROACHING OR DEPARTING)

NOTE

1. SEE TABLE 3-3.1 FOR DIMENSION

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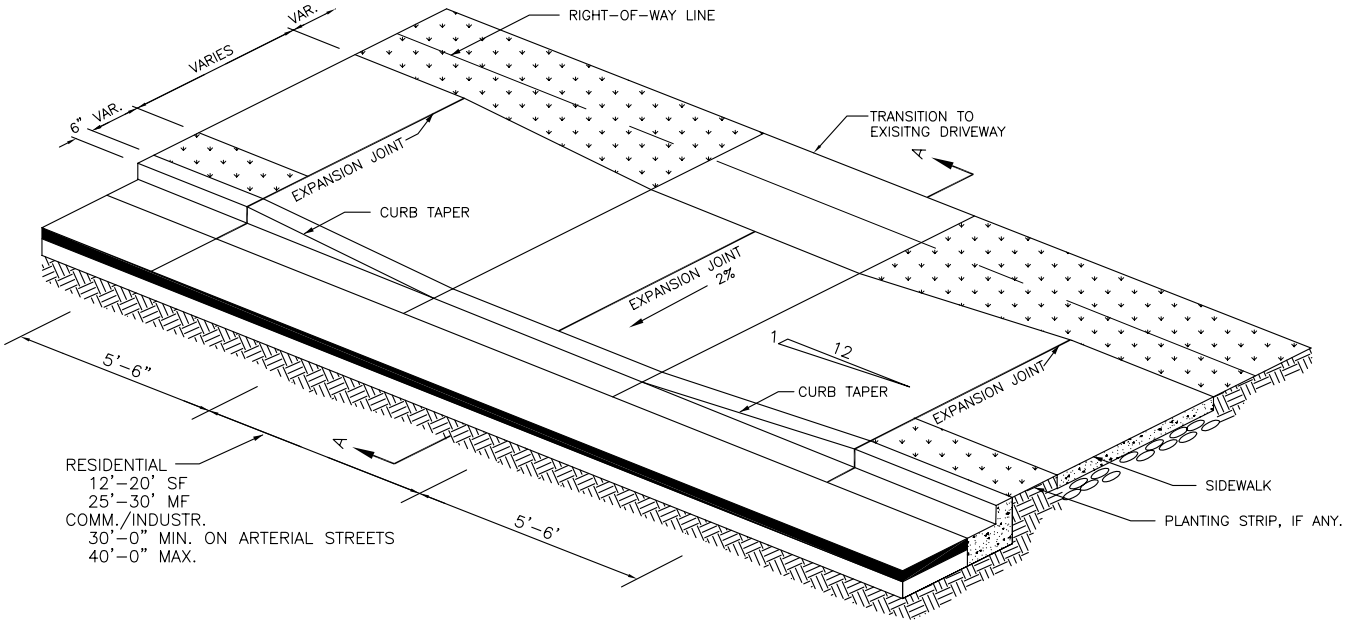
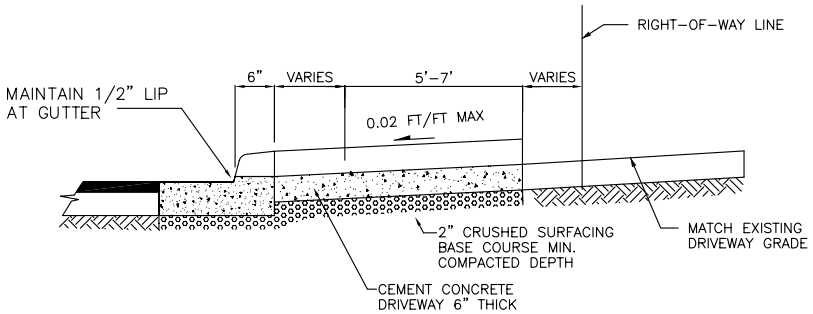
ARTERIAL STREET DRIVEWAY LOCATION SPACING

CITY OF Marysville WASHINGTON

STANDARD PLAN 3-301-001

LAST REVISED 10/16/01





SECTION A-A

NOTES:

1. COMMERCIAL/INDUSTRIAL DRIVEWAYS WIDER THAN 40' MAY BE APPROVED BY THE ENGINEER CONSIDERING TRAFFIC SAFETY AND NEEDS OF THE ACTIVITY SERVED. ALL COMMERCIAL/INDUSTRIAL DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED EVERY 15 LINEAL FEET.
2. DRIVEWAYS LIMITED TO 30% OF FRONTAGE

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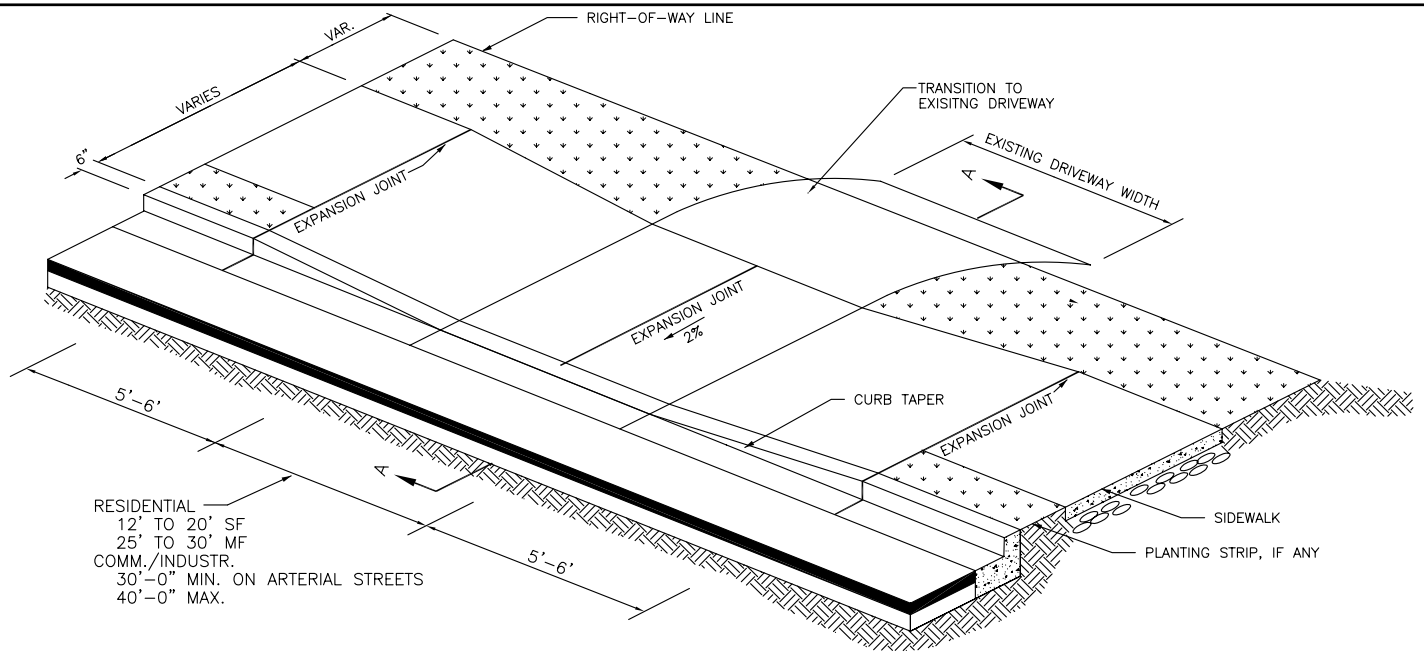
CITY OF Marysville WASHINGTON

CURB & GUTTER SECTION DRIVEWAY

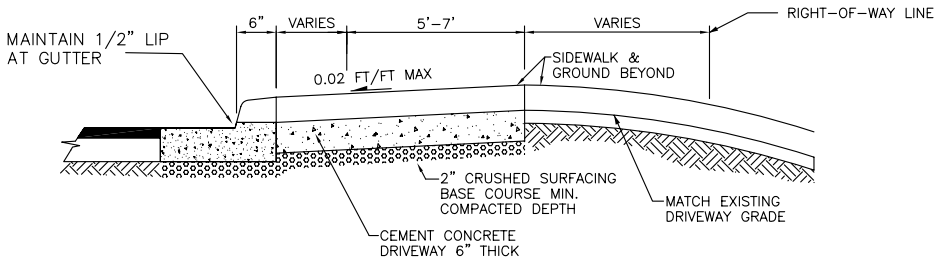
STANDARD PLAN 3-303-001

LAST REVISED 10/06/06



NOTES:

1. A REVERSE SLOPE DRIVEWAY IS SUBJECT TO APPROVAL BY ENGINEER CONSIDERING NEED FOR AND COMPATIBILITY OF THIS FEATURE.
2. COMMERCIAL/INDUSTRIAL DRIVEWAYS WIDER THAN 40' MAY BE APPROVED CONSIDERING TRAFFIC SAFETY AND NEEDS OF THE ACTIVITY SERVED. ALL COMMERCIAL/INDUSTRIAL DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED EVERY 15 LINEAL FEET.



SECTION A–A

APPROVED BY

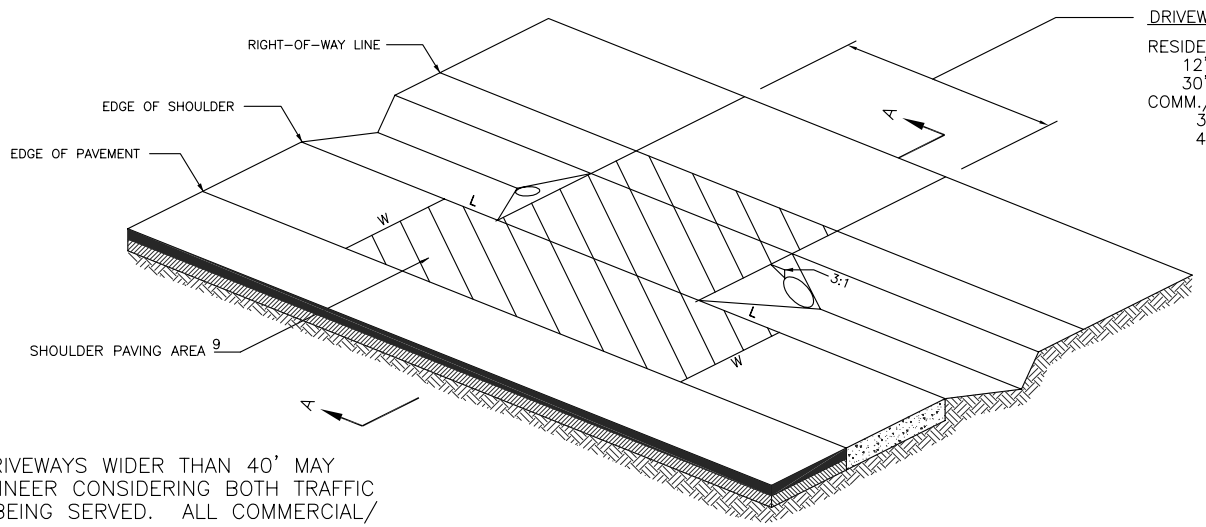
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

DRIVEWAY REVERSE SLOPE

STANDARD PLAN 3–303–002

LAST REVISED 10/06/06



NOTES:

1. COMMERCIAL/INDUSTRIAL DRIVEWAYS WIDER THAN 40' MAY BE APPROVED BY THE ENGINEER CONSIDERING BOTH TRAFFIC SAFETY AND THE ACTIVITY BEING SERVED. ALL COMMERCIAL/ INDUSTRIAL DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED MID-WIDTH.

2. PIPE SHALL BE:
   A. SIZED TO CONVEY COMPUTED STORM WATER RUNOFF, AND
   B. MIN. 12" DIAM., AND
   C. EQUAL TO OR LARGER THAN EXISTING PIPES WITHIN 500' UPSTREAM.

3. EXPOSED PIPE ENDS SHALL BE BEVELED TO MATCH THE SLOPE FACE AND PROJECT NO MORE THAN 2" BEYOND SLOPE SURFACE. PROJECTING HEADWALLS ARE NOT ACCEPTABLE.

4. DUCTILE IRON PIPE SHALL HAVE MIN. COVER OF 12" TO FINISH GRADE. ALL OTHER TYPES OF PIPE SHALL HAVE MIN. 24" COVER.

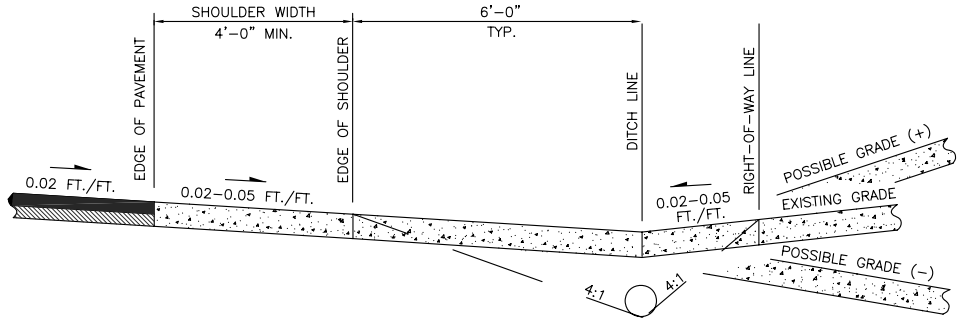
5. PIPE SHALL BE INSTALLED IN A STRAIGHT UNIFORM ALIGNMENT AT A MIN. 0.5% SLOPE (0.5 FT. PER 100 FT.) WITH THE DOWNSTREAM END LOWER THAN THE UPSTREAM END.

6. PIPE MAY BE OMITTED IF ROADSIDE DITCH DOES NOT EXIST AND DRIVEWAY DOES NOT BLOCK NATURAL FLOW.

7. DRIVEWAY SLOPE SHALL MATCH TO BACK EDGE OF SHOULDER, BUT SHOULDER SLOPE AND EDGE OF SHOULDER SHALL NOT BE ALTERED AS A RESULT OF DRIVEWAY CONSTRUCTION.

8. PAVED DRIVEWAYS SHALL BE PAVED THROUGH RIGHT-OF-WAY WITH A.C.P. OR B.S.T., BUT NOT P.C.C.

9. GRAVEL DRIVEWAYS SHALL BE PAVED BETWEEN THE EDGE OF PAVEMENT AND R/W WITH A.C.P. OR B.S.T. ONLY WITH DIMENSIONS L=W.



SECTION A-A

APPROVED BY

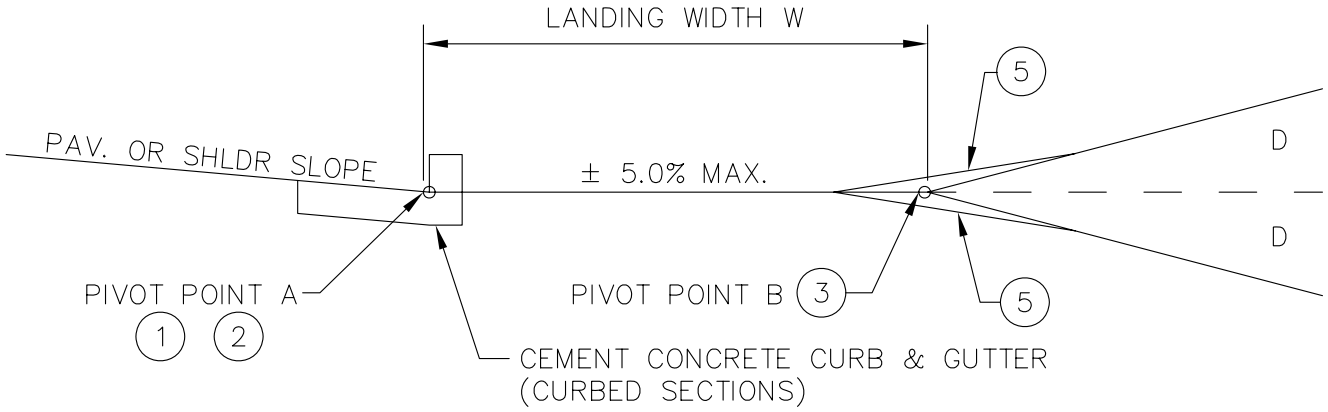
MARYSVILLE CITY ENGINEER DATE

SHOULDER & DITCH SECTION DRIVEWAY

CITY OF Marysville WASHINGTON

STANDARD PLAN 3-303-003

LAST REVISED 10/04/06



TYPE OF ACCESS	ACCESSING	LANDING WIDTH W (1)	ACCESS GRADE D
RESIDENTIAL	NON–ARTERIAL	5' MIN., 20' DESIRABLE	± 15% MAX.
RESIDENTIAL	ARTERIAL	5' MIN., 20' DESIRABLE	± 7% MAX.
COMMERCIAL/INDUSTRIAL	NON–ARTERIAL	10' MIN., 30' DESIRABLE	± 8% MAX.
COMMERCIAL/INDUSTRIAL	ARTERIAL	10' MIN., 30' DESIRABLE	± 5% MAX.

NOTES:

1. WHEN ACCESSING CURBED ROADWAYS, MAINTAIN PAVEMENT SLOPE TO PIVOT POINT A.
2. WHEN ACCESSING SHOULDERED ROADWAYS, MAINTAIN SHOULDER SLOPE TO PIVOT POINT A.
3. ACCESS POINT GRADE SHALL BE MEASURED FROM PIVOT POINT B.
4. DESIRABLE WIDTHS SHOWN WILL BE THE REQUIREMENT, UNLESS THE APPLICANT DEMONSTRATES TO THE ENGINEER'S SATISFACTION THAT THEY CANNOT BE OBTAINED.
5. VERTICAL CURVES NOT TO EXCEED A 3–1/4 INCH HUMP OR A 2 INCH DEPRESSION IN A 10 FOOT CHORD.

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

DRIVEWAY VERTICAL ALIGNMENT

LAST REVISED 10/16/01

STANDARD PLAN 3–303–004

Surfacing

3-400 Surfacing

3-401 Residential streets, driveways, pedestrian and bike facilities

A. The minimum paved section, with alternative combinations of materials, for residential streets, shoulders, sidewalks and bikeways shall be as indicated on the Standard Plans. These sections are acceptable only on good, well drained, stable compacted sub-grade. Any proposed exception to these materials will be subject to soils strength testing and traffic loading analysis and subject to review and approval by the Public Works Director or designee as outlined in Section 3-402. All expenses for determining revised material requirements shall be borne by the Developer.

B. Driveways may be surfaced as desired by the owner, except:

1. On curbed streets with sidewalks, driveway shall be paved with portland cement concrete Class 4000 or 3000 3-day mix from curb to back edge of sidewalk. See Standard Plans 3-303-001 and 3-303-002.
2. On shoulder and ditch sections, driveway between edge of pavement and right-of-way shall consist of 2 inches of asphalt treated base and 2 inches of asphalt concrete pavement.
3. On thickened edge roadways with underground utilities, portland cement concrete may be used for driveways between the thickened edge and the right-of-way line provided that a construction joint is installed at the right-of-way line.

C. Street widening/adding traveled way to existing roads.

1. When an existing asphalt paved street is to be widened, the edge of pavement shall be saw cut to provide a clean, vertical edge for joining to the new asphalt. After placement of the new asphalt section, the joint shall be sealed and the street overlaid with one inch of asphalt concrete pavement, plus a pre-level course, full width throughout the widened area. The Public Works Director or designee, based on the condition of existing pavement, may waive the requirement for overlay and the extent of required changes to channelization.
2. When an existing shoulder is to become part of a proposed traveled way; the developer's engineer shall perform a pavement evaluation. This evaluation shall analyze the structural capacity and determine any need for improvement. Designs based on these evaluations are subject to review and approval by the

Public Works Director or designee. The responsibility for any shoulder material thickness improvement shall be considered part of the requirement for roadway widening. The shoulder shall be replaced in width as specified in Sections 3-201, 3-202 and 3-203.

3. Any widening of an existing roadway, either to add traveled way, paved shoulder or bikeway, the pavement section shall be in accordance with the attached Standard Plans for that classification of roadway.
4. In cut areas, a system to collect drainage shall be installed behind the sidewalk.
5. For off-shoulder walkways, asphalt concrete pavement shall be modified by elimination of the coarse aggregate; i.e. substitute the 3/8" screen for the 5/8 inch screen.

3-402 Requirements for Residential Streets on Poor Sub-grade

The minimum material thickness as indicated on the Standard Plans is not acceptable if there is any evidence of instability in the sub-grade. This includes free water, swamp conditions, fine-grained or organic soil, slides or uneven settlement. If there are any of these characteristics, the soil shall be sampled and tested sufficiently to establish a pavement design that will support the proposed construction. Any deficiencies, including an R-value of less than 55 or a CBR of less than 20, shall be fully considered in the design. Remedial measures may include, but are not limited to, a stronger paved section, a strengthening of sub-grade by adding or substituting fractured aggregate, asphalt treated base, installing a geotextile, controlled density fill (CDF), more extensive drainage or a combination of such measures. Both the geotechnical report and the resulting pavement design will be subject to review and approval by the Public Works Director or designee. Proposed pavement design to be by an accomplished Geotech certified in the State of Washington.

3-403 Arterials and Commercial Access Streets

Any pavement for arterials and commercial access streets shall be designed using currently accepted methodology that considers the load bearing capacity of the soils and the traffic-carrying requirements of the roadway. Plans shall be accompanied by a pavement thickness design based on soil strength parameters reflecting actual field tests and traffic loading analyses. The analysis shall include the traffic volume and axle loading, the type and thickness of roadway materials and the recommended method of placement. Pavement sections shall not be less than those required for

neighborhood collectors. Shoulders shall be constructed to the same structural section as the roadway.

3-404 Materials & Lay-Down Procedures

Shall be in accordance with WSDOT Standard Specifications and the following requirements:

A. All base course shall be ATB except for private roads.

B. During surfacing activities utility covers in roadway shall be adjusted in accordance with Section 3-704.

C. ATB shall be used, and the final lift of asphalt shall not be placed for a minimum of six months or 80% of plat build out to allow time for the observation and repair of failures in the subgrade and ATB.

D. Asphalt pavers shall be self contained, power propelled units. Truck mounted type pavers shall only be used for City maintenance and paving of irregularly shaped or minor areas as approved by the Public Works Director or designee, or as follows:

1. Pavement widths are less than eight feet; and
2. Length of pavement is less than 150 feet.

E. If half or full street grind and overlay is required and existing road section is found to be inadequate for grinding and/or drainage flow, road section shall be reconstructed to meet the corresponding road section per the standard plans.

3-405 Construction Control in Developments

The provisions of Section 2-03 of the WSDOT Specifications shall apply in all respects to development construction unless otherwise noted. The following elements are mentioned for clarification and emphasis:

A. Compacting Earth Embankments

Compaction of the top two feet of fill subgrade shall meet a minimum 95% of maximum density in accordance with the WSDOT Specifications Section 2-03.3(14)C-Method B. Subgrade fill below the top two feet shall be compacted to 90% of maximum density.

B. Testing for Density

1. Prior to placing any surfacing material on the roadway, the developer/contractor shall provide density test reports certified by a professional engineer registered in the State of Washington. Optimum moisture content and maximum density shall be determined by methods cited in Section 2-03.3(14)D of the WSDOT Specifications. A minimum of

one test is required for every two hundred linear feet, for subgrade and embankment. Test location in cut sections, shall be at subgrade. For work to be accepted, and prior to paving, tests must show consistent uniform density in conformance with these Standards.

2. Density testing for asphalt pavement shall at a minimum be 1 test per 200 lineal feet, taken in a random pattern. The Public Works Director or designee reserves the right to require the developer/contractor to core the asphalt pavement to verify depth and density.
3. Density requirements for all trenches are included in Section 3-703 of these standards.

C. Other Requirements

1. As-builts of the drainage features are required to be approved prior to paving. Any corrective action needed after review by the City must be undertaken prior to paving.
2. Prior to any site construction involving clearing, loggin, or grading, the site/lot clearing limits shall be located and field identified on the approved plans. The developer/project engineer is responsible for water quality on the project site, which includes establishing a water quality monitoring program. The project engineer's name and telephone number shall be listed on the approved construction drawings.
3. The devloper shall be responsible to provide suitable materials for construction in accordance with the WSDOT Specifications and these Standards. The devleoper shall also provide all required materials certifications.
4. Prior to acceptance by the City, the developer/contractor shall provide certification by a registered engineer for the following areas:
   (a) Quality and density of embankment material
   (b) Quality and density for trench backfill materials
   (c) Quality, thickness, and density of all surfacing and base materials, for both roadways and sidewalks
   (d) Quality of concrete and concrete items.
5. The Public Works Director or designee reserved the right to reject all non-conforming materials.

3-406 Pavement Markings, Markers, Pavement Tapers, and Signage

Pavement markings, markers or striping shall be used to delineate channelization; lane endings, crosswalks and longitudinal lines to control or guide traffic see standard plan. The Public Works Director or designee shall approve channelization plans or crosswalk locations. All public roadways

shall have pavement marking.

Channelization shall be required when through traffic is diverted around a lane or obstacle; and when connecting full width streets with different cross sections; and when extending an existing street with a new cross section different than the existing one. The channelization shall provide tapers equal in length to the value derived from the following formula.

$$L = \frac{WS^2}{60}$$ where

L = length of taper

W = width of diversion from the road centerline or the original alignment of travel or the offset distance, as applicable.

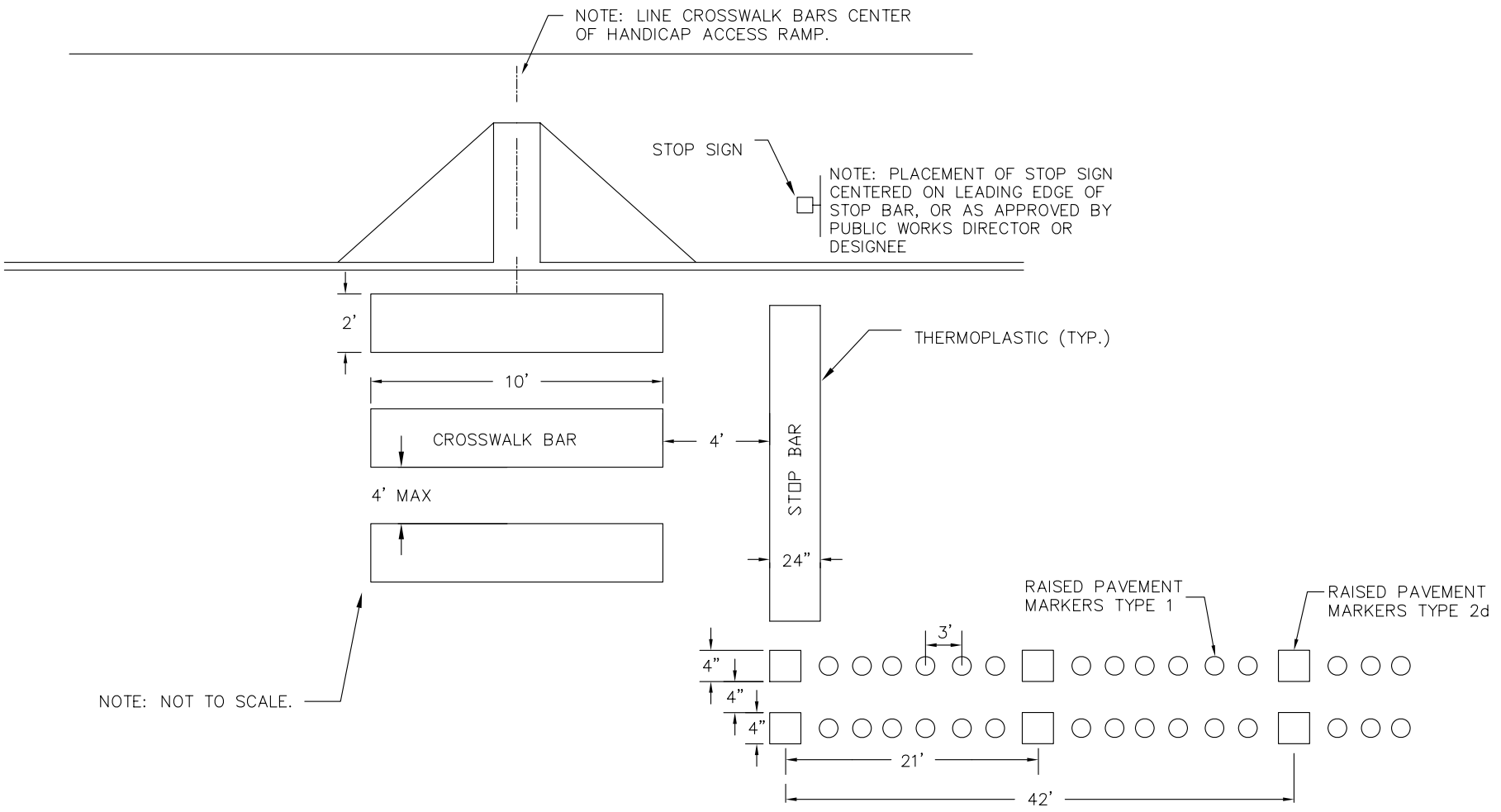
S = speed in miles per hour.

Channelization shall also be required to redirect traffic back to their original alignment.

All channelization shall be designed per the WSDOT Design Manual.

All pavement markings shall be laid out with spray paint and approved by the Public Works Director or designee before they are installed. Approval may require a three working day advance notice to have field layout approved by the Public Works Director or designee or to make arrangements to meet the Public Works Director or designee on site during the installation.

All signage shall be designed in conformance with the current version of the MUTCD. The channelization plan shall show all signage.



APPROVED BY

MARYSVILLE CITY ENGINEER DATE

INTERSECTION PAVEMENT MARKERS PLACEMENT

CITY OF Marysville WASHINGTON

STANDARD PLAN 3-406-001

LAST REVISED 10/04/06

Road Elements and Roadside Features

3-500 Roadside Features

3-501 Rock Facings

A. Rock facings may be used for the protection of cut or fill embankment up to a maximum height of eight feet above the keyway in stable soil conditions which will result in no significant foundation settlement or outward thrust upon the walls. See Standard Plans 3-501-001 through 3-501-004. For heights over eight feet above the keyway or when soil is unstable, a structural wall of acceptable design shall be used. As an exception, rock-facing heights may exceed eight feet to a limited extent based on favorable soil analyses and a design by a geotechnical Engineer or other professional Engineer qualified in rock wall design, subject to approval by the Public Works Director or designee. Terracing of rockeries is subject to approval by the Public Works Director or designee.

B. Materials

1. Size categories shall include:
   Two-man rocks (200 to 700 pounds), 18"-28" in average dimension;
   Three-man rocks (701 to 2000 pounds), 28-36" in average dimension; and
   Four-man rocks (2001 to 4000 pounds), 36-48" in average dimension.

   Four-man rocks shall be used for bottom course rock in all rock facings over six feet in height.

2. The rock material shall be as nearly rectangular as possible. No stone shall be used which does not extend through the wall. The quarried rock shall be angular, hard, sound, durable and free from weathered portions, seams, cracks and other defects. The rock density shall be a minimum of 160 pounds per cubic foot, measured according to WSDOT Test Method 107 (Bulk Specific Gravity - SSD basis). Additionally, rock subjected to the U.S. Army Corps of Engineers Test Method CRD-C-148 ("Method of Testing Stone for Expansive Breakdown on Soaking in Ethylene Glycol") must have less than 15 percent breakdown.

C. Keyway

A keyway consisting of a shallow trench of minimum 12-inch depth shall be constructed the full rockery length, and slightly inclined towards the face being protected. It shall be excavated the full rockery width including the rock filter layer. The keyway subgrade shall be firm and acceptable to the Public Works Director or designee. See Standard Plans 3-501-001 through 3-501-504.

D. Underdrains

1. A minimum six-inch diameter PVC perforated or slotted drainpipe shall be placed in a shallow excavated trench located along the inside edge of the keyway. The pipe shall be bedded on and surrounded by "Gravel Backfill for Drains" (WSDOT 9-03.12(4)) to a minimum height of 18 inches above bottom of pipe. A filter fabric shall surround the gravel backfill and shall have a minimum one-foot overlap along the top surface of the gravel. The Public Works Director or designee may waive this requirement for fabric if shown that soils and water conditions make it unnecessary. See Standard Plans 3-501-001 through 3-501-004.
2. The perforated pipe shall be connected to the storm drain system or to an acceptable outfall.

E. Rock Selection and Placement

Rock selection and placement shall be such that there will be minimum voids and, in the exposed face, no open voids over six inches across in any direction. The final course shall have a continuous appearance and be placed to minimize erosion of the backfill material. The larger rocks shall be placed at the base of the facing so that it will be stable and have a stable appearance. The rocks shall be placed in a manner such that the longitudinal axis of the rock shall be at right angles to the face. The rocks shall have all inclined faces sloping to the back of the facing. Each course of rocks shall be seated as tightly and evenly as possible on the course beneath. The rocks shall be placed so that there are no continuous joint planes either horizontally or vertically. After setting each course of rock, all voids between the rocks shall be chinked on the back with quarry rock to eliminate any void sufficient to pass a two-inch square probe. See Standard Plans 3-501-001 through 3-501-004.

F. Rock Filter Layers

The rock filter layer shall consist of quarry spalls with a maximum size of four inches and a minimum size of two inches. This material shall be placed to a 12-inch minimum thickness between the entire facing and the cut or fill material. The backfill material shall be placed in lifts to an elevation approximately six inches below the top of each

course of rocks as they are placed, until the uppermost course is placed. Any backfill material on the bearing surface of one rock course shall be removed before setting the next course.

G. Fill Rockery Facing Supporting Roadway Embankment

Embankment behind rockeries exceeding four feet in height above the keyway shall be reinforced with a geosynthetic fabric or geogrid specifically manufactured for soil reinforcement, designed on a project specific basis by a qualified engineer, See Standard Plan 3-501-004.

H. Sidewalks above Rockery Facings

When a sidewalk is to be built over a rock facing, the top of the facing shall be sealed and leveled with a cap constructed of cement concrete Class 3000 in accordance with the applicable provisions of Section 6-02 of the WSDOT Standard Specifications, but with reduced water content resulting in slump of not over two inches. See Standard Plan 3-501-003.

I. Fences and Handrails

A chain link fence or metal handrail shall be installed when rockery is 30 inches or greater in height. See Standard Plan 3-501-001 through 3-501-008.

3-502 Side Slopes

A. Side slopes shall generally be constructed no steeper than 4:1 on both fill slopes and cut slopes. The Public Works Director or designee may approve steeper slopes if soil analyses show that the slopes will be stable. All side slopes shall be designed per the WSDOT Design Manual Clear Zone requirements.

B. Side slopes shall be stabilized by grass sod or seeding or by other planting or surfacing materials acceptable to the Public Works Director or designee.

3-503 Slope, Wall, & Drainage Easements

Either the functional classification or particular design features of a road may necessitate slope, sight distance, and wall or drainage easements beyond the right-of-way line. Such easements may be required by the Public Works Director or designee in conjunction with dedication or acquisition of right-of-way.

3-504 Street Trees & Landscaping

A. Street trees and landscaping should be incorporated into the design of road improvements for all classifications of roads. Such landscaping shall be coordinated

with off-street landscaping required on developer's property under the provisions of City of Marysville Code. Root guard is required for street trees adjacent curb and/or sidewalk.

B. Planting strips are required along all residential access and arterial roadways designated to receive street tree treatment. Design of planting strips must be approved by the Public Works Director or designee and must include a landscaping plan in which plant maintenance, utilities and traffic safety requirements are discussed & specified.

C. Existing trees and landscaping shall be preserved where desirable and placement of new trees shall be compatible with other features of the environment. In particular, maximum heights and spacing shall not conflict unduly with overhead utilities, or root development with underground utilities. If street trees are planted, they shall conform reasonably to the requirements of Standard Plan 3-504-001.

D. New trees shall not include poplar, cottonwood, soft maples, gum, any fruit bearing trees or any other tree or shrub whose roots are likely to obstruct sanitary or storm sewers. New street trees shall not be allowed to obstruct entering sight distance for intersection or driveways. Specific trees to avoid include bigleaf maple, box elder, silver maple, catalpa, London plane, cottonwoods, weeping willows, Douglas fir, western red cedar, western hemlock, deodara cedar, spruces, and pines. See City of Marysville Code.

E. Street tree plans on bus routes shall be reviewed by Community Transit.

3-505 Mail Boxes

A. The responsibilities for location and installation of mailboxes in connection with the construction or reconstruction of City streets are as follows:

1. Public Works Director or designee or his representative will:

   a. Require street improvement plans, whether for construction by the City or by a private builder, to show clearly the designated location or relocation of mailboxes.

   b. Require with this information any necessary widening or reconfiguration of sidewalks with suitable knockouts or open strips for mailbox posts or pedestal.

   c. Require these plans to bear a statement on the first sheet that mailbox locations as shown on these plans have been coordinated with the Marysville post office. This will be a prerequisite to plan approval.

d. Require construction of mailbox locations in accordance with these plans, through usual inspection and enforcement procedures.

e. Require vehicle turnouts for mailboxes along arterial roads or as required by the City Engineer due to public health & safety concerns per Standard Plan 3-505-002.

2. Marysville Post Office will:

a. Designate location and manner of grouping of mailboxes when so requested by the City. Note on the plans the type of mailbox delivery: NDCBU (Neighborhood Delivery and Collection Box Unit). Authenticate by stamp or signature when the data has been correctly incorporated into the plans.

b. Do all necessary coordination with owners or residents involved to secure agreement as to mailbox location and to instruct them regarding mailbox installation.

3. Owners or residents served by mailboxes, at time of original installation, will:

a. If using individual mailboxes, clustered or separate, install and thereafter maintain their own mailboxes as instructed by the Post Office.

4. Builders or their contractors shall:

a. Where there are existing mailboxes and no plans to replace them with NDCBU'S:

When it becomes necessary to remove or otherwise disturb existing mailboxes within the limits of any project, install the boxes temporarily in such a position that their function will not be impaired and in coordination with the Marysville Post Master. After construction work has been completed, reinstall boxes at original locations or at new approved locations as indicated on the plans or as directed by the Public Works Director or designee. Use only existing posts or materials except that any damage caused by the builder or his contractor is to be repaired at the expense of the builder.

b. Where there are existing NDCBU's or plans to install NDCBU'S:

Call Marysville Post Office for approved location.

B. Installation methods are as follows:

1. NDCBU's will be purchased and installed by the Contractor generally in accordance with Standard Plan 3-505-001.

2. NDCBU's shall be Auth-Florence Model 1570 series.

3-506 Street Illumination

A. Illumination will be required on all new roadway construction.

B. Widening of arterials with existing illumination will require maintaining the illumination. Widening to the ultimate roadway width will require illumination designed to current construction practices.

C. Illumination intensity and uniformity shall conform to Table 3-5.01. Luminaire fixtures shall be consistent with fixtures maintained by the local electrical utility.

D. The following City corridors require a specified style of luminaire fixtures as follows:

1. 40th St. NE Extension (SR 9 to 83rd Ave. NE):
   Lumec Renaissance Series color BRTX
2. 4th St. NE (I-5 to Columbia Ave. NE):
   WLS Lighting Systems Jonesville Series color RAL 7022
3. SR 531 (I-5 to 11th Ave. NE):
   Lumec Renaissance Series color BRTX
4. 27th Ave. NE (164th St. NE to 500' north of SR 531):
   Lumec Renaissance Series color BRTX

Fixtures to be as listed or approved equal as determined by the City.

TABLE 3-5.01

ROADWAY CLASSIFICATION	AREA CLASSIFICATION			
	COMMERCIAL	INDUSTRIAL	INTERMEDIATE	RESIDENTIAL
Minor Arterial	2.0*	2.0	1.4	1.0
Collector Arterial	1.2	0.9	0.9	0.6
Neighborhood Collector	0.9	0.6	0.6	0.2

*Average maintained horizontal illumination levels (in foot-candles).

Note: Uniformity Ratios shall meet or exceed 4:1 for light levels of 0.6 fc or more and 6:1 for light levels less than 0.6 fc.

A. Definitions. The terms used in this paragraph are defined as follows:

1. Average horizontal illumination: The term "average horizontal illumination" shall mean the quantity of light measured at the pavement surface and averaged over the traveled lanes expressed in foot-candles.

2. Uniformity ratio: The term "uniformity ratio" shall mean the ratio of the average horizontal illumination to the minimum point horizontal illumination at the pavement surface.
3. Roadway classification: The roadway classifications "minor arterial", "collector arterial", and "neighborhood collector" shall be as defined as designated by the City of Marysville.
4. Area classification: The area classifications "commercial", "industrial", "intermediate" and "residential" are defined as follows:
   a. Commercial: That portion of a municipality in a business development where ordinarily there are large numbers of pedestrians and a heavy demand for parking space during periods of peak traffic or a sustained high pedestrian volume and a continuously heavy demand for off-street parking space during business hours. This definition applies to densely developed business areas outside of, as well as those that are within, the central part of a municipality.
   b. Industrial: That portion of a municipality in a business development, normally manufacturing, warehousing or wholesale oriented, where ordinarily there are few pedestrians and a low parking turnover, but there is a large amount of truck, multiple axle truck, and trailer traffic.
   c. Intermediate: That portion of a municipality which is outside a downtown area but generally within the zone of a business or industrial development, often characterized by moderately heavy nighttime pedestrian traffic and a somewhat lower parking turnover than is found in a commercial area. This definition encompasses densely developed apartment areas, hospitals, public libraries, and neighborhood recreational centers.
   d. Residential: A residential development or a mixture of residential and commercial establishments characterized by few pedestrians and a low parking demand for turnover at night. This definition includes areas with single family homes, townhouses, and/or small apartments. Regional parks, cemeteries, and vacant land are also included.

   The City of Marysville shall determine the area classification for specific areas.

3-507 Survey Monuments

A. All existing survey monuments, which are disturbed, lost, or destroyed due to land disturbance shall be referenced and re-established bya land surveyor registered in the State of Washington at the expense of the responsible contractor or developer.

B. Survey monuments shall be placed or replaced in accordance with recognized good practice in land surveying, and in conformance with Standard Plans 3-507-001 and 3-507-002.

C. Establishment of new monumentation will be required at the expense of the responsible contractor or developer.

3-508 Roadway Barricades

Temporary and permanent barricades shall conform to the standards described in Section 6F.63 of the Manual on Uniform Traffic Control Devices (MUTCD) and Standard Plan 3-508-001.

A. Type I or Type II barricades may be used when traffic is maintained through the area being constructed/reconstructed.

B. Type III barricades shall be used when roadways and/or proposed future roadways are closed to traffic. Type III barricades may extend completely across a roadway (as a fence) or from curb to curb. Where provision must be made for access of equipment and authorized vehicles, the Type III barricades may be provided with movable sections that can be closed when work is not in progress, or with indirect openings that will discourage public entry. Where job site access is provided through the Type III barricades, the developer/contractor shall assure proper closure at the end of each working day.

C. In the general case, Type III permanent barricades shall be installed to close arterials or other through streets hazardous to traffic. They shall also be used to close off lanes where tapers are not sufficiently delineated.

D. Type III barricades shall be used at the end of a local access street terminating abruptly without cul-de-sac bulb or on temporarily stubbed off streets. Each such barricade shall be used together with an end-of-road marker and shall include a sign stating that the road will be extended in the future.

E. Permanent Type III Baricades shall be retroreflective white and retroreflective red.

3-509 Bollards

When necessary to deny motor vehicle access to an easement, tract, or trail, except for maintenance or emergency vehicles, the point of access shall be closed by a line of bollards. These shall include one or more fixed bollards on each side of the traveled way and removable, locking bollards across the traveled way. Spacing shall provide one bollard on centerline of trail and other bollards spaced at minimum 50 inches on center on trails 10 feet wide or less. Spacing shall be 60 inches on center on trails wider than 10 feet. Bollard design shall be in accordance with Standard Plan 3-509-001 or other design acceptable to the Public Works Director or designee or Public Works Director or designee. No fire apparatus access roads shall be blocked in this manner without the concurrence of the Fire Marshal. Bollards shall be located at least 10 feet laterally from the paved edge of roadway.

3-510 Guardrail/Embankment Heights

Guardrail installations shall conform to WSDOT/APWA Standard Plan C-1, Beam Guardrail Type 1 and C-2, Guardrail Placement. End anchors shall conform to WSDOT/APWA Standard Plan C-6, Beam Guardrail Anchor Type 1.

Evaluation of embankments for guardrail installations shall be in accordance with Figure 710-6 of the WSDOT Design Manual.

3-511 Off-Street Parking Spaces

Specifications for the number and type of off-street parking spaces required shall conform to the City of Marysville Municipal Code.

3-512 Roadside Obstacles

Roadside obstacles in the right-of-way shall be located so that adequate clear zones are provided.

1) Clear zone standards for roads with posted speeds of 35 mph or less shall be:
   i. 2 feet beyond the face of curb, (curb section) or
   ii. 10 feet beyond the edge of traveled way (shoulder section).
2) Clear zone standards for roads with posted speeds greater than 35 mph shall comply with Chapter 7 of the WSDOT Design Manual.
   i. New roadside features that could present a public hazard shall be placed outside of clear zone areas unless approved by the Engineer.
   ii. Existing features located inside clear zones should be relocated unless approved by the Engineer.
   iii. Installation of poles and other aboveground appurtenances will not be permitted in sidewalks, walkways or bikeways unless approved by the Engineer. As specified in the WSDOT Design Manual, there shall be an unobstructed vertical clearance of at least 7 feet above the surface of any

sidewalk or walkway and 8 feet above any bikeway.

3-513 Concrete Sidewalks

A. Cement concrete sidewalks shall be required on all arterials, neighborhood collectors, local access streets, and mixed-use district, business and industrial access streets. Sidewalks shall be constructed on both sides of the roadway.

B. Sidewalks shall be constructed:

1. Next to the curbs unless planting strips are part of the design and are approved by the Public Works Director or designee as part of a landscaping plan.
2. Back of planting strips where planting strips are to be constructed,
3. At least five feet wide on residential and commercial access streets. This means five feet clear of mailboxes or other obstructions, except where approved as a variance.
4. At least seven to ten feet wide:
    a. In business/commercial districts where most of the store frontage is within 80 feet of the street right-of-way.
    b. Within the curb radius returns of all arterial intersections where curb ramps are required.
    c. Within designated bus zones to provide a landing area for wheel chair access to transit services.
5. With a specified width greater than eight feet when the Public Works Director or designee determines it is warranted by expected pedestrian traffic volume.

C. When portland cement concrete sidewalks are constructed, specifications for joints shall be in accordance with Section 3-515 and Standard Plan 3-515-001.

D. See Standard Plan 3-513-001 for cement concrete sidewalk transition to asphalt shoulder.

E. Sidewalks shall not exceed maximum grade permitted for slope standards of the ADA.

3-514 Curbs, Gutters and Sidewalks

A Subgrade compaction for curbs, gutters, and sidewalks shall meet a minimum 95 percent of maximum density (modified proctor).

B. Base material shall consist of 2" compacted depth crushed surfacing base course.

C. Cement concrete for curbs, gutters, and sidewalks shall be Class 3000, furnished and placed in accordance with the WSDOT Standard Specifications and Standard Plans 3-514-001. Cold weather precautions as set forth in WSDOT Standard Specifications shall apply.

D. Extruded cement concrete curb shall be anchored to existing pavement by either steel tie bars or adhesive in conformance with WSDOT Standard Specification Section 8-04.

E. Extruded asphalt curbs shall be anchored by means of a tack coat of asphalt in accordance with WSDOT Standard Specification Section 8-04.

F. Existing Sidewalk Replacement shall be determined per Standard Plan 3-514-002.

G. Low Impact Flow Through Curb or approved alternate per Standard Plan 3-514-003 may be used in Low Impact Development applications and requires City Engineer or designee approval.

H. Rolled curb may be installed in special circumstances such as infill with rolled curb on both sides, cul-de-sacs, and PRD's that do not allow adequate driveway spacing for vertical curb tapers. Rolled curb acceptance is on a case-by-case basis and requires City Engineer or designee approval.

3-515 Expansion and Dummy Joints

See Standard Plan 3-515-001.

A. An expansion joint consisting of 3/8" x 2-1/2" premolded joint material shall be placed around fire hydrants, poles, posts, and utility castings and along walls or structures in paved areas. Joint material shall conform to the requirements of ASTM D994 (AASHTO M33).

B, Expansion joints shall be placed in curbs, sidewalks, and driveway aprons at a minimum of 15 foot intervals and at sides of drainage inlets.

C. Dummy joints in sidewalk shall be located so as to match the joints in the curb whether sidewalk is adjacent to curb or separated by planting strip.

D. Tool marks consisting of 1/4" V-grooves shall be made in sidewalk at five-foot intervals intermediate to the expansion joints.

E. As alternative to expansion joints around structures, reinforcing bars may be embedded in concrete on four sides of structures.

F. Interface between curb and adjacent sidewalk on integral pour construction shall be formed with 1/4" radius edging tool. On separate pour construction an expansion joint consisting of 3/8" x 2-1/2" of premolded joint material shall be placed between the curb or thickened edge and the adjacent sidewalk.

3-516 Curb Ramps

On all streets with vertical, ramped sections to facilitate passage of handicapped persons shall be constructed through curb and sidewalk at street intersections and other crosswalk locations. See Standard Plan 3-516-001. Where a ramp is constructed on one side of the street, a ramp shall also be provided on the opposite side of the street. Curb ramps shall be positioned so that a ramp opening is situated within the marked crosswalk or crossing area if unmarked. Curb ramps shall meet all ADA standards including maximum grade and cross-slope requirements. Curb ramps shall be design and constructed in accordance with the latest WSDOT standard plans. Dual ramp layouts are preferred unless technically infeasible.

3-517 Concrete Steps, Metal Handrail and Handicapped Access Ramps

A. Steps shall only be used where acceptable alternative access is available for handicapped access and there is a need for a separate stairway. Where used, concrete steps shall be constructed in accordance with Standard Plan 3-501-006 or other design acceptable to the Public Works Director or designee and consistent with the WSDOT Standard Specifications. Handrails, whether for steps or other applications, shall be provided in accordance with Standard Plans 3-501-001 and the WSDOT Standard Specifications.

B. Ramps used to provide handicapped access shall be no steeper than 12:1 with a maximum rise of 30 inches between landings. Landings shall have a minimum length of five feet and should be of sufficient width to allow wheelchairs to pass, generally five feet minimum width for two way traffic.

3-518 Asphalt Shoulders

A. Asphalt paved shoulders may be used where approved by the Public Works Director or designee on existing roads to provide for bicycle and pedestrian use and to provide continuity of design. When allowed, paved shoulders shall be placed in conformance with Sections 3-201 and 3-202. Standard Plan 3-518-001 may apply.

B. A four-inch white painted edge line shall delineate between the travel lane and shoulder.

3-519 Separated Walkways, Bikeways and Trails

Separated pedestrian, bicycle and equestrian trails shall be provided where designated in Marysville's Comprehensive Plan or where required by the Public Works Director or designee because of anticipated significant public usage. Separated pedestrian walkways may also be required where the local school district has identified unsafe walking conditions. Separated facilities are typically located on an easement or within the right-of-way when separated from the roadway by a drainage ditch or barrier. Where separate walkways, bikeways, or equestrian trails intersect with motorized traffic, sight distance, marking and signalization (if warranted) shall be as provided in MUTCD. Facilities shall be designed as follows:

A. Separated walkways are designed primarily for pedestrians and are typically located within the right-of-way or easement. Minimum width shall be five feet.

B. Neighborhood pathways are soft surface facilities designed for pedestrians and equestrians. Such pathways shall be a minimum four feet wide with at least one and one-half foot clearance to obstructions on both sides and 10-foot vertical clearance. Pathways shall be designed and located so as to avoid drainage and erosion problems. Pathways shall be constructed of two and one-half inches of crushed surfacing top course or wood chips over cleared native material as approved by the Public Works Director or designee.

C. Multi-purpose trails are typically designated for bicycle and pedestrian use and in general follow a right-of-way independent from any road. Multi. -Purpose trails shall be designed in accordance with the WSDOT Design Manual Section 1020.05(2) and figures 1020-13 & 1020-14.

3-520 Bus Zones and Turn-outs

Permit Applicants and/or Developers on bus routes are required to submit their development plans to the Community Transit Systems Planning Office and the local school district for review prior to submittal for City approval. Community Transit will determine whether transit improvements are appropriate. Improvements may vary from pedestrian accessibility improvements to provision of bus stops, either in-lane stops or pullouts.

Generally, bus pullouts will be specified if (1) Traffic and passenger boarding and departing conditions warrant: (2) Traffic flow would be greatly hindered due to in lane stopping; or (3) The posted speed limit is in excess of 35 mph.

A. Locations For Bus Pullouts

1. Placement of Bus Pullouts on the far side of signalized intersections immediately following the intersection is preferred. When no signalized intersection exists, the pullout should be placed on the far side of the intersection. Sight distance shall be determined by consulting these standards. Distance between pullouts should not be less than 1000 feet.
2. If far side pullouts are not possible, near side pullouts will be evaluated. Mid-block pullouts are generally discouraged.
3. Bus pullouts should be constructed on both sides of a two way street in a complementary pair if possible.
4. Maintaining adequate separation between access point/intersections and bus pullouts can increase the safety and efficiency of both the roadway and the transit service.
5. When locating a bus pullout in reference to existing access points or an access point in reference to an existing bus pullout, the following guidelines need to be taken into consideration:
   a. A minimum distance of 105 feet, 125 feet preferred, should be maintained between the pullout and the access point on arterial roadways and a minimum of 55 feet, 75 feet preferred on non-arterial roads. This distance is measured from the edge of the access point to the front or back of the transit vehicle, whichever end is closer.
   b. Driveways within the limits of a bus pullout are discouraged. Any exception to this requirement will require approval by the Engineer.

B. Design Of Bus Pullouts

Bus pullouts should be designed as depicted in Standard Drawing 3-520-001. All pullout designs must follow applicable guidelines for facilities used by the handicapped (Americans with Disabilities Act). The Community Transit Systems Planning Office should be contacted for specific design questions.

C. Other Design References

1. Chapter 1060 entitled Transit Benefit Facilities, WSDOT Design Manual.
2. A Guide to Land Use and Public Transportation for Snohomish County, Washington, prepared by the Snohomish County Transportation Authority.

3-521 Bikeways

A. Bikeways are generally shared with other transportation modes, although they may be provided exclusively for bicycle use. Bikeways are categorized below based on degree of separation from motor vehicles and other transportation modes. This classification does not denote preference of one type over another. Bikeways are categorized as follows:

Bike Path (Class I): A separate paved multipurpose trail for the principal use of bicycles and other non-motorized modes. Bike paths are 12 feet.

Bike Lane (Class II): A portion of the road that is designated by pavement striping for exclusive bicycle use. Bicycle lanes may be signed as part of a directional route system. Bicycle lanes are five feet wide on a curbed road and minimum four feet wide as a shoulder bike lane.

Wide Curb Lane (Class III): A road that provides a widened paved outer curb lane to accommodate bicycles in the same lane as motor vehicles. Lane width shall be increased at least three feet.

Shoulder: A lane contiguous to the traveled way but separated by a stripe. Typically shared with pedestrians and occasional emergency vehicle access.

Shared Roadway: All roads not categorized above where bicycles share the roadway with motor vehicles.

B. A bikeway shall be provided:

1. Wherever called for in the Comprehensive Plan or Capital Improvement Program.
2. When substantial bike usage is expected which would benefit from construction of a bicycle facility.

C. Striping and signing shall be implemented as follows:

1. Pavement markings shall be installed on bike lanes and paths in accordance with the MUTCD, subject to local modification.
2. The design of all signalized intersections shall consider bicycle usage and the need for bicyclists to actuate the signal.

D. The planning and design of bikeways in any category shall be in accordance with Section 1020 of the WSDOT Design Manual and the AASHTO Guide for the Development of Bicycle Facilities, current edition.

3-522 Medians (Optional Design Feature)

Median width shall be additional to, not part of; the specified width of traveled way. Edges shall be similar to outer road edges: either extruded or formed vertical curb; or shoulder and ditch; except that median shoulders shall be minimum four feet in width. Twenty feet of driveable surface (which includes traveled way and paved shoulders, if any) shall be provided on either side of the median. Median may be grassed, landscaped, or surfaced with stamped Portland Cement Concrete or pavement. Median shall be designed so as not to limit turning radii or sight distance at intersections. No portion of a side street median may extend into the right-of-way for an arterial street. The Public Works Director or designee may require revisions to medians as necessary to provide for new access points and to maintain required sight distance. Non-yielding or non-breakaway structures shall not be installed in medians. Street trees and/or shrubbery may be planted in median subject to the installation of an automatic irrigation system and approval by the Public Works Director or designee and Planning Department.

3-523 School Access

School access required as part of development approval shall be provided by a walkway, concrete sidewalk or full width delineated shoulder unless another alternative is available and approved by the Public Works Director or designee through a road variance request.

3-524 Equestrian Facilities

A. Equestrian facilities adjacent to the traveled way shall be provided where proposed by the Comprehensive Plan or as required by the Public Works Director or designee. Facilities shall be provided as follows:

1. Shoulders adjacent to the traveled way intended for equestrian use shall be surfaced full-width, minimum four feet with eight feet desirable, Surface shall be two and one-half inches of crushed surfacing base course and one and one-half inches of crushed surfacing top course.
2. A separated equestrian trail shall be constructed with an 18 percent maximum grade, 10-foot vertical clearance and a five-foot wide pathway zone. The trail shall be constructed of native soil or, where drainage or erosion problems are present, a minimum of two and one-half inches of crushed surfacing top course on graded and compact native soil. Native soil, which is not free draining, shall be removed and replaced with sand or gravel as necessary to provide a maintainable and well-drained sub-grade. Additional crushed surfacing, cinders or other stabilizing materials shall be required if heavy usage is

anticipated or if there is any evidence of instability in the sub-grade; including free water, swamp conditions, fine-grained or organic soils, slides or uneven trails.

3-525 Traffic Calming

All new residential access streets shall have traffic calming devices. The devices may include but are not limited to neckdowns, chokers, gateways, medians, chicanes, speed tables, speed bumps, traffic circle and raised intersections.

Device	Classification of Street	Spacing	Standard Plan
Neckdowns	Residential Access	Every intersection	3-525-001 & 002
Alternating Parking	Local Access	300 ft.	
Chokers	Neighborhood Collectors	400 ft.	3-525-003
Gateway*	Residential Access	Main Entrance to a development	3-525-004
Chicane	Local Access	mid-block	3-525-005
Speed Table	Residential Access	400 ft.	3-525-006 & 007
Speed Bump	Local Access	300 ft.	3-525-008
Traffic Circle	Residential Access	Every intersection	3-525-010, 011, & 012

Minimum traffic calming shall include neckdowns at residential access streets intersections, alternating parking for local access streets, and chockers for neighborhood collector streets. A gateway treatment may replace the neckdown treatment at the main entrance to a development. Landscaping must be maintained by a homeowners association.

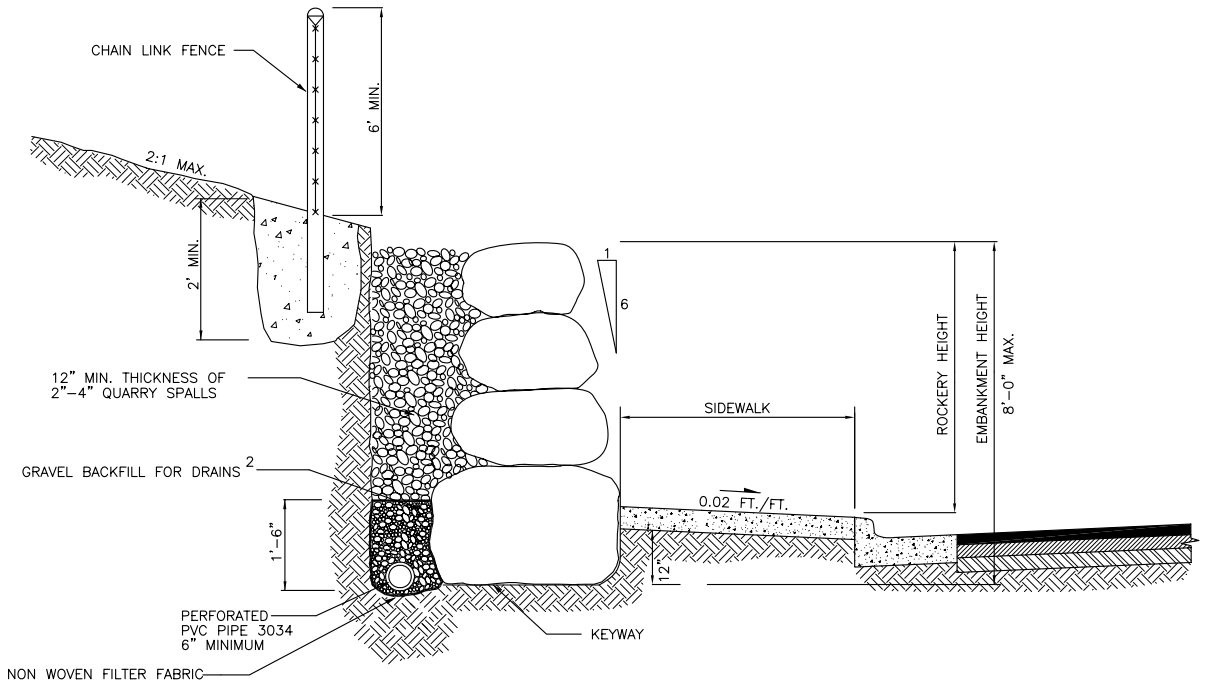
The design and implementation of the traffic calming devices shall be approved by the Public Works Director or designee.

3-526 Traffic Signal Specifications

New installations, upgrades, and retrofits of traffic signals within the City of Marysville shall comply with the latest edition of the Washington State Department of Transportation Standard Specifications for Road, Bridge, and Municipal Construction, Section 8-20 (Illumination Traffic Signal Systems, and Electrical). In addition to the Standard Specification requirements, the system shall include the following:

A. 332 Style signal control cabinet with 8 inch riser.
B. When necessary, a master controller installed in signal controller.
C. A radio interconnect system provided by Encom which meets Snohomish County Public Works specifications.

D. A UPS battery back-up system installed to operate signal controller.
E. A video detection system provided by Traficon. Depending on geometry and the sole discretion of the City Engineer, detection loops may be used. If loops are installed, circular loops are acceptable.
F. LED displays will be required for both vehicle and pedestrian.
G. 3M Opticom preemption systems are required for emergency vehicles.



NOTE:
EMBANKMENT HEIGHT IN EXCESS OF 4'–0" REQUIRES BUILDING PERMIT AND SET OF STAMPED ENGINEERING PLANS

NOTES:

1. WSDOT 9–03.12[4]
2. IF ROCKERY OR RETAINING WALL IS BEHIND ROLLED CURB OR ON A RURAL SECTION, FACE OF ROCKERY OR RETAINING WALL MUST BE BEYOND THE CLEAR ZONE PER WSDOT DESIGN MANUAL.
3. CHAIN LINK FENCE SHALL COMPLY WITH STD. PLAN 3–501–007 AND IS REQUIRED WHEN ROCKERY HEIGHT IS 30" OR GREATER AND ROCKERY IS LOCATED ON PUBLIC RIGHT–OF–WAY OR EASEMENT.
4. MAXIMUM HEIGHT OF ROCKERY IS 8' UNLESS APPROVED BY THE CITY ENGINEER.

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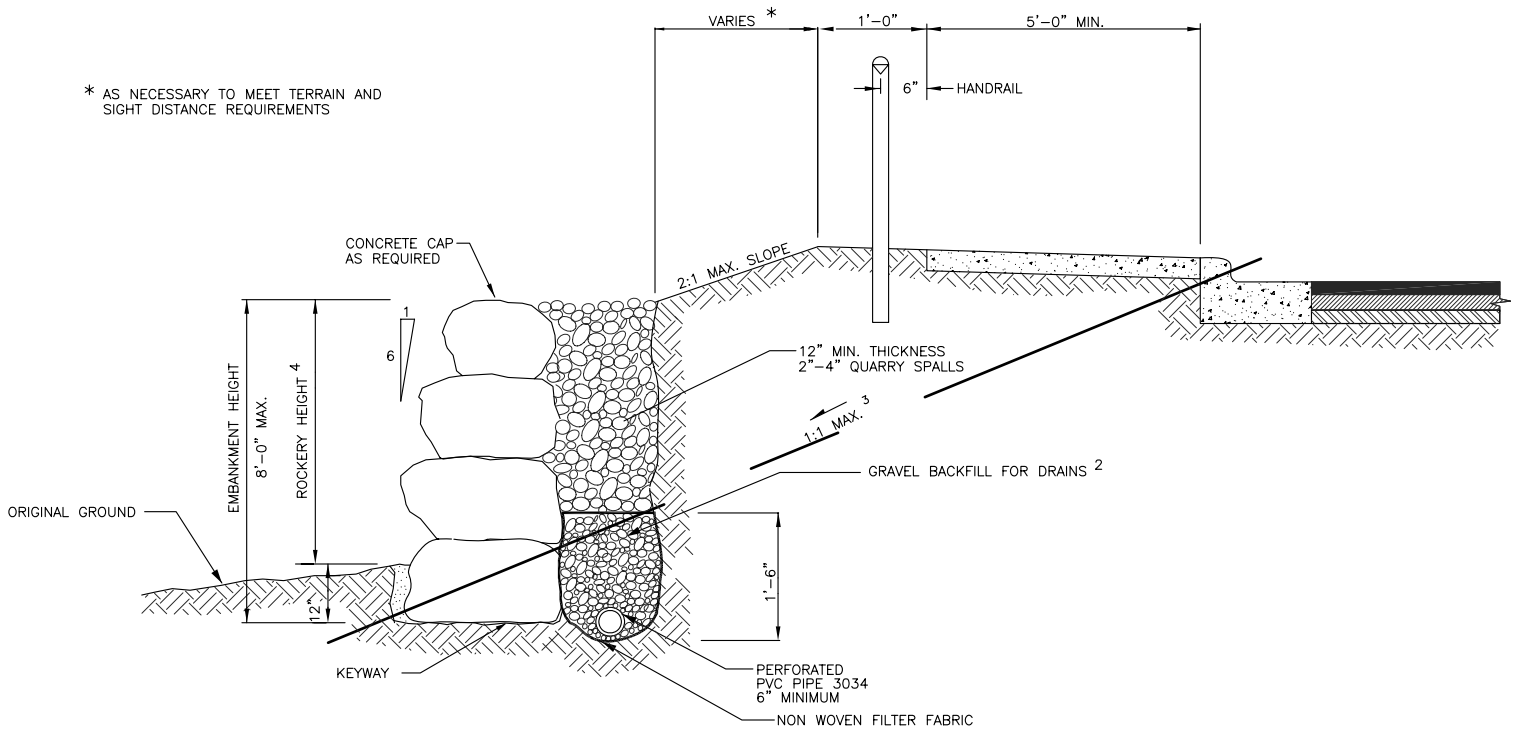
CITY OF Marysville WASHINGTON

ROCK FACING, CUT SECTION

STANDARD PLAN 3–501–001

LAST REVISED 10/04/06



NOTE:
EMBANKMENT HEIGHT IN EXCESS OF 4'-0" REQUIRES BUILDING PERMIT AND SET OF STAMPED ENGINEERING PLANS

NOTES:

1. WSDOT 9-03.12[4].
2. FLATTER SLOPE MAY BE REQUIRED IN LESS STABLE SOIL.
3. HANDRAIL REQUIRED WHEN ROCKERY HEIGHT IS 30" OR GREATER. SEE DWG. NO. 3-501-006.
4. FOR ROCKERY HEIGHTS EXCEEDING 4', SEE DWG. NO. 3-501-004.
5. TRAFFIC BARRIERS MAY BE REQUIRED ON ROADS WITH POSTED SPEED LIMITS OF 35 MPH OR GREATER, WHERE ROCKERY HEIGHTS EXCEED 6'. SEE CHAPTER 7 OF THE WSDOT DESIGN MANUAL.

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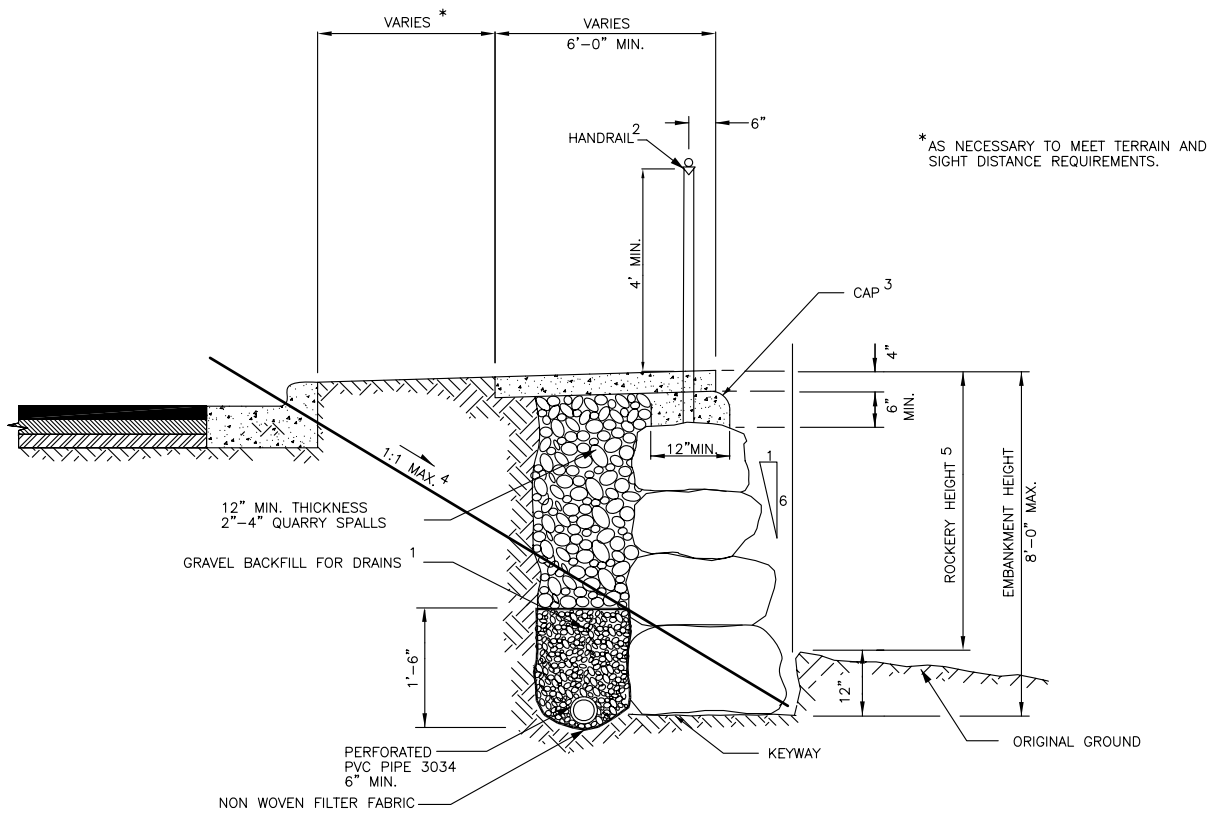
ROCK FACING, FILL SECTION

STANDARD PLAN 3-501-002

LAST REVISED 10/04/06



NOTES:

1. WSDOT 9-03.12[4].
2. HANDRAIL REQUIRED WHEN ROCKERY HEIGHT IS 30" OR GREATER. SEE DWG. 3-501-006
3. CAP SHALL BE CONCRETE CLASS 3000.
4. FLATTER SLOPE MAY BE REQUIRED IN LESS STABLE SOILS.
5. FOR ROCKERY HEIGHTS EXCEEDING 4', SEE DWG. NO. 3-501-004.
6. TRAFFIC BARRIERS MAY BE REQUIRED ON ROADS WITH POSTED SPEED LIMITS OF 35 MPH OR GREATER. SEE CHAPTER 7 OF THE WSDOT DESIGN MANUAL.

NOTE:
EMBANKMENT HEIGHT IN EXCESS OF 4'-0" REQUIRES BUILDING PERMIT AND SET OF STAMPED ENGINEERING PLANS

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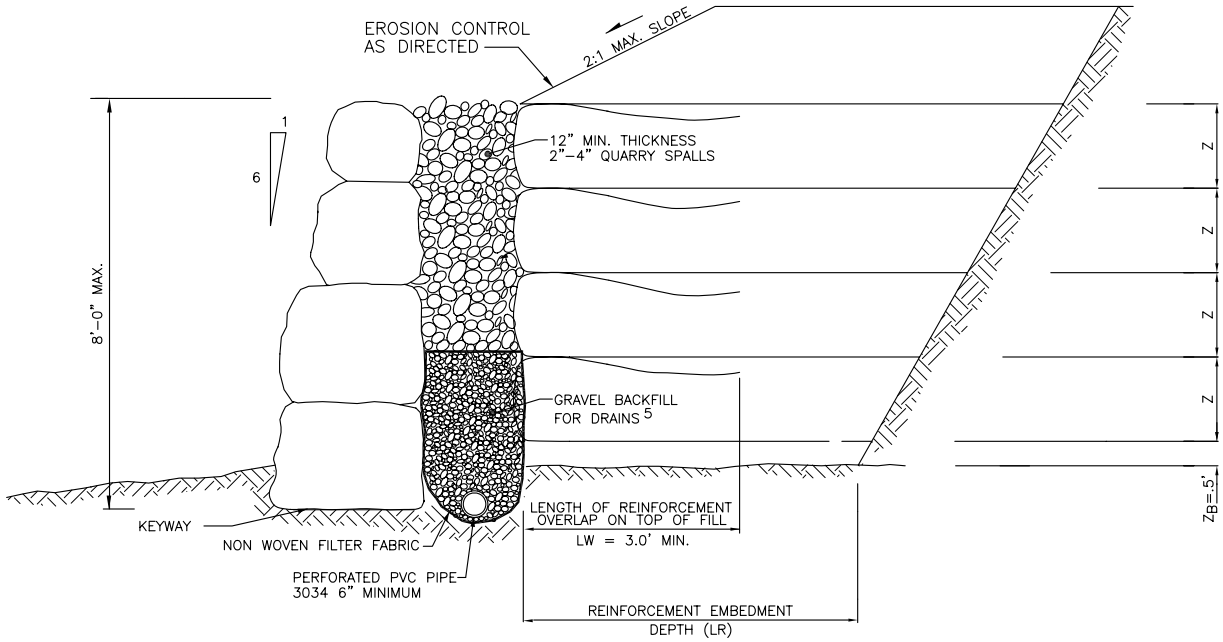
CITY OF Marysville WASHINGTON

ROCK FACING UNDER SIDEWALK

STANDARD PLAN 3-501-003

LAST REVISED 10/04/06



NOTES:

1. ROCKERY FACINGS ARE TO BE CONSTRUCTED PER SEC. 3–501.
2. THE WALL FOUNDATION IS TO BE CLEARED OF ORGANIC MATTER AND DEBRIS AND THE UNDERLYING MINERAL SOIL COMPACTED TO 95 PERCENT OF THE MAX. DRY DENSITY. THE EMBANKMENT MATERIAL IS TO BE GRAVEL BORROW MEETING THE REQUIREMENTS OF 9–03.14 OF THE WSDOT STANDARDS. THE BACKFILL IS TO BE PLACED IN THIN LIFTS, NOT EXCEEDING SIX INCHES IN THICKNESS AND COMPACTED TO 95 PERCENT OF THE MAX. DRY DENSITY.
3. GEOSYNTHETIC FABRIC OR GEOGRID REQUIREMENTS INCLUDING TYPE, VERTICAL SPACING (Z), AND EMBEDMENT (LR), WILL BE DETERMINED ON A ROCKERY BY ROCKERY BASIS BY A PROFESSIONAL ENGINEER.
4. Z_B IS HEIGHT OF FIRST LAYER OF REINFORCEMENT ABOVE COMPACTED SUBGRADE ELEVATION.
5. WSDOT 9–03.12[4]

NOTE:
EMBANKMENT HEIGHT IN EXCESS OF 4'–0" REQUIRES BUILDING PERMIT AND SET OF STAMPED ENGINEERING PLANS

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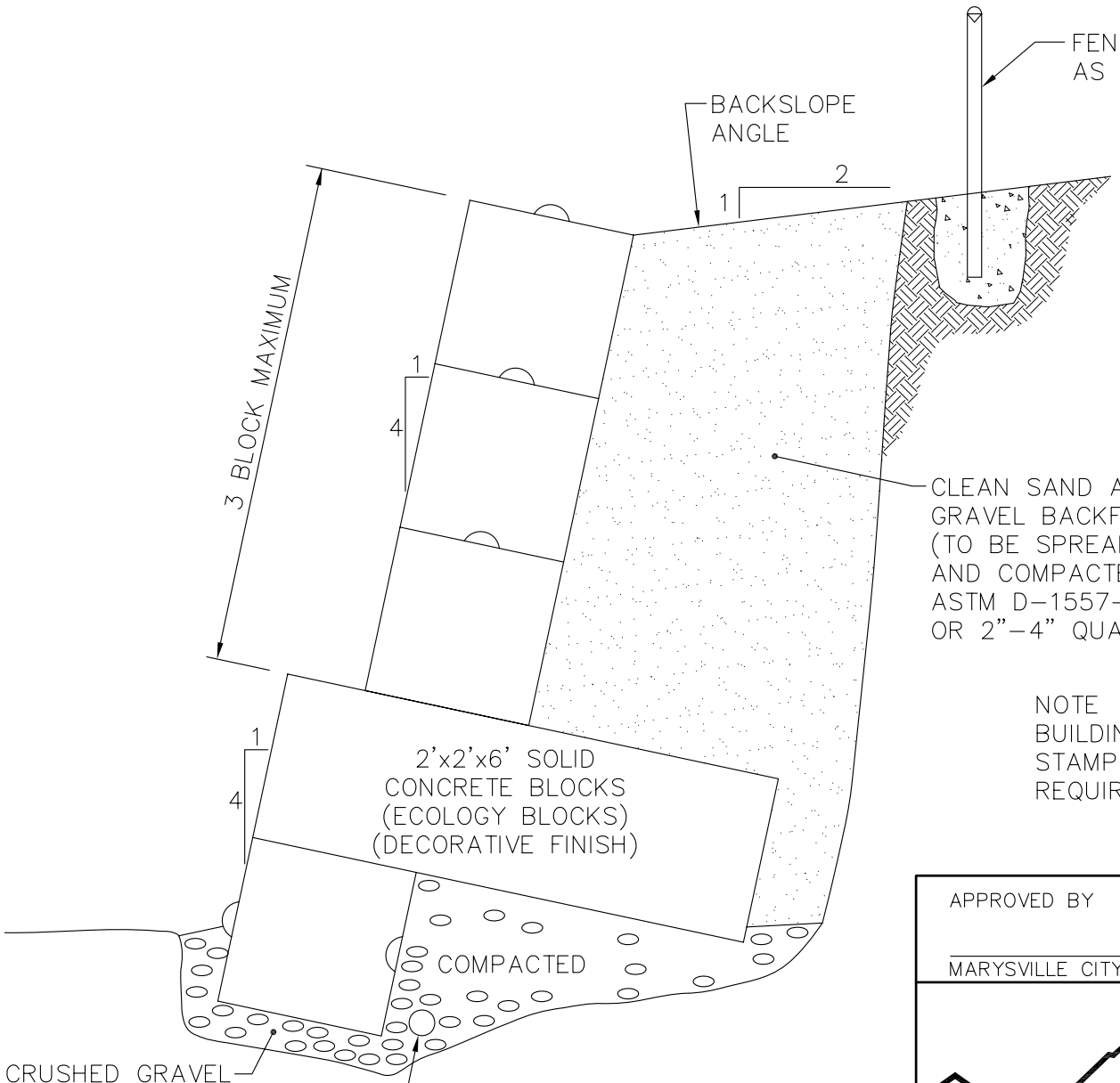
CITY OF Marysville WASHINGTON

ROCK FACING, FILL SECTION REINFORCEMENT IN EXCESS OF 4' HEIGHT

LAST REVISED 10/04/06

STANDARD PLAN 3–501–004



NOTE
BUILDING PERMIT AND SET OF
STAMPED ENGINEERING PLANS
REQUIRED FOR CONSTRUCTION

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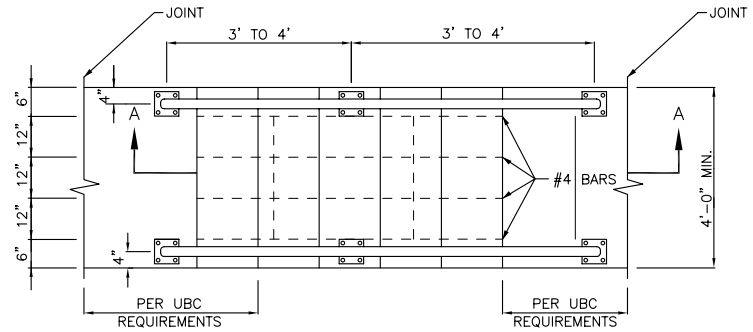
CMU BLOCK WALL

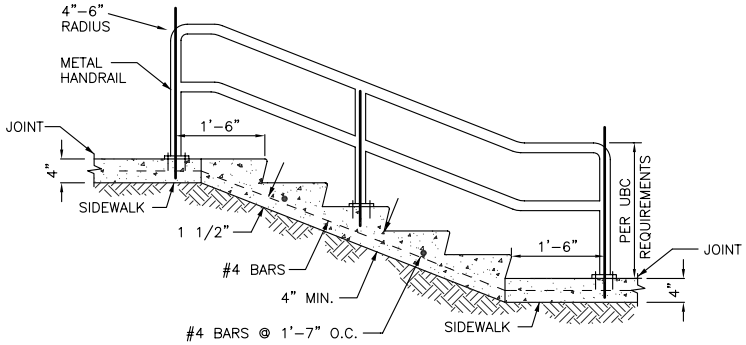
CITY OF Marysville WASHINGTON

STANDARD PLAN 3-501-005

LAST REVISED 10/04/06



CONCRETE STEPS
PLAN



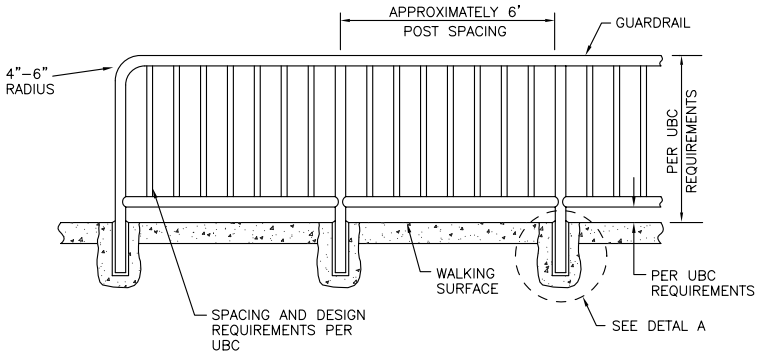
CONCRETE STEPS
SECTION A-A

NOTES FOR CONCRETE STEPS:

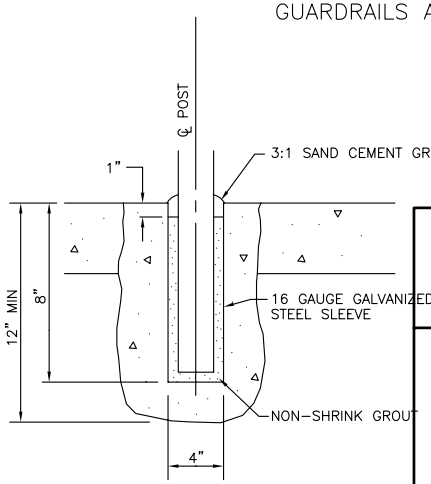
1. CONCRETE: CEMENT CONCRETE CLASS 3000.
2. ALL STEPS: PER UBC REQUIREMENTS.
3. RISERS: PER UBC REQUIREMENTS.
4. TREADS: PER UBC REQUIREMENTS.
5. LOCATION OF METAL HANDRAIL AND GUARDRAIL PER UBC REQUIREMENTS, SEE NOTES BELOW.
6. REINFORCING BARS SHALL MEET THE REQUIREMENTS OF ASTM A-615, GRADE 60 .
7. SEE UBC SEC. 3306.
8. MAX. VERTICAL DISTANCE BETWEEN LANDINGS PER UBC REQUIREMENTS.

NOTES FOR HANDRAILS AND PEDESTRIAN GUARDRAILS:

1. GALVANIZED STEEL OR ALUMINUM.
2. ROUND OR OVAL PIPE, SIZE PER UBC REQUIREMENTS.
3. WELDED, WITH SMOOTH SURFACE AND JOINTS.
4. POSTS SET IN CLASS 3000 CONCRETE A MINIMUM OF 8".
5. SEE UBC SEC. 3306.
6. GALVANIZED STEEL OR ALUMINUM GUARDRAILS WHEN GUARDRAILS ARE REQUIRED BY UBC.



PEDESTRIAN GUARDRAIL SECTION



DETAIL A

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CITY OF Marysville WASHINGTON

CONCRETE STEPS, METAL HANDRAIL, & GUARDRAIL

STANDARD PLAN 3-501-006

LAST REVISED 10/04/06

HANDRAILS AND GUARDRAILS (GALVANIZED STEEL)

GALVANIZED HANDRAIL AND GUARDRAIL SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THESE SPECIAL PROVISIONS AND STANDARD DRAWING.

GALVANIZED STEEL HANDRAIL AND GUARDRAIL SHALL CONFORM TO ASTM DESIGNATION A120. ALL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE AWS D1.1–72. AFTER FABRICATION EACH SECTION OF RAILING SHALL BE HOT–DIPPED GALVANIZED WITH A MINIMUM ZINC COATING OF 2 OUNCES PER SQUARE FOOT. ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO GALVANIIZING.

FIELD WELDS SHALL BE GALVANIZED WITH "GALVALLOY" OR APPROVED EQUAL. PAINTING OF WELDS WILL NOT BE PERMITTED.

HORIZONTAL RAILS AND VERTICAL POSTS SHALL BE 2 INCH DIAMETER AND BALUSTERS SHALL BE 1" DIAMETER STANDARD WEIGHT GALVANIZED STEEL PIPE. RAILS, POSTS AND BALUSTERS SHALL BE MACHINE CUT TO PROVIDE A UNIFORM LENGTH PRIOR TO ASSEMBLY.

RAILING SHALL BE ERECTED AND ADJUSTED, IF NECESSARY, TO ASSURE A CONTINUOUS LINE AND GRADE. FINISHED HEIGHT IS TO BE PER UBC REQUIREMENTS ABOVE PEDESTRIAN SURFACE. EXPANSION JOINTS SHALL BE PROVIDED AT INTERVALS SHOWN ON THE STANDARD DRAWING.

HANDRAILS AND GUARDRAILS (ALUMINUM)

ALUMINUM HANDRAIL AND GUARDRAIL SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THESE SPECIAL PROVISIONS AND STANDARD DRAWING.

ALUMINUM HANDRAIL AND GUARDRAIL SHALL BE NATURAL ALUMINUM COLOR.

IF ANODIZATION IS SPECIFIED, ALL ALUMINUM PARTS SHALL BE GIVEN A CLEAR ANODIC COATING AT LEAST 0.0006 INCH THICK AND SHALL BE SEALED TO MEET THE REQUIREMENTS OF ASTM B 136 AND SHALL HAVE A UNIFORM FINISH.

WELDING OF ALUMINUM SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE ALUMINUM, AWS D 1.2".

ALL MATERIALS USED IN THE FABRICATION OF ALUMINUM HANDRAILS AND GUARDRAILS SHALL MEET THE REQUIREMENTS OF ASTM B241 OR B429 ALLOY 6061–T6 SCHEDULE 40(STD. PIPE).

HORIZONTAL RAILS AND VERTICAL SUPPORT POSTS SHALL BE 1.9" OD AND BALUSTERS SHALL BE 1.05" OD. STANDARD WEIGHT ALUMINUM PIPE. RAILS, POSTS AND BALUSTERS SHALL BE MACHINE CUT TO PROVIDE A UNIFORM LENGTH PRIOR TO ASSEMBLY.

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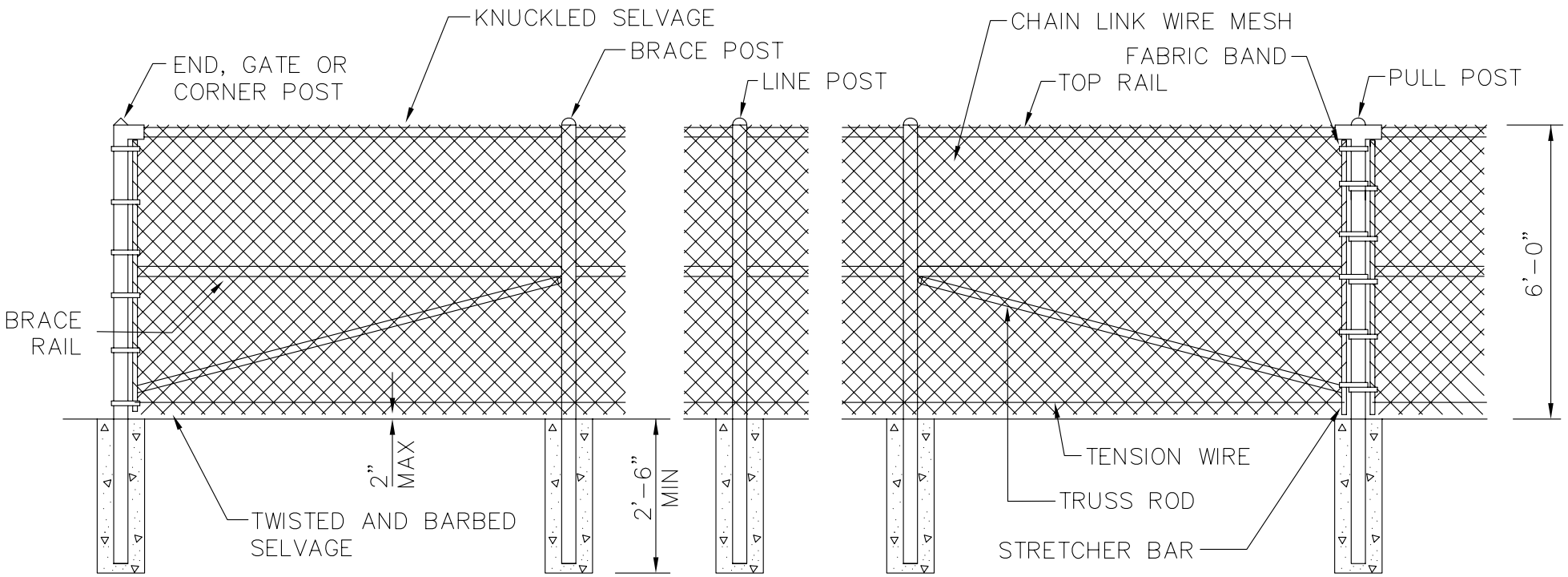
CITY OF Marysville WASHINGTON

HANDRAIL AND GUARDRAIL NOTES

STANDARD PLAN 3–501–006a

LAST REVISED 10/16/01



NOTES:

1. MATERIAL SHALL BE SCHEDULE 40
2. WIRE MESH SHALL BE 9 GAUGE WIRE
3. BARBED WIRE TO BE PLACED ON TOP AS DIRECTED
4. WOOD SLATS MAY BE REQUIRED
5. SCHEDULE 40 IS REQUIRED FOR ALL POSTS FOR FUTURE SLATES AND WIND SHEAR.
6. TENSION WIRE SHALL BE 7 GAUGE
7. ALL CHAIN LINK FENCE SHALL BE BLACK VINYL OR POWDER COATED

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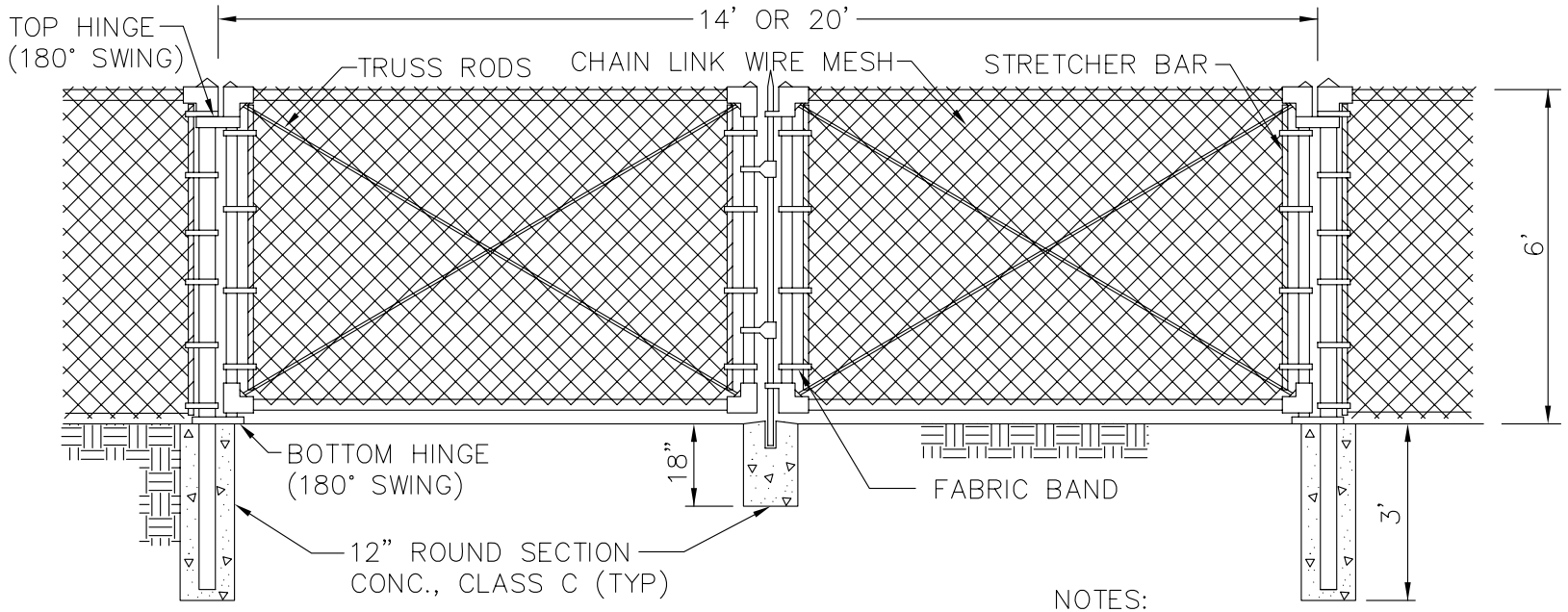
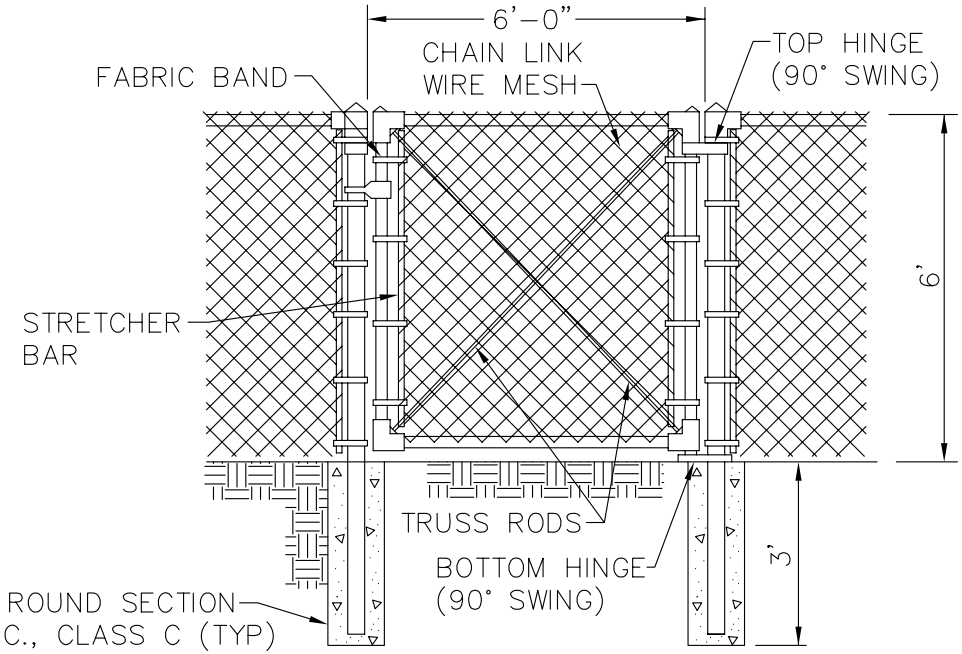
CHAIN LINK FENCE

CITY OF Marysville WASHINGTON

STANDARD PLAN 3-501-007

LAST REVISED 01/02/07





NOTES:

1. FENCE FABRIC SHALL BE SECURED TO GATE FRAMES WITH KNUCKLED SELVAGE ALONG TOP EDGE.
2. MINIMUM POST LENGTH: 8'-8"
3. PROVIDE LOCKING MECHANISM (PADLOCK BY CITY)
4. BARBED WIRE TO BE PLACED ON TOP AS DIRECTED.
5. ALL CHAIN LINK SHALL BE BLACK VINYL OR POWDER COATED

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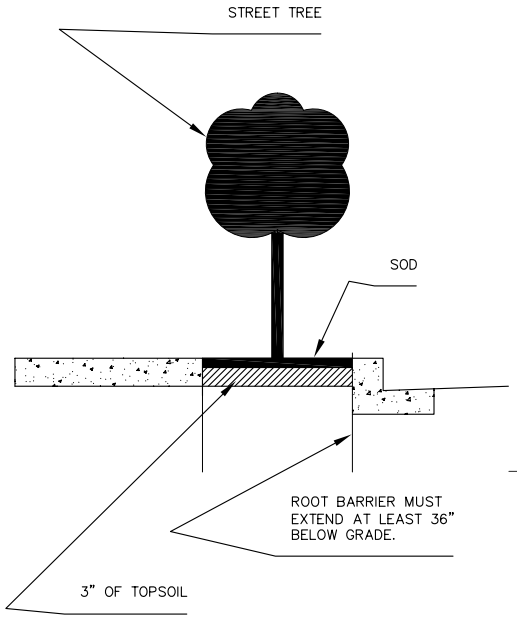
MARYSVILLE CITY ENGINEER DATE

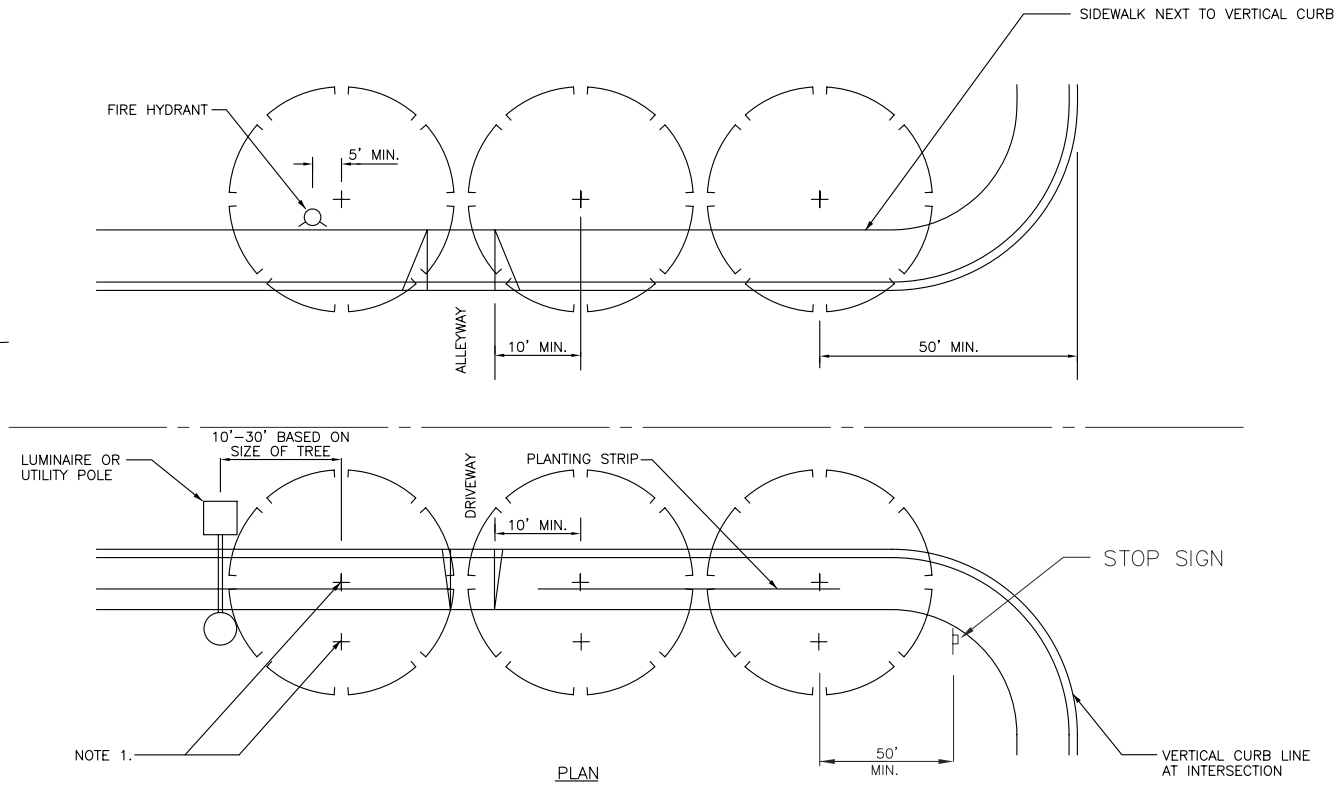
CHAIN LINK GATES

CITY OF Marysville WASHINGTON

STANDARD PLAN 3-501-008

LAST REVISED 10/06/06





PLAN

NOTES:

1. TREES SHALL GENERALLY BE PLANTED BACK OF THE SIDEWALK. PLANTING STRIPS WILL BE APPROVED ONLY AS PART OF A LANDSCAPING PLAN IN WHICH PLANT MAINTENANCE, COMPATIBILITY WITH UTILITIES, AND TRAFFIC SAFETY ARE DULY CONSIDERED.

2. IF PLANTING STRIPS ARE APPROVED:

   A. MIN. DISTANCE FROM CENTER OF ANY TREE TO NEAREST EDGE OF VERTICAL CURB SHALL BE 2 FEET.

   B. TREES SHALL BE STAKED IN A MANNER NOT TO OBSTRUCT SIDEWALK TRAFFIC.

   C. IN CASE OF BLOCK-OUTS, MIN. CLEAR SIDEWALK WIDTH SHALL BE 5 FEET IN RESIDENTIAL OR 8 FEET IN BUSINESS DISTRICTS.

   D. ROOT BARRIERS SHALL BE PRECAST CONCRETE SECTIONS OR SIMILAR IMPERMEABLE DURABLE MATERIAL.

APPROVED BY

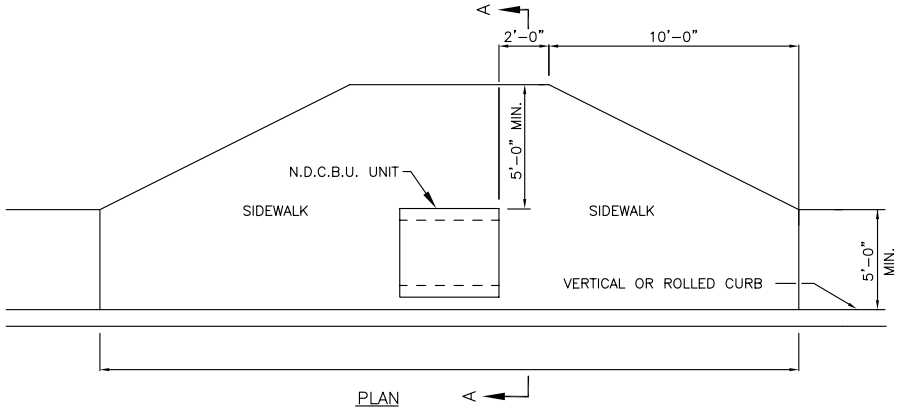
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

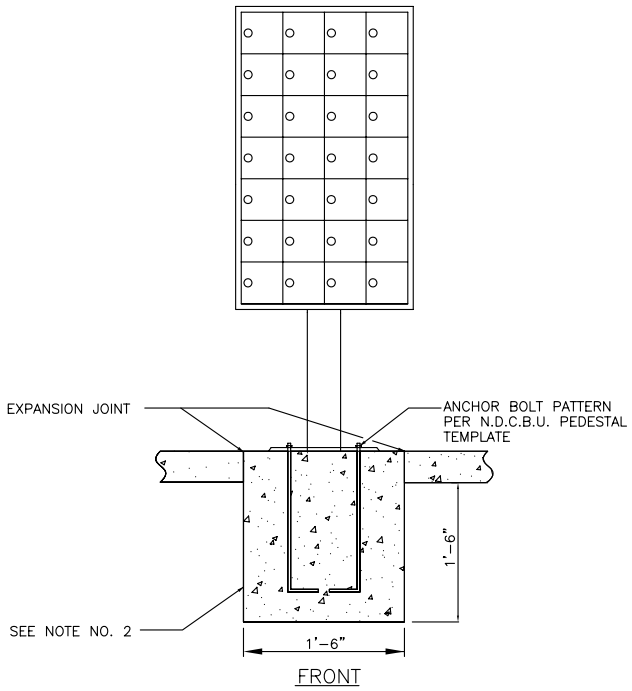
STREET TREE STANDARDS

STANDARD PLAN 3-504-001

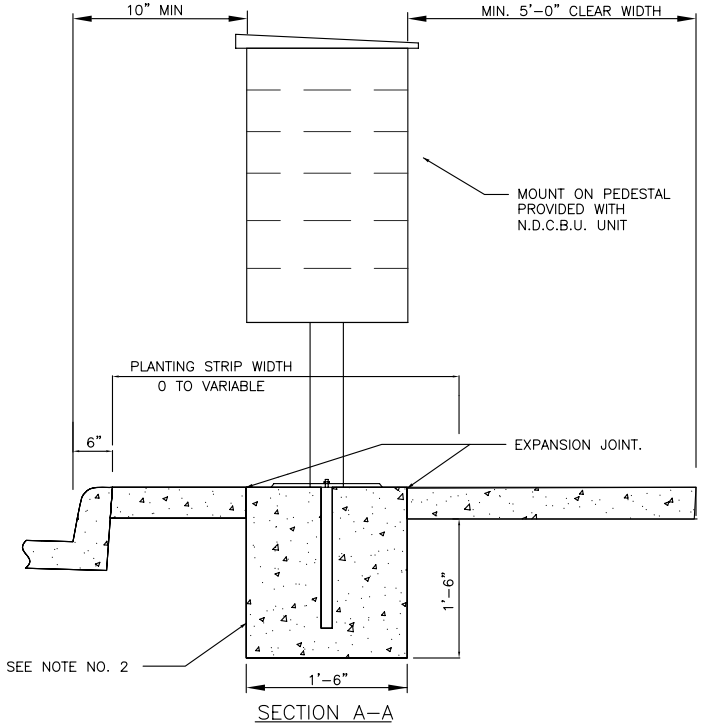
LAST REVISED 10/04/06



PLAN



FRONT



SECTION A–A

NOTES:

1. INSTALLATION OF N.D.C.B.U. (INCLUDING CONSTRUCTION OF BASE) WILL BE DONE BY CONTRACTOR.
2. SEE SEC. 3–505 FOR JOINT REQUIREMENTS.
3. CITY RIGHT–OF–WAY PERMIT REQUIRED.

APPROVED BY

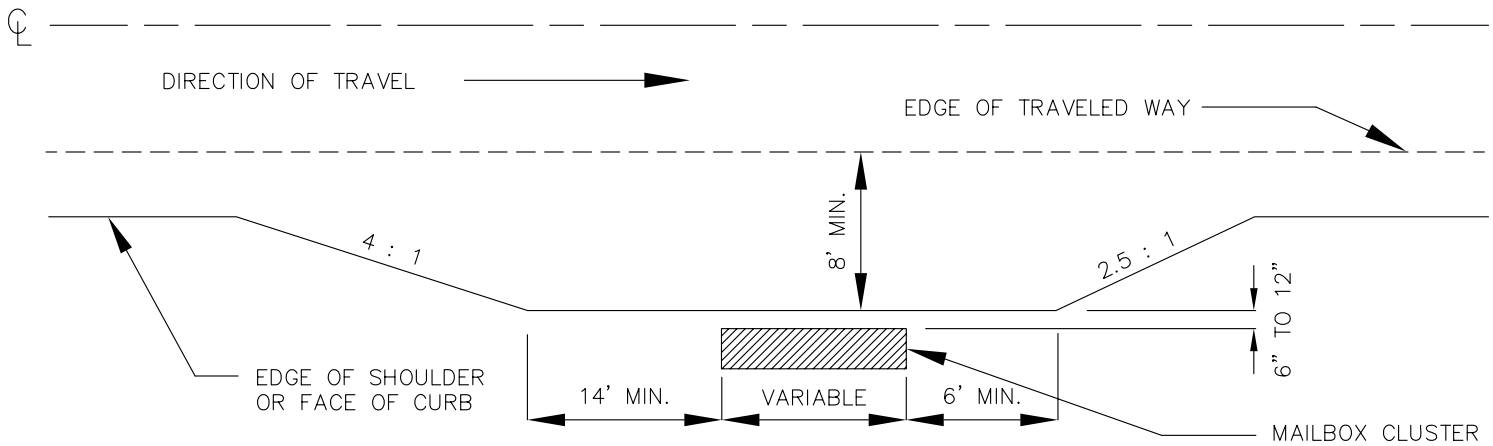
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

NEIGHBORHOOD DELIVERY & COLLECTION BOX UNIT INSTALLATION

STANDARD PLAN 3–505–001

LAST REVISED 10/06/06



NOTES:

1. FOR ARTERIAL ROADS OR AS REQUIRED BY THE CITY ENGINEER.
2. SEE SECTION 3-505

APPROVED BY

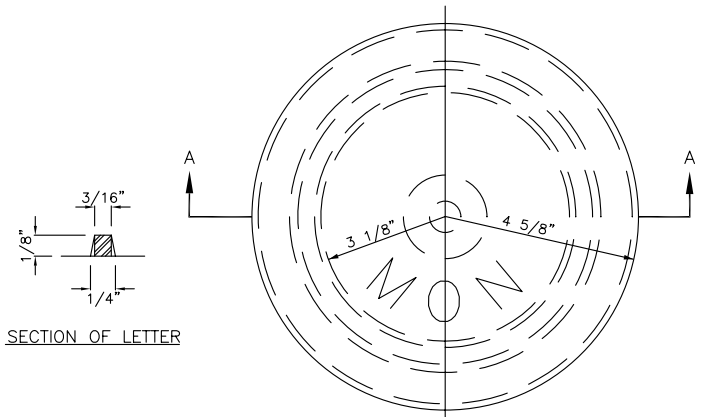
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

MAILBOX TURNOUT

STANDARD PLAN 3-505-002

LAST REVISED 03/23/07



PLAN OF COVER

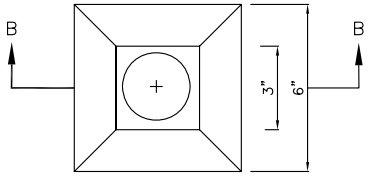
SECTION OF LETTER

NOTES:

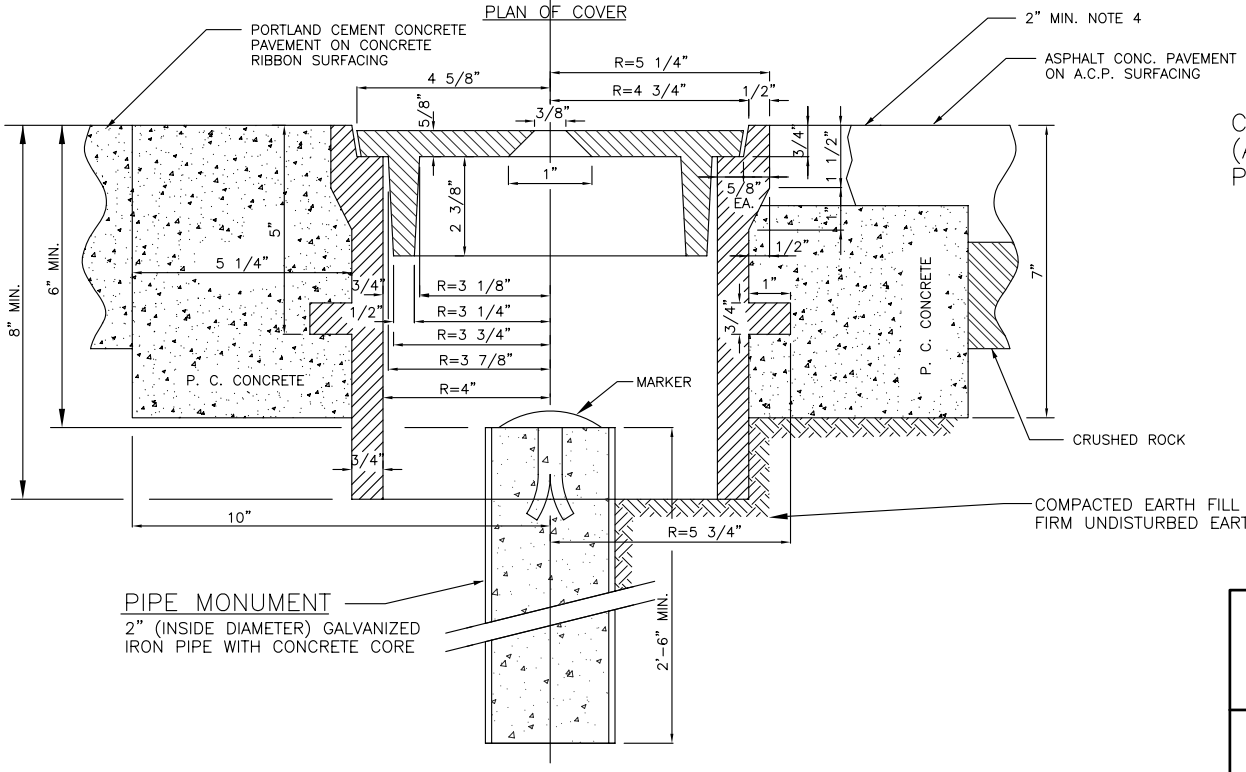
1. CASTINGS SHALL BE GRAY IRON ASTM A48, AASHTO M 105, CLASS 30.
2. COVER AND SEAT SHALL BE MACHINED FOR PERFECT CONTACT AROUND CIRCUMFERENCE AND FULL WIDTH OF BEARING SURFACE.
3. APPROXIMATE WEIGHTS, STANDARD.

CASE	60 LBS
COVER	19 LBS
TOTAL	79 LBS

4. PAVEMENT SHALL BE ASPHALT CONCRETE OR APPROVED SUBSTITUTE.
5. CONCRETE SHALL BE CLASS 4000.

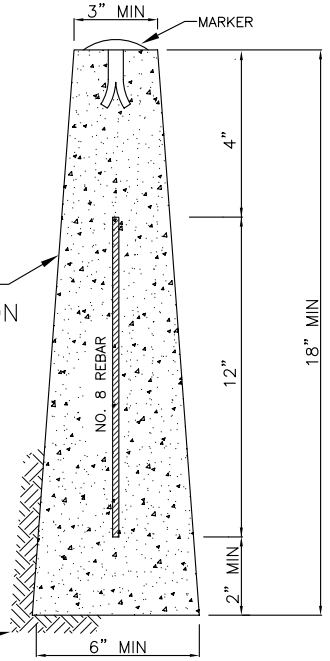


PLAN OF MONUMENT



SECTION A–A

CONCRETE MONUMENT (ALTERNATE TO 2" IRON PIPE)



SECTION B–B

APPROVED BY

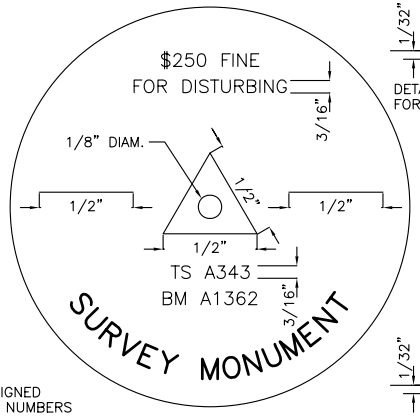
MARYSVILLE CITY ENGINEER DATE

ROADWAY SURVEY MONUMENT W/CASE & COVER

CITY OF Marysville WASHINGTON

STANDARD PLAN 3–507–001

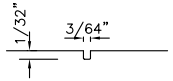
LAST REVISED 10/16/01



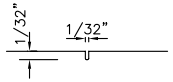
NOTE:

ONLY THE ASSIGNED IDENTIFICATION NUMBERS ARE TO APPEAR ON THE BRASS DISC.

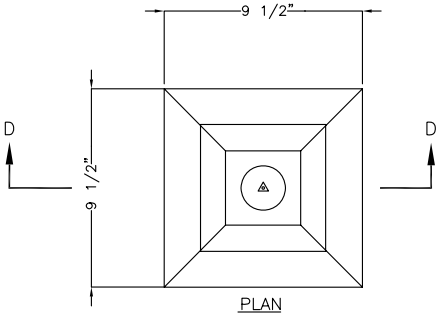
PLAN



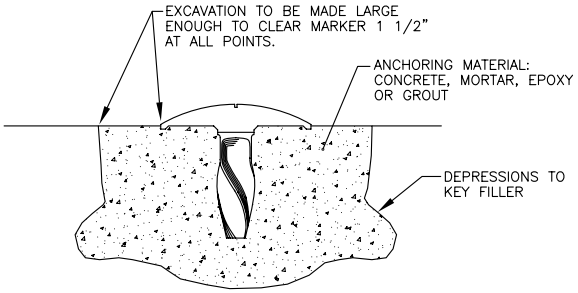
DETAIL OF GROOVE FOR 1/4" LETTERS



DETAIL OF GROOVE FOR 3/16" LETTERS AND LINES

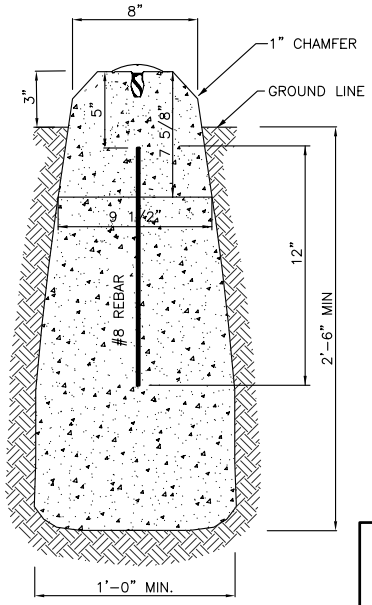


PLAN



THE MARKER OR ADDITIVE TO THE ANCHORING MATERIAL IN THIS TYPE OF INSTALLATION TO BE CAPABLE OF DETECTION BY A FERROUS TYPE METAL DETECTOR.

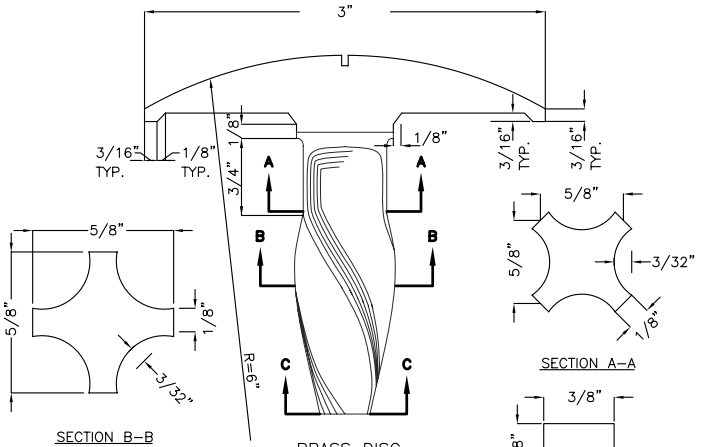
LEDGE ROCK OR
CONCRETE INSTALLATION



GENERAL INSTALLATION
SECTION D–D

NOTES;

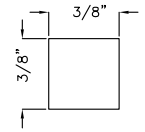
1. THE MARKER SHALL BE CAST OF YELLOW BRASS SAE 41, BRONZE OR ALUMINUM.
2. CONCRETE SHALL BE CLASS 4000.
3. THE HOLE SHALL BE 18" MIN. IN DEPTH. ALL LOOSE MATERIAL SHALL BE REMOVED FROM THE BOTTOM OF THE HOLE SO THAT THE CONCRETE IS ON FIRM, UNDISTURBED EARTH.
4. THE TOP OF THE CONCRETE SHALL BE TROWLED SMOOTH AND THE BRASS DISC SET IN THE CENTER WITH ITS TOP EDGE FLUSH AND LEVEL.
5. USE JUDGEMENT ON DEPTH OF BURY. DO NOT MAKE A HAZARD FROM TRIPPING OVER OF FALLING ON. IF IN SHOULDER OF ROAD BURY BELOW LIKELYHOOD OF BEING GRADED OUT.



SECTION B–B

BRASS DISC
ELEVATION

SECTION A–A



SECTION C–C

APPROVED BY

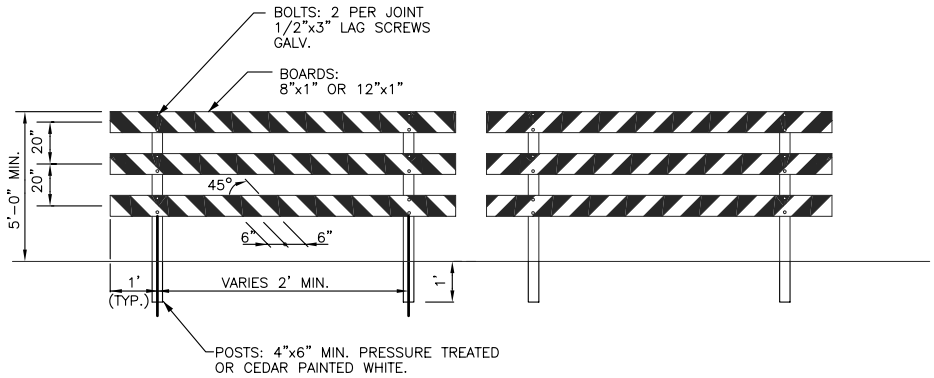
MARYSVILLE CITY ENGINEER DATE

OFF – ROADWAY

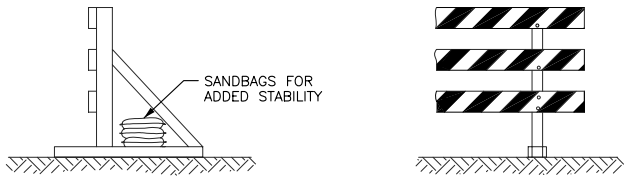
CITY OF Marysville WASHINGTON

STANDARD PLAN 3–507–002

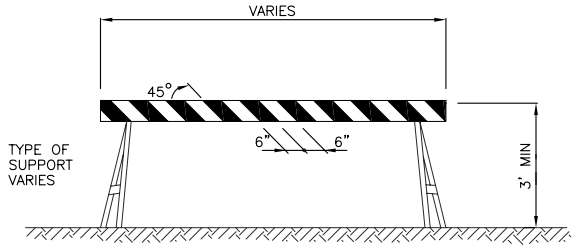
LAST REVISED 5/20/99



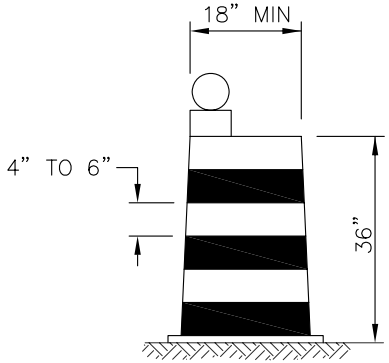
FIXED (PERMANENT)
TYPE III BARRICADE (2 REQUIRED)



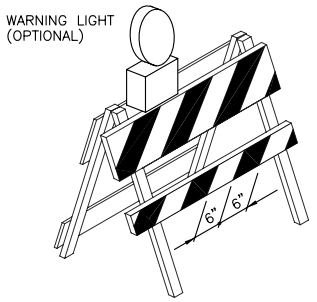
MOVABLE (TEMPORARY)
TYPE III BARRICADE



TYPE I BARRICADE



DRUM



TYPE II BARRICADE

NOTE:
FOR DIMENSIONS NOT SHOWN, SEE TABLE.

BARRICADE NOTES:			
TYPE	I	II	III
WIDTH OF RAIL	8" MIN. 12" MAX.	8" MIN. 12" MAX.	8" MIN. 12" MAX.
LENGTH OF RAIL	2' MIN.	2' MIN.	4' MIN.
HEIGHT	3' MIN.	3' MIN.	5' MIN.
TYPE OF FRAME	DEMOUNTABLE OR HEAVY "A"	LIGHT "A" FRAME	POST OR SKIDS
FLEXIBILITY	ESSENTIALLY MOVABLE	PORTABLE	ESSENTIALLY PERMANENT

STRIPE NOTES:

ORANGE & WHITE IF TEMPORARY.
RED & WHITE IF 3 MONTHS OR GREATER. REFLECTORIZED
SLANT DOWNWARD, RIGHT OR LEFT, IN DIRECTION TRAFFIC WILL PASS.
SLANT BOTH DIRECTIONS FROM MIDDLE IF TRAFFIC PASSES BOTH ENDS.
WIDTH 6" EXCEPT 4" IF RAILS ARE LESS THAN 3' LONG.
SLANT DOWNWARD TO MIDDLE AT END OF CLOSED ROAD.

SEE SEC. 3-5.07 AND MUTCD SEC.6C-8.

APPROVED BY

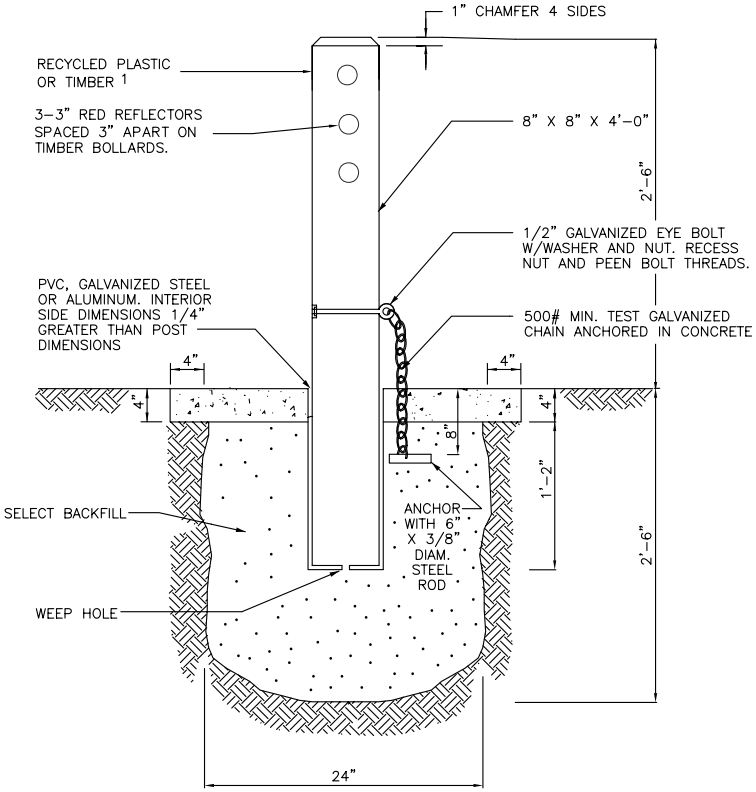
MARYSVILLE CITY ENGINEER DATE

BARRICADES

CITY OF Marysville WASHINGTON

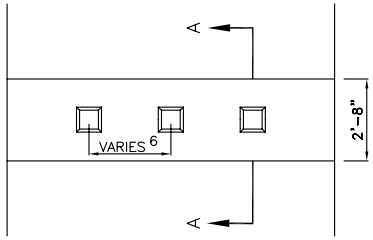
STANDARD PLAN 3-508-001

LAST REVISED 5/20/99



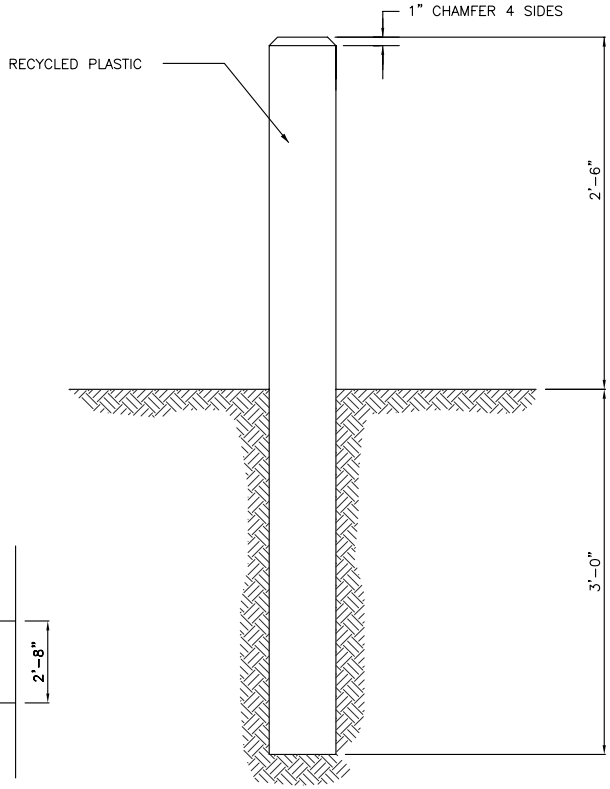
REMOVABLE BOLLARD

SECTION A-A



REMOVABLE BOLLARD

PLAN



FIXED BOLLARD

NOTES:

1. RECYCLED PLASTIC BOLLARD SHALL BE WHITE. TIMBER SHALL BE DOUGLAS FIR, DENSE CONSTRUCTION GRADE, AND SHALL BE PRESSURE TREATED WITH A WATERBORNE PRESERVATIVE (ACA, CCA, ACZA) IN ACCORDANCE WITH THE REQUIREMENTS OF SEC. 9-09.3 (4) OF THE WSDOT/APWA STANDARD SPECIFICATIONS. TOP 5" OF TIMBER SHALL BE PAINTED WHITE.
2. STEEL TUBE SHALL CONFORM TO ASTM A53 GRADE A.
3. NUTS, BOLTS, & WASHERS SHALL CONFORM TO ASTM A307.
4. ALL STEEL PARTS SHALL BE GALVANIZED.
5. MIN. 50" SPACING ON TRAILS LESS THAN 10' WIDE. 60" SPACING ON TRAILS 10' OR WIDER.

APPROVED BY

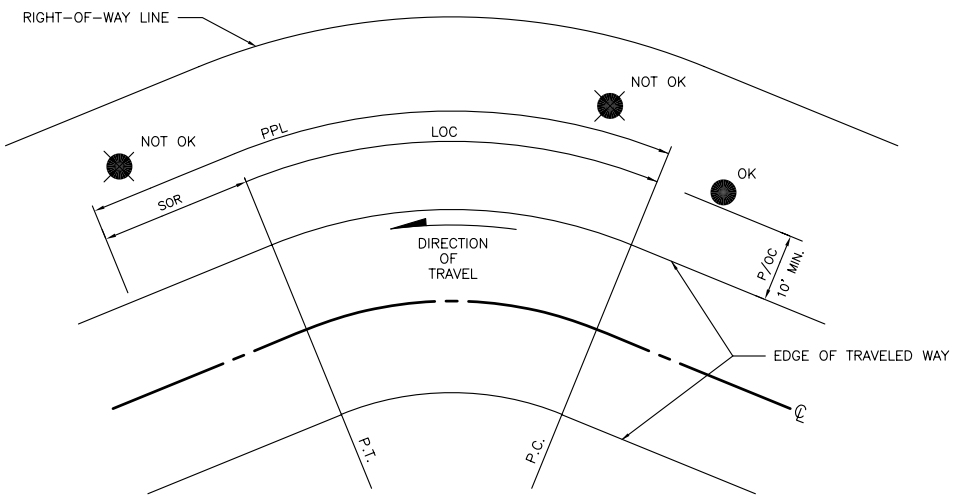
MARYSVILLE CITY ENGINEER DATE

BOLLARDS

CITY OF Marysville WASHINGTON

STANDARD PLAN 3-509-001

LAST REVISED 8/15/01



OUTSIDE OF CURVE
POSTED 40 MPH & OVER

LOC: LENGTH OF CURVE (FEET) AT EDGE OF TRAVELED WAY FROM P.C. TO P.T.

SOR: SAFETY OVERRUN (FEET) BEYOND P.T.

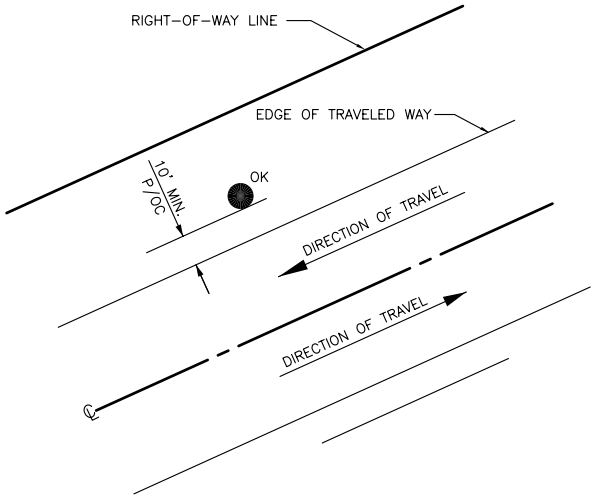
PPL: PROHIBITED POLE LOCATION (FEET) (LOC + SOR) WHERE POLES OR OBSTACLES MUST BE REMOVED OR BARRICADED.

PPL (FEET) ON OUTSIDE OF CURVES WITH POSTED SPEED LIMIT OF 40 MPH & OVER.	
40 MPH	LOC + 220 (SOR)
45	LOC + 255
50	LOC + 290
55	LOC + 325

APPLIES TO ROADWAY WITH SHOULDER OR MOUNTABLE CURB ON OUTSIDE OF CURVE, WITH:
–RADIUS LESS THAN 3500', AND
–POSTED SPEED GREATER THAN OR EQUAL TO 40 M.P.H.

NOTES:

1. THE STANDARDS SHALL APPLY TO EVERY NEW PLACEMENT AND EVERY PLANNED, NON–EMERGENCY REPLACEMENT OF EXISTING POLES AND OTHER UTILITY STRUCTURES WITHIN THE RIGHT–OF–WAY.
2. NO POLES MAY BE REPLACED ON THE OUTSIDE OF A CURVE WITH A POSTED SPEED LIMIT OF 40 MPH OR OVER UNLESS APPROVED THROUGH A VARIANCE REQUEST.



GENERAL CASE

P/OC: POLE/OBSTACLE CLEARANCE TO NEAREST FACE OF POLE/OBSTACLE.

APPLIES: TO ROADWAY WITH SHOULDER OR MOUNTABLE CURB ON:

1. TANGENT, OR
2. INSIDE OF CURVE, OR
3. OUTSIDE OF CURVE, EITHER WITH
   –POSTED SPEED LESS THAN 40 MPH OR
   –RADIUS GREATER THAN 3500' ON ROADWAY MEETING ALL CURRENT DESIGN STANDARDS.

APPROVED BY

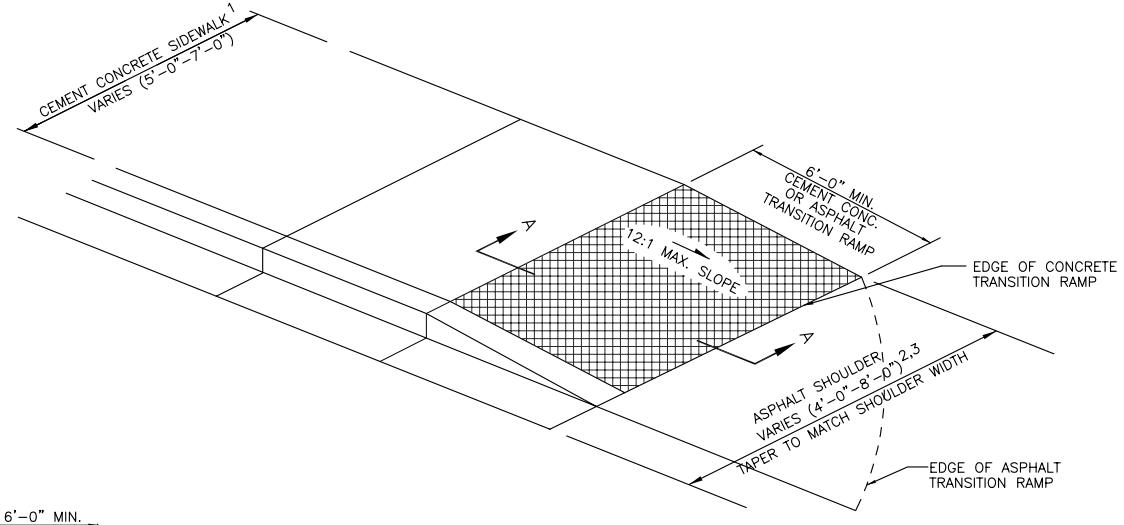
MARYSVILLE CITY ENGINEER DATE

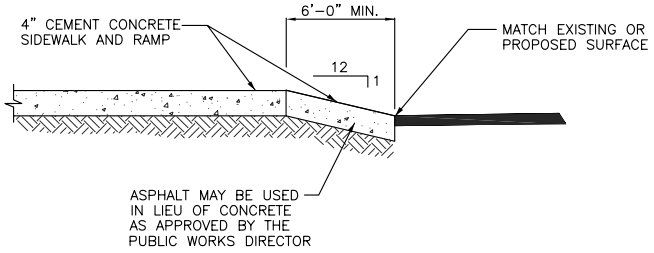
CITY OF Marysville WASHINGTON

CLEARANCE OF ROADSIDE OBSTICALES ON SHOULDER TYPE ROAD

STANDARD PLAN 3–512–001

LAST REVISED 11/12/98





SECTION A-A

NOTES:

1. FOR WIDTHS OF SIDEWALK SEE SEC. 3-513.
2. FOR CURB AND SIDEWALK JOINTS SEE SEC. 3-515.
3. TRANSITION RAMP SHALL BE TEXTURED BY IMPRINT OF METAL GRID WITH 1/2" SPACING.

APPROVED BY

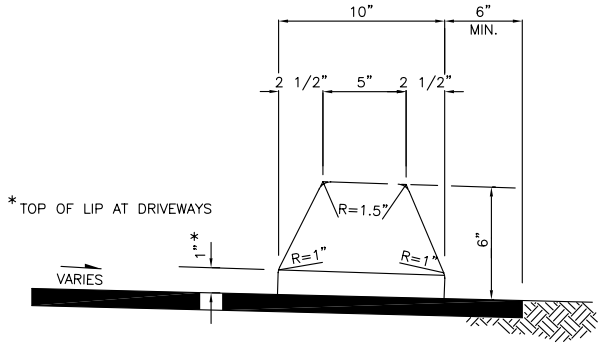
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

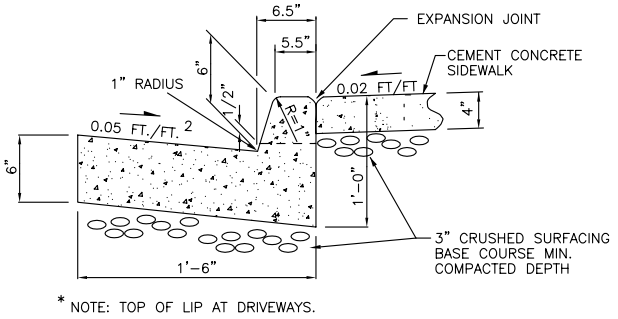
CEMENT CONCRETE SIDEWALK TRANSITION TO ASPHALT SHOULDER

STANDARD PLAN 3-513-001

LAST REVISED 10/22/99

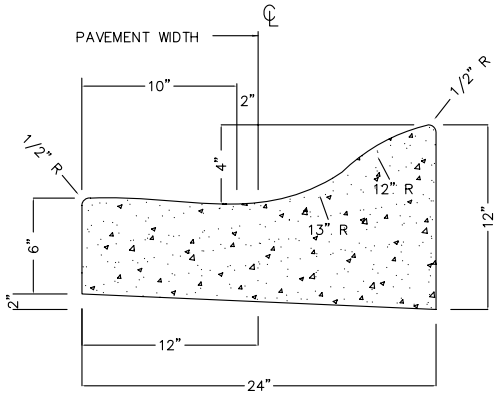


EXTRUDED ASPHALT OR CEMENT CONCRETE CURB [3]



* NOTE: TOP OF LIP AT DRIVEWAYS.

CEMENT CONCRETE CURB & GUTTER



CEMENT CONCRETE ROLLED CURB & GUTTER

NOTES:

1. SEE SEC. 3–515 FOR JOINT REQUIREMENTS.
2. ROLL GUTTER TO MATCH POSITIVE SUPERELEVATION.
3. SEE SEC. 3–514 FOR EXTRUDED CURB ANCHORAGE.
4. VERTICAL CURB WILL BE REQUIRED EXCEPT AS NOTED IN SECTION 3–514

APPROVED BY

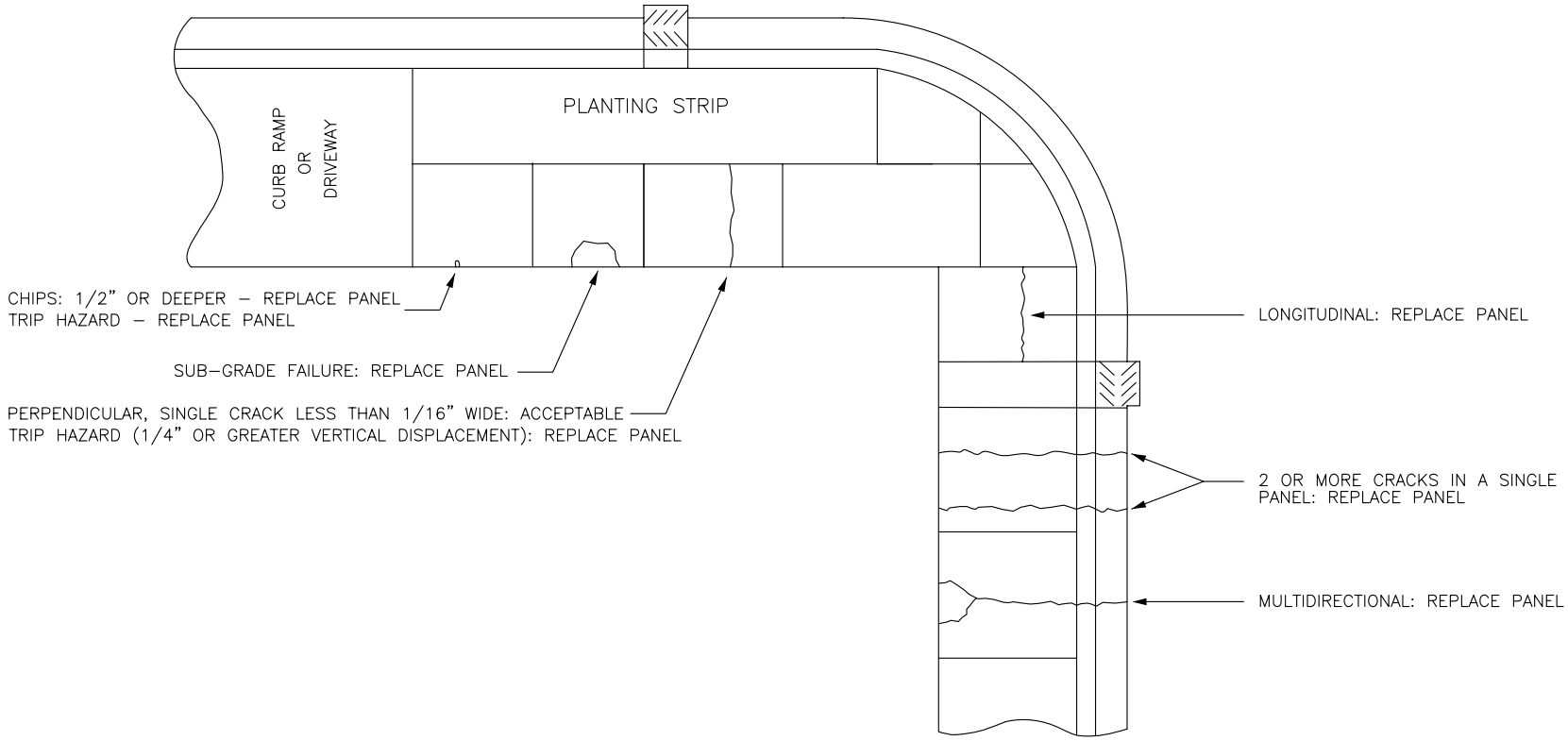
MARYSVILLE CITY ENGINEER DATE

CURB DETAILS

CITY OF Marysville WASHINGTON

STANDARD PLAN 3–514–001

LAST REVISED 10/16/06



NOTE:

1. PANEL EDGES ARE DEFINED BY EXPANSION JOINTS OR DUMMY JOINTS
2. PANEL REPLACEMENT AT DUMMY JOINTS SHALL BE SAWCUT
3. "PANEL" REFERS TO DRIVEWAY RAMPS, CURB & GUTTER, AND SIDEWALK.

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

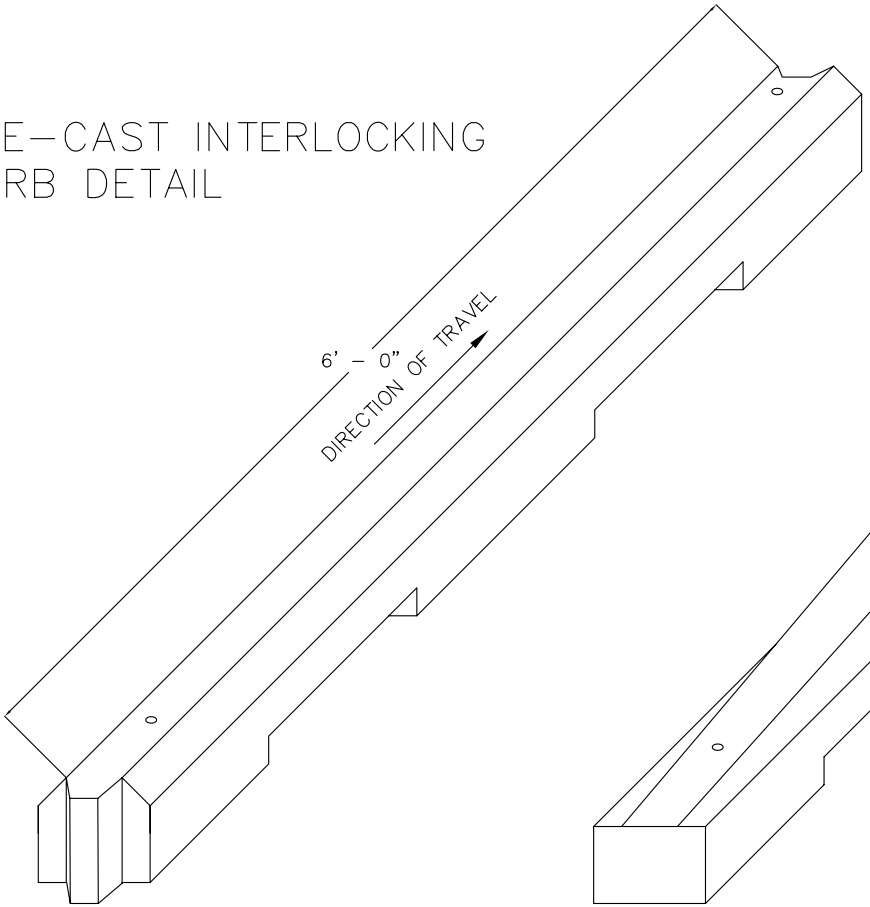
CITY OF Marysville WASHINGTON

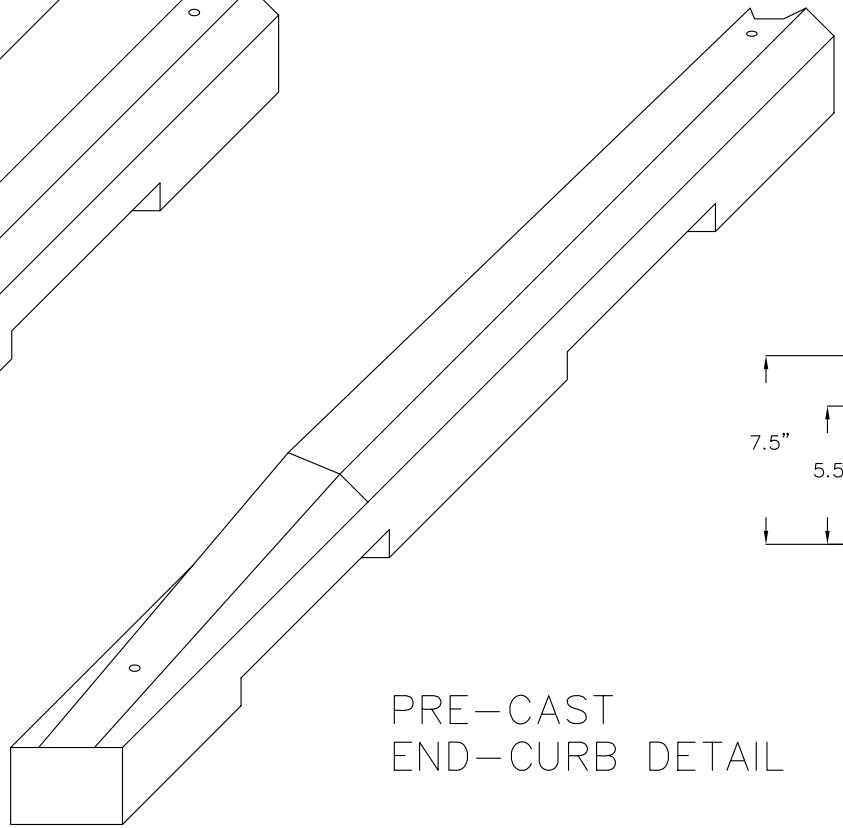
SIDEWALK REPLACEMENT REQUIREMENTS

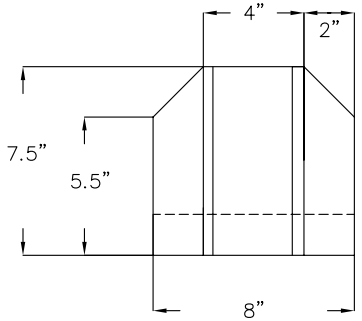
STANDARD PLAN 3–514–002

LAST REVISED 04/04/07

PRE-CAST INTERLOCKING CURB DETAIL







PRE-CAST END-CURB DETAIL

NOTES:

1. DIMENSIONS SHOWN SUGGESTED AND MAY VARY UPON MANUFACTURING.

2. CURBS SET WITH NO. 12 REBAR 2 FT IN LENGTH APPROX. 2 FT ON CENTER.

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

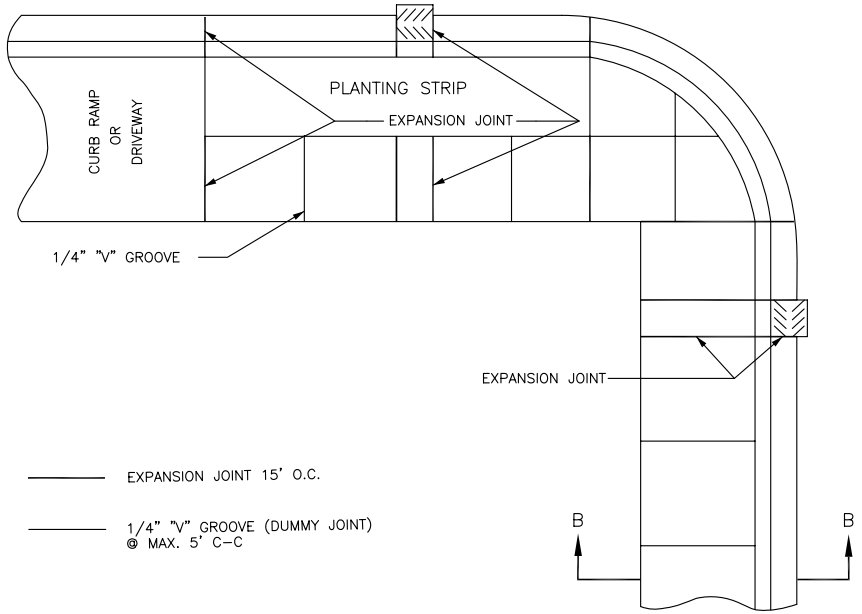
CITY OF Marysville WASHINGTON

LOW IMPACT FLOW THROUGH CURB

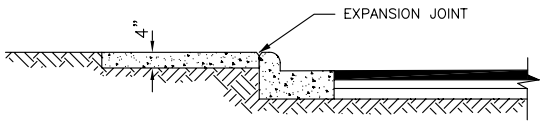
PAVED SHOULDER SECTION

STANDARD PLAN 3-514-003

LAST REVISED 10/06/06



VERTICAL CURB & SIDEWALK



SECTION B–B

NOTE:

1. SEE SEC. 3–515 FOR JOINT REQUIREMENTS.
2. EXPANSION JOINTS IN SIDEWALK AND CURB TO BE ALIGNED WITH EACH OTHER.
3. EXPANSION JOINT SHALL BE 3/8"x2 1/2" MINIMUM.

APPROVED BY

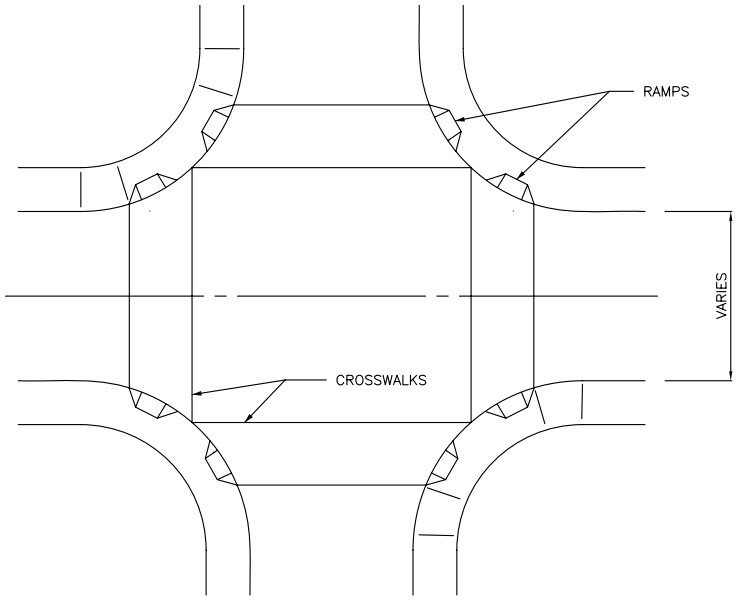
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

CURB & SIDEWALK JOINTS

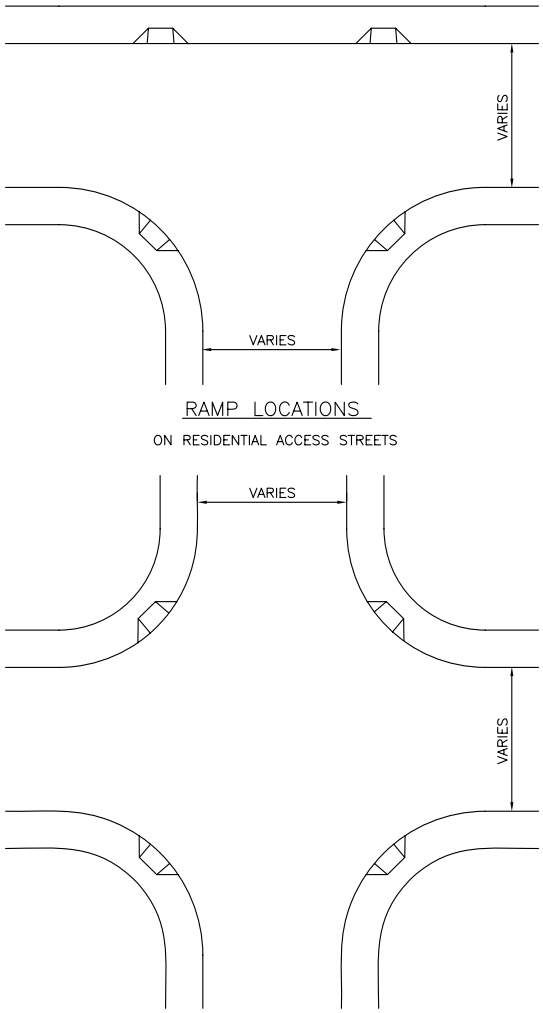
STANDARD PLAN 3–515–001

LAST REVISED 10/05/06



RAMP LOCATIONS

ON ARTERIALS AND COMMERCIAL ACCESS STREETS



RAMP LOCATIONS

ON RESIDENTIAL ACCESS STREETS

NOTES:

1. CATCH BASIN AND INLETS SHALL BE OUTSIDE THE CURB RAMP (24" MIN. CLEARANCE FROM RAMP).
2. CARE SHALL BE TAKEN TO KEEP THE RAMP FROM CONFLICTING WITH HYDRANTS, POLES, INLETS, AND OTHER UTILITIES.
3. CONSTRUCT RAMP IN ACCORDANCE WITH STANDARD WSDOT/APWA DETAILS.
4. CROSSWALKS ARE NOT ALWAYS MARKED.
5. WHEN RAMPS ARE CONSTRUCTED ON ONE SIDE OF STREET, RAMPS SHALL BE CONSTRUCTED AT CORRESPONDING LOCATIONS ON OPPOSITE SIDE OF STREET.
6. ALL CURB RAMPS SHALL MEET THE WSDOT STANDARD PLANS AND AMERICAN WITH DISABILITY ACT.

APPROVED BY

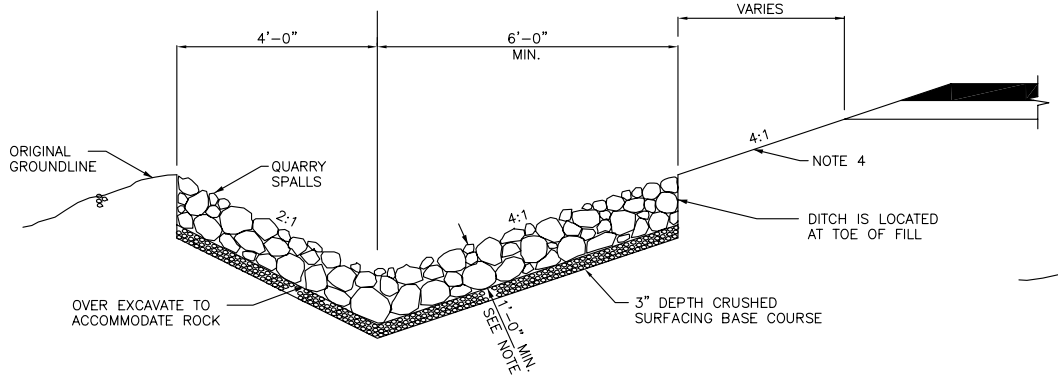
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

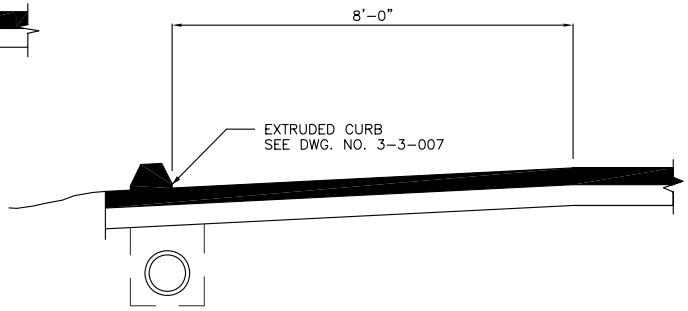
CURB RAMP LOCATIONS

LAST REVISED 8/09/01

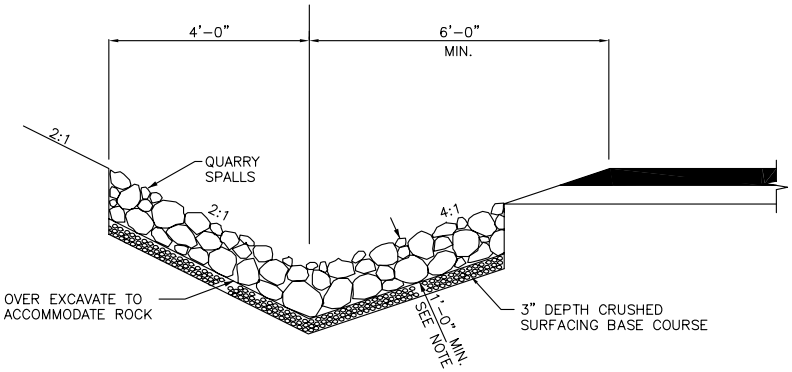
STANDARD PLAN 3-516-001



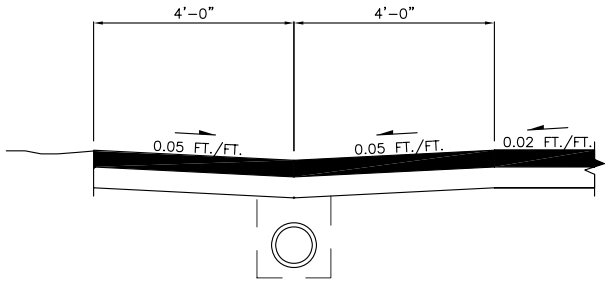
ROCK–LINED SHOULDER DITCH
IN FILL SECTION



CURBED SHOULDER



ROCK–LINED SHOULDER DITCH
IN CUT SECTION



TURNPIKE SHOULDER

NOTES FOR ROCK LINED DITCHES:

1. DEEPER ROCK FILL MAY BE SPECIFIED.
2. USE FOR FINISH ROAD GRADES – 0.5% TO 15%
3. FOR SLOPES GREATER THAN 7% PROTECT SLOPE WITH ROCK
   FOR SLOPES LESS THAN 7% PLACE CRUSHED ROCK OR HYDROSEED.

APPROVED BY

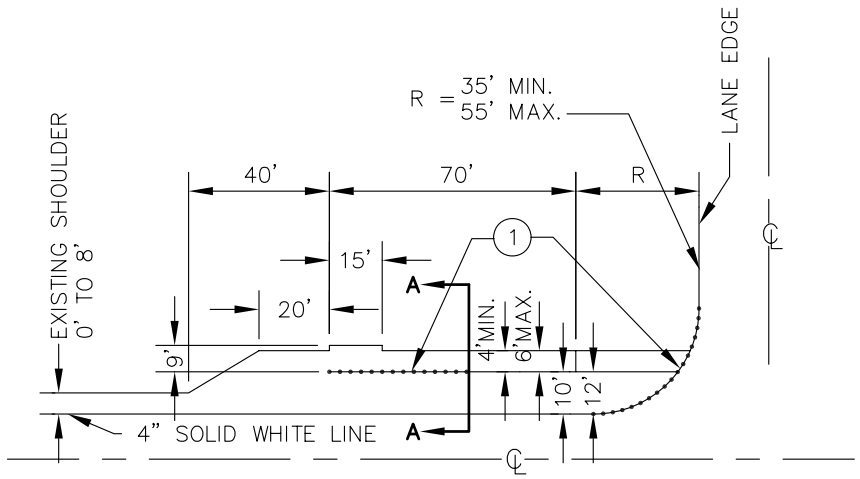
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

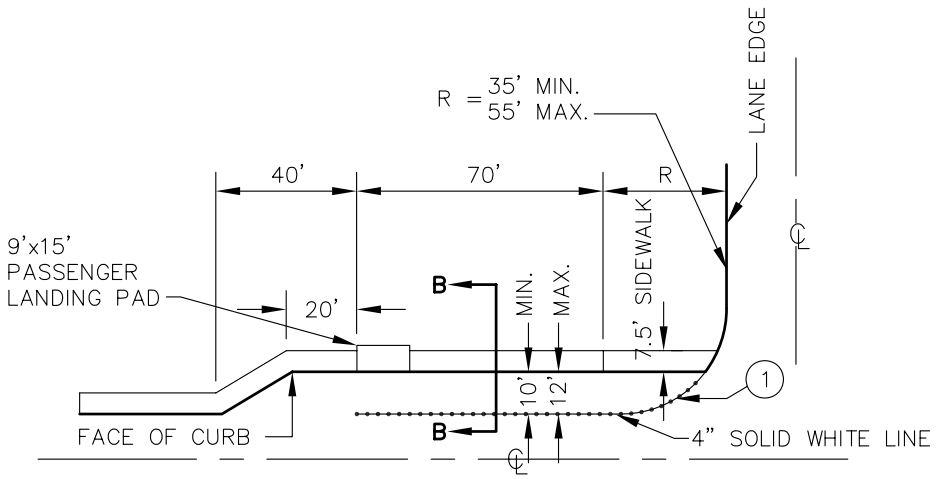
ROCK LINED SHOULDER DITCHES & CURBED OR TURNPIKE SHOULDERS

STANDARD PLAN 3–518–001

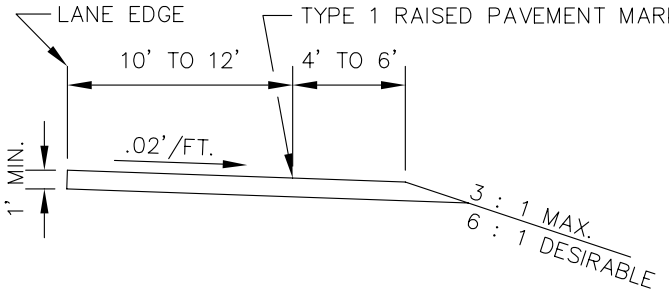
LAST REVISED 10/05/06



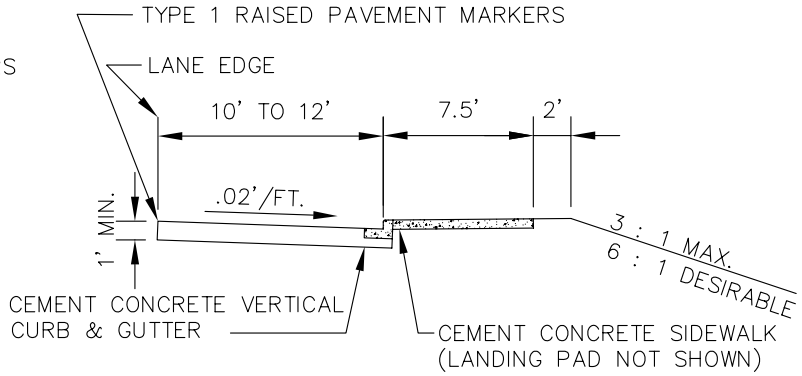
STD. FARSIDE BUS PULLOUT (2) (SHOULDER SECTION)



STD. FARSIDE BUS PULLOUT (2) (CURB SECTION)



SECTION A – A



SECTION B – B

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

BUS PULLOUTS

CITY OF Marysville WASHINGTON

STANDARD PLAN 3–520–001

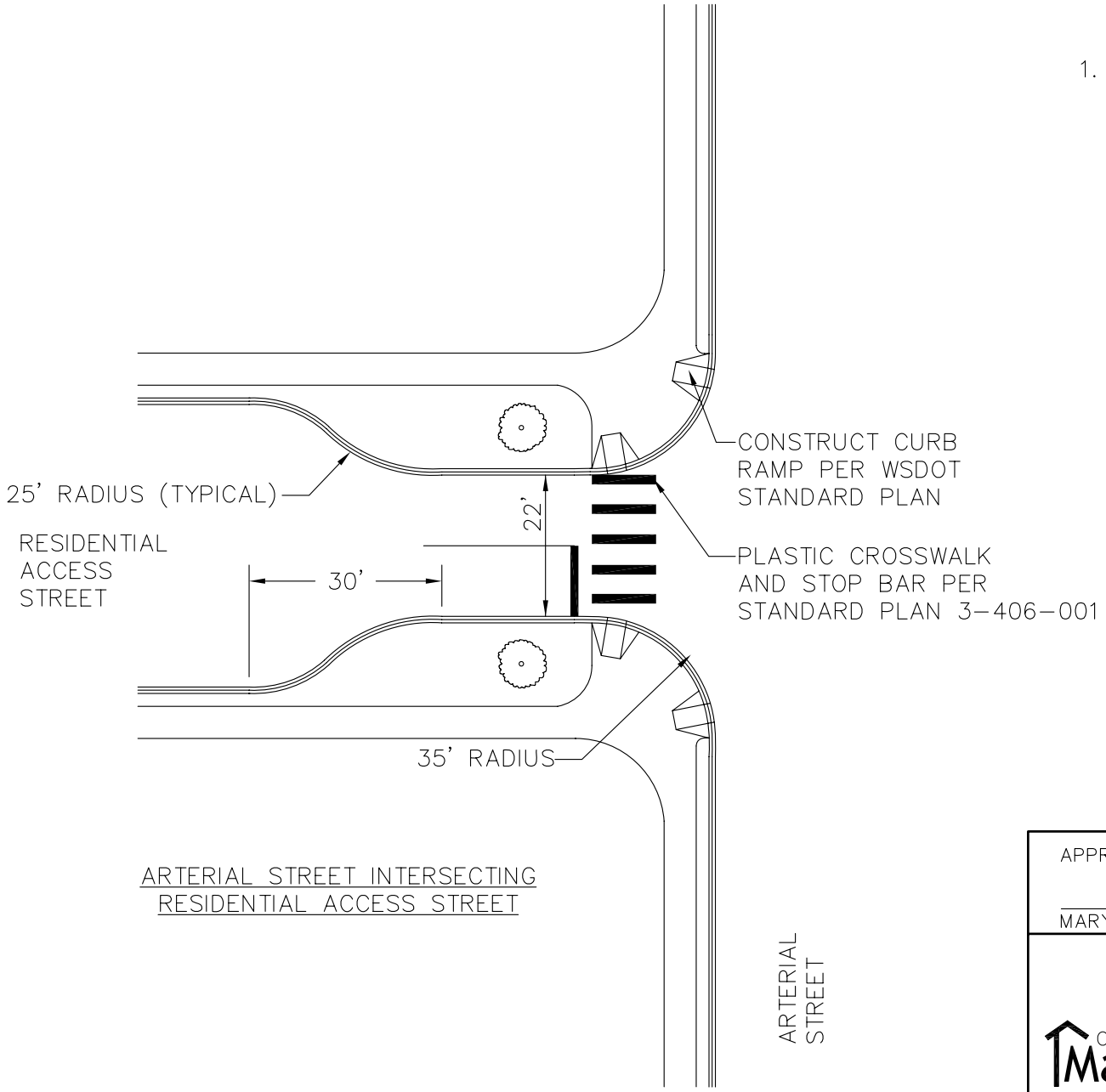
NOTES:

1. TYPE 1 RAISED PAVEMENT MARKERS, 3' O.C. SEE WSDOT/APWA SPECIFICATIONS.
2. FARSIDE BUS PULLOUTS ARE PREFERRED. FOR DESIGN GUIDANCE RELATIVE TO NEARSIDE AND MIDDLE BLOCK BUS PULLOUTS, SEE THE WSDOT DESIGN MANUAL, CHAPTER 1060.

LAST REVISED 5/20/99

NOTE

1. CURB RAMP LOCATION PER STANDARD PLAN 3-516-001.



ARTERIAL STREET INTERSECTING RESIDENTIAL ACCESS STREET

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

NECKDOWNS ARTERIAL/RESIDENTIAL ACCESS STREET INTERSECTION

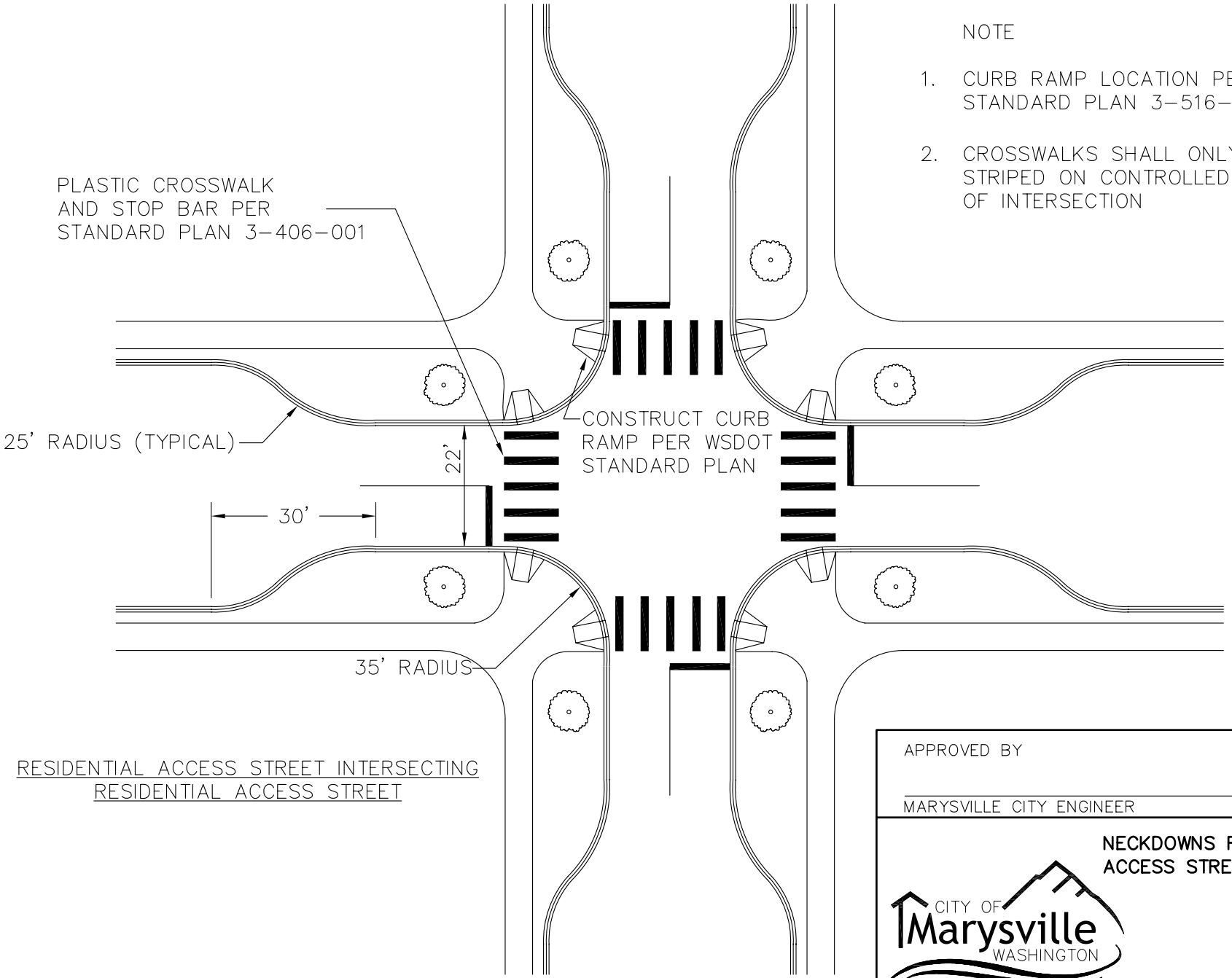
CITY OF Marysville WASHINGTON

LAST REVISED 7/01

STANDARD PLAN 3-525-001

NOTE

1. CURB RAMP LOCATION PER STANDARD PLAN 3–516–001.
2. CROSSWALKS SHALL ONLY BE STRIPED ON CONTROLLED LEG OF INTERSECTION



RESIDENTIAL ACCESS STREET INTERSECTING RESIDENTIAL ACCESS STREET

APPROVED BY

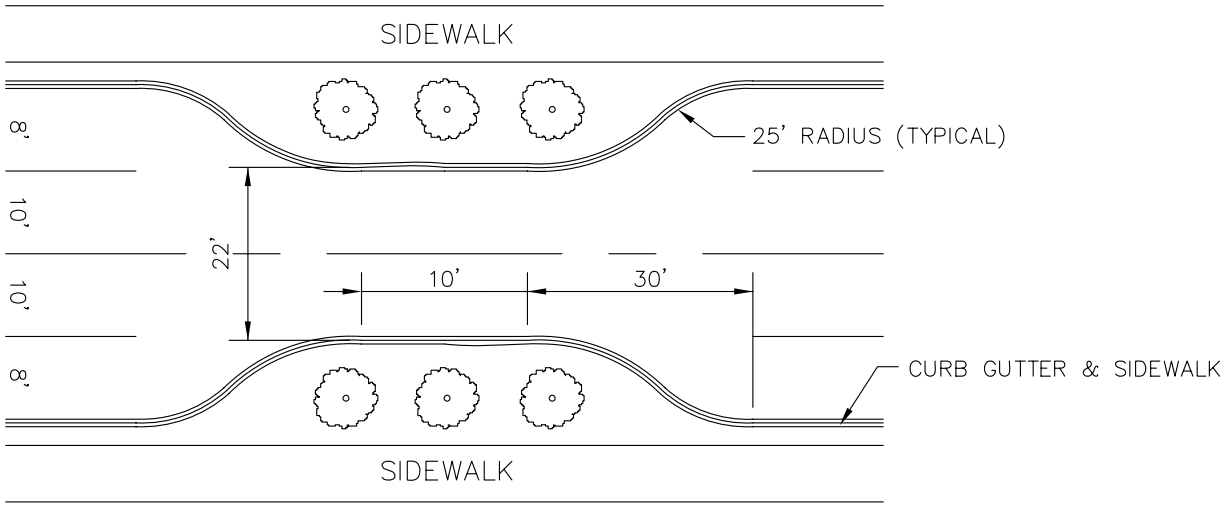
MARYSVILLE CITY ENGINEER DATE

NECKDOWNS RESIDENTIAL ACCESS STREET INTERSECTION

CITY OF Marysville WASHINGTON

LAST REVISED 7/01

STANDARD PLAN 3–525–002



NOTES

1. CHOKERS SHALL BE USED ONLY ON NEIGHBORHOOD COLLECTOR STREETS. SEE STANDARD PLAN 3-202-001.

2. CHOKERS SHALL BE SPACED A MAXIMUM OF 400' CENTER TO CENTER.

APPROVED BY

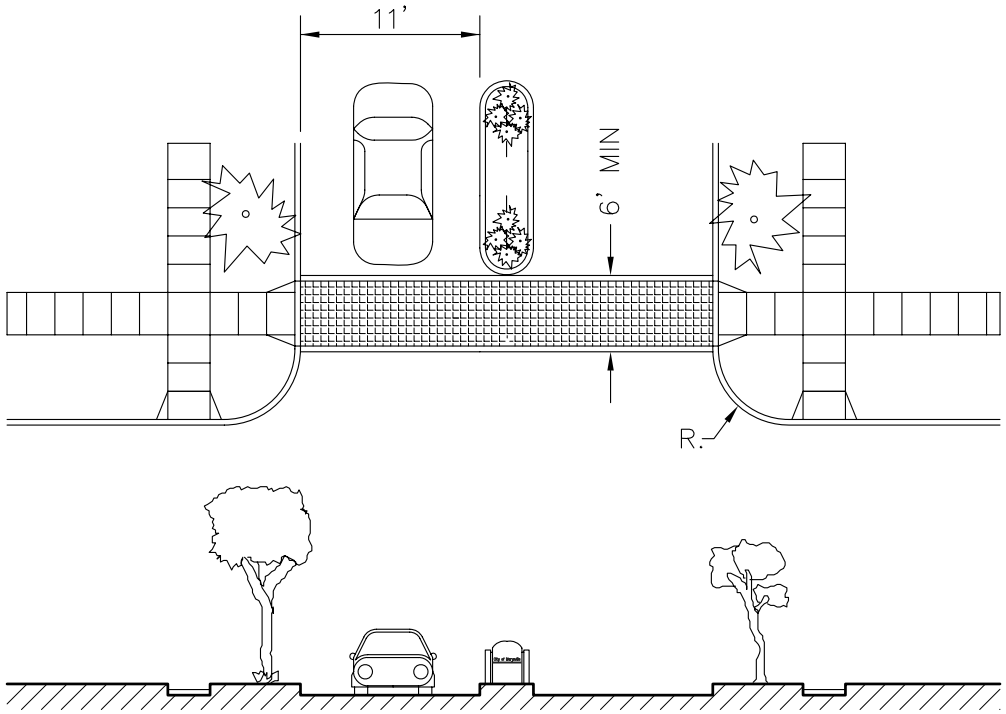
MARYSVILLE CITY ENGINEER DATE

CHOKERS

CITY OF Marysville WASHINGTON

LAST REVISED 04/04/07

STANDARD PLAN 3-525-003



NOTES

1. FOR RADIUS RETURN SEE SECTION 3–209.
2. CURB RAMPS PER STANDARD PLAN 3–516–001.
3. PEDESTRIAN TREATMENT SHALL BE RED BRICK, PAVERS, OR STAMPED PORTLAND CEMENT CONCRETE.
4. ISLAND SHALL BE CONSTRUCTED USING CEMENT CONCRETE CURB AND GUTTER. SEE STANDARD PLAN 3–514–001.
5. LANDSCAPING SHALL BE APPROVED BY THE CITY.

APPROVED BY

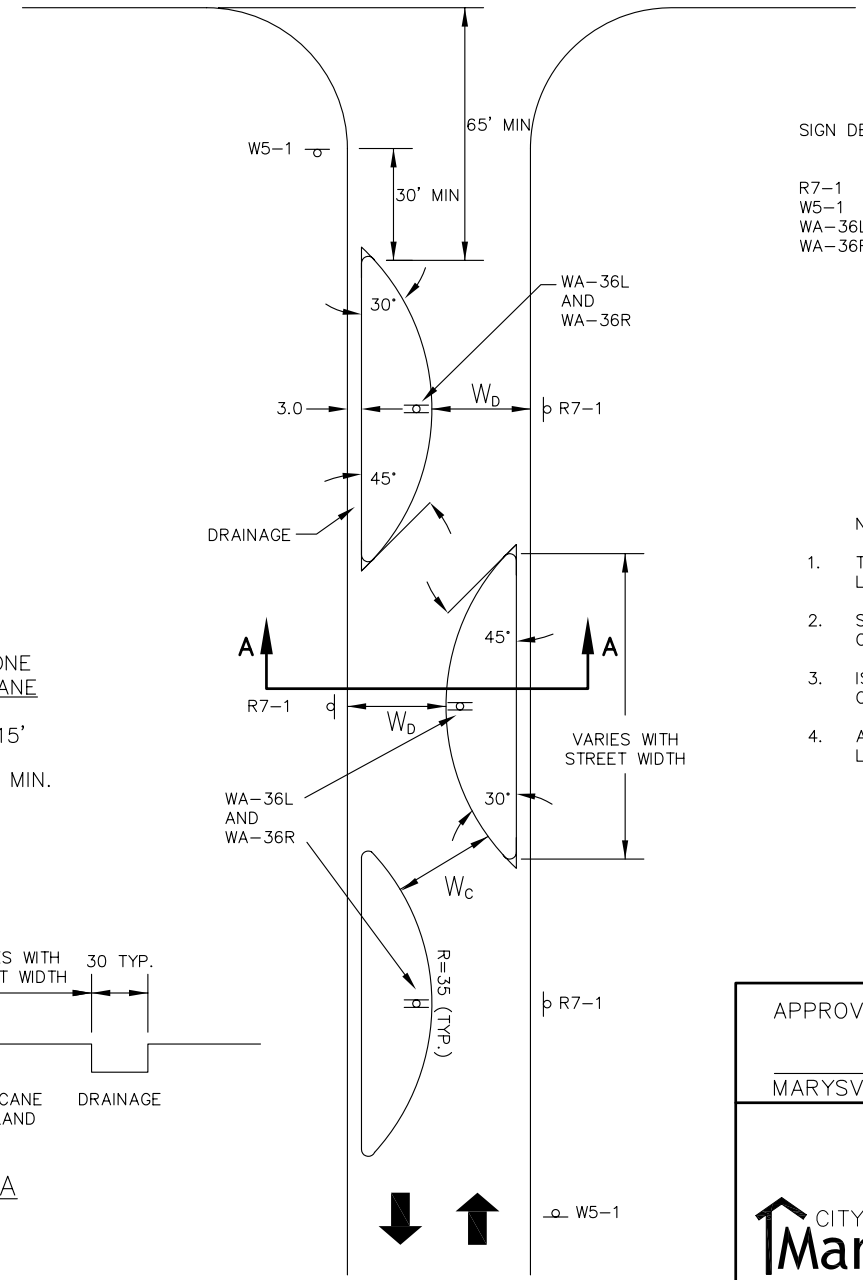
MARYSVILLE CITY ENGINEER DATE

GATEWAYS

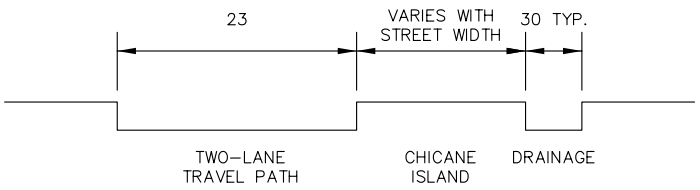
CITY OF Marysville WASHINGTON

STANDARD PLAN 3–525–004

LAST REVISED 10/21/06



	TWO LANES	ONE LANE
W_D	23'	15'
W_C	20' MIN.	11' MIN.



SECTION A-A

SIGN DESCRIPTIONS:

R7-1	NO PARKING
W5-1	ROADWAY NARROWS
WA-36L	HAZARD MARKER LEFT
WA-36R	HAZARD MARKER RIGHT

NOTES

1. THE TRAVEL PATH THROUGH THE CHICANE CAN BE ONE LANE OR TWO LANES AS NOTED.
2. SPACING OF CHICANE SEGMENTS DEPENDENT ON SITE CONSIDERATIONS, E.G. DRIVEWAY LOCATIONS.
3. ISLAND PLANTINGS SHOULD NOT OBSCURE DRIVER'S VIEW OF CHICANE TRAFFIC.
4. ADDITIONAL R7-1 SIGNS MAY BE REQUIRED TO SATISFY LOCAL CONVENTION.

NOT TO SCALE

APPROVED BY

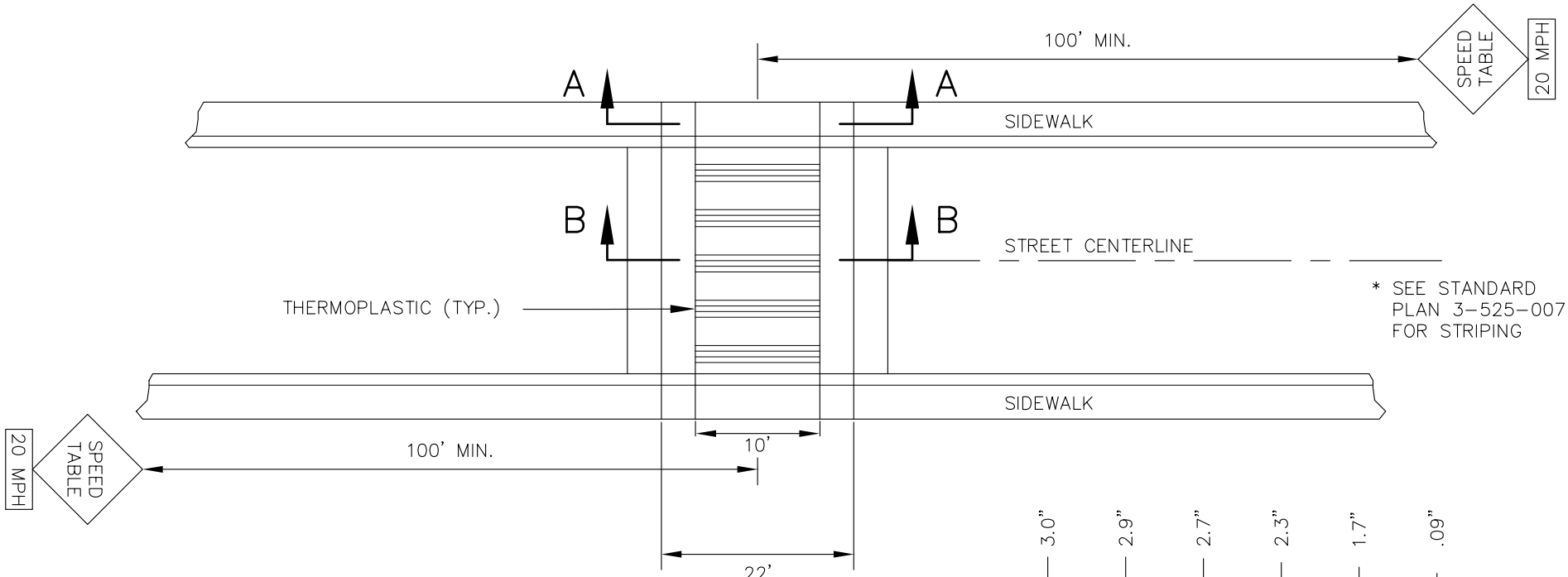
MARYSVILLE CITY ENGINEER DATE

CHICANE

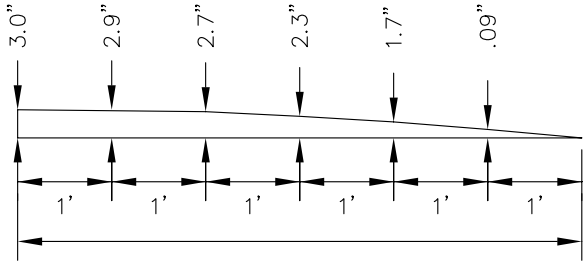
CITY OF Marysville WASHINGTON

LAST REVISED 5/20/99

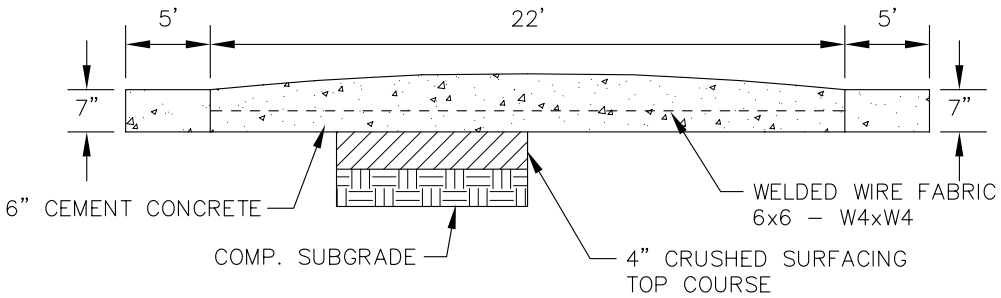
STANDARD PLAN 3-525-005



SECTION A–A



PARABOLIC SECTION



SECTION B–B

N.T.S.

* CROSSWALK SHALL BE SIGNED PER MUTCD MANUAL

APPROVED BY

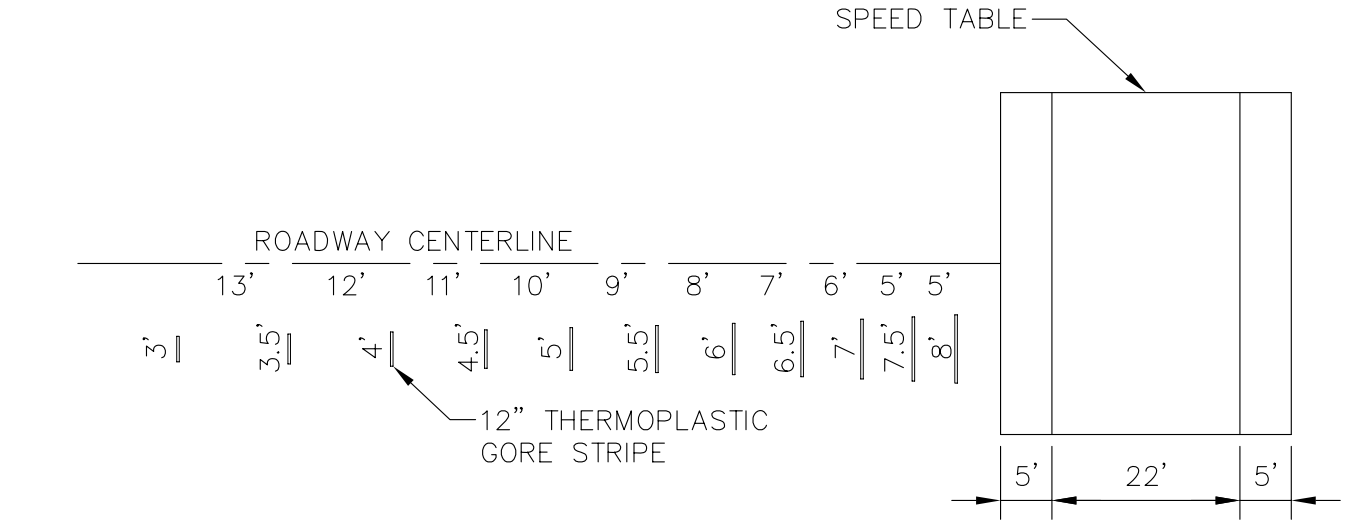
MARYSVILLE CITY ENGINEER DATE

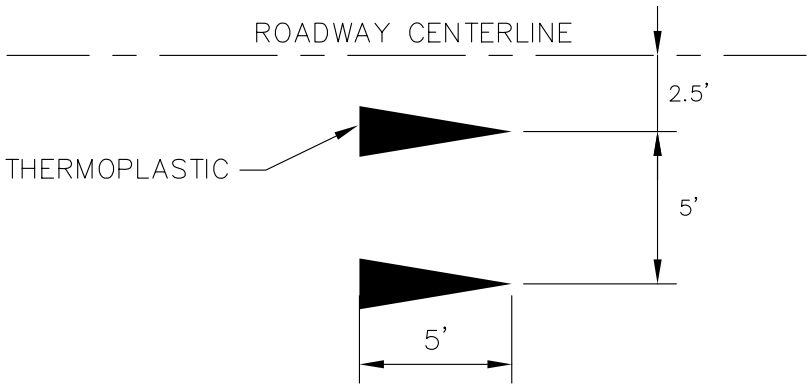
CITY OF Marysville WASHINGTON

22' SPEED TABLE NEIGHBORHOOD COLLECTOR

STANDARD PLAN 3–525–006

LAST REVISED 4/23/07





ALTERNATE STRIPE

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

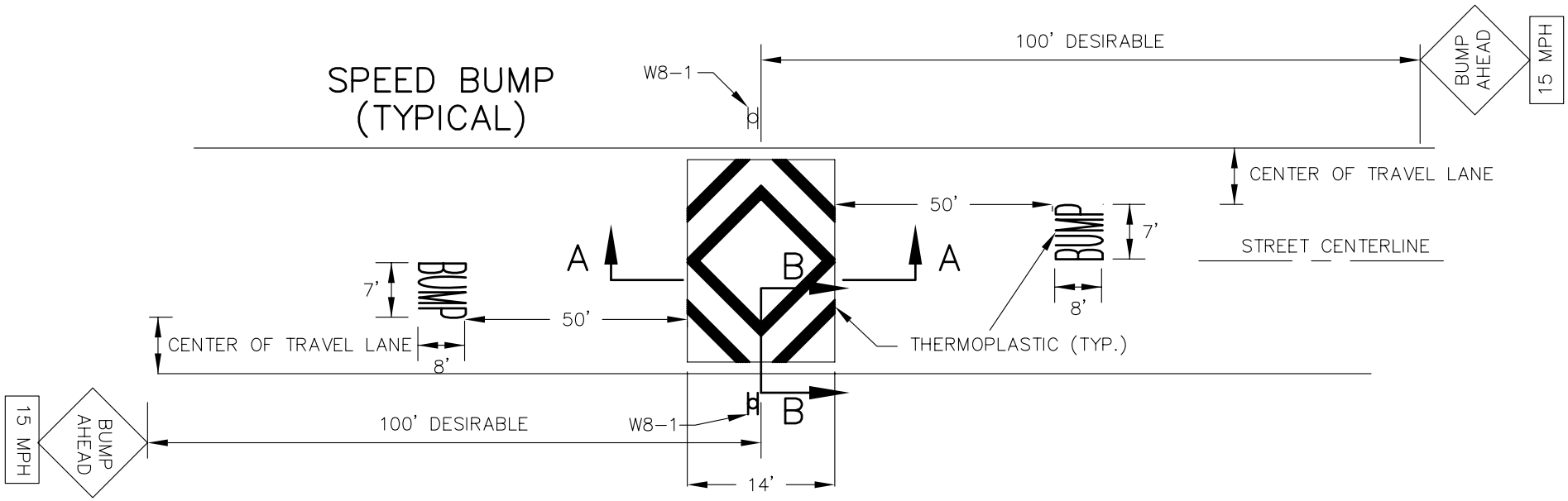
CITY OF Marysville WASHINGTON

22' SPEED TABLE STRIPING DETAIL

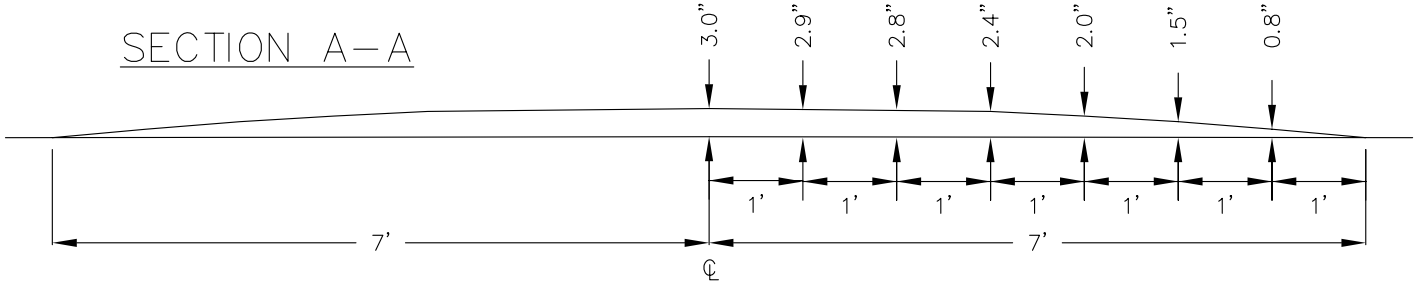
STANDARD PLAN 3-525-007

LAST REVISED 5/20/99

SPEED BUMP (TYPICAL)

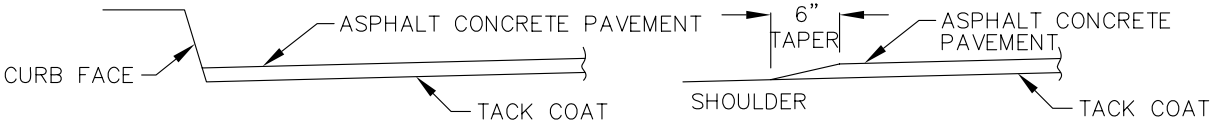


SECTION A–A



PARABOLIC CROWN

SECTION B–B



CURB DETAIL

SHOULDER DETAIL FOR STREETS WITHOUT CURBS

NOTE

1. SPEED BUMPS SHALL BE SPACED A MAXIMUM OF 300 FEET CENTER TO CENTER.

LAST REVISED 4/23/07

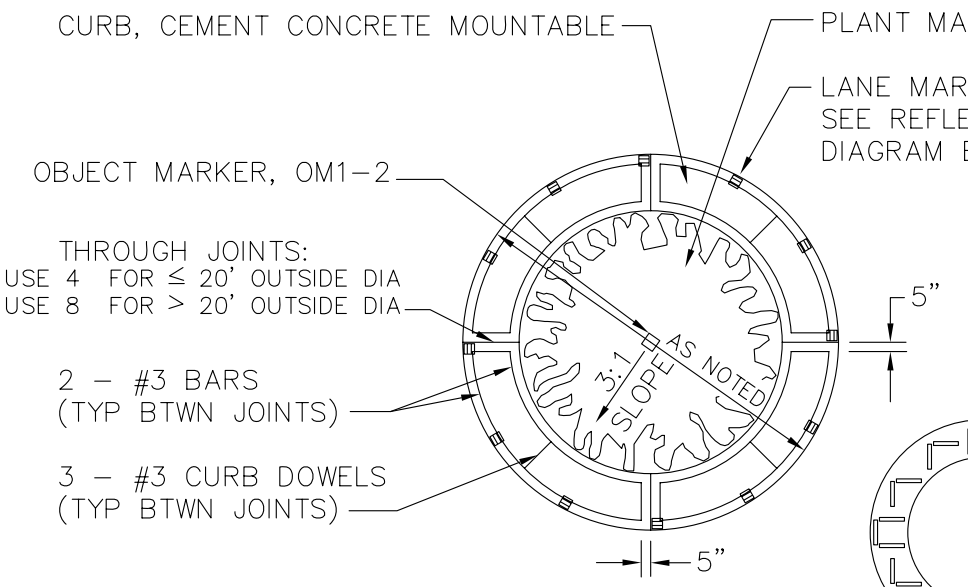
APPROVED BY

MARYSVILLE CITY ENGINEER DATE

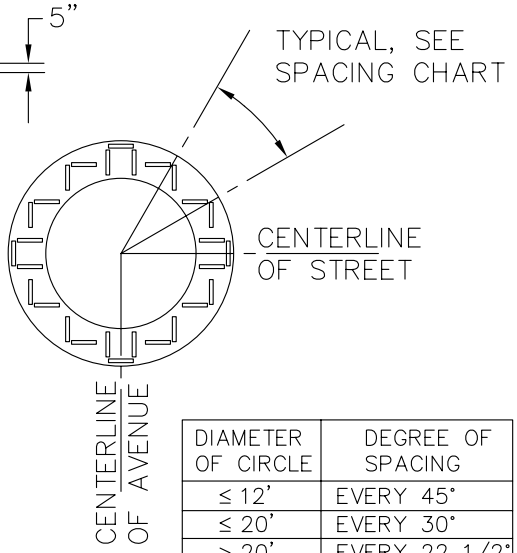
14' LOCAL ACCESS SPEED BUMP

CITY OF Marysville WASHINGTON

STANDARD PLAN 3–525–008



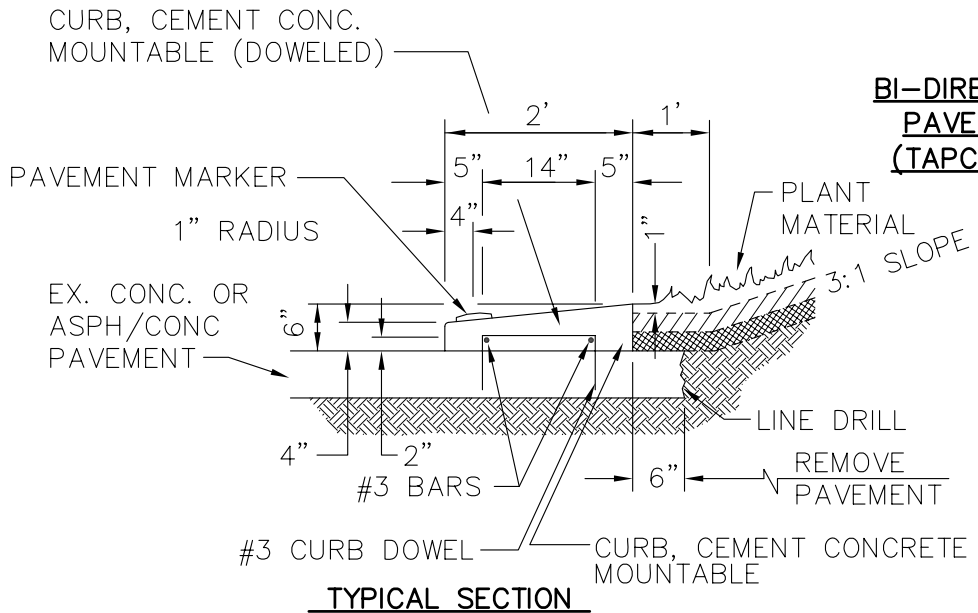
TYPICAL TRAFFIC CIRCLE



DIAMETER OF CIRCLE	DEGREE OF SPACING
≤ 12'	EVERY 45°
≤ 20'	EVERY 30°
> 20'	EVERY 22 1/2°

(FACING VEHICLE APPROACH)

TRAFFIC CIRCLE
BI-DIRECTIONAL REFLECTORIVE
PAVEMENT MARKER LAYOUT
(TAPCO #1638-4 OR EQUAL)



TYPICAL SECTION

NOTE: UNDER CERTAIN CONDITIONS CITY MAY REQUIRE THAT VEGETATION BE REPLACED WITH STAMPED PORTLAND CEMENT CONCRETE

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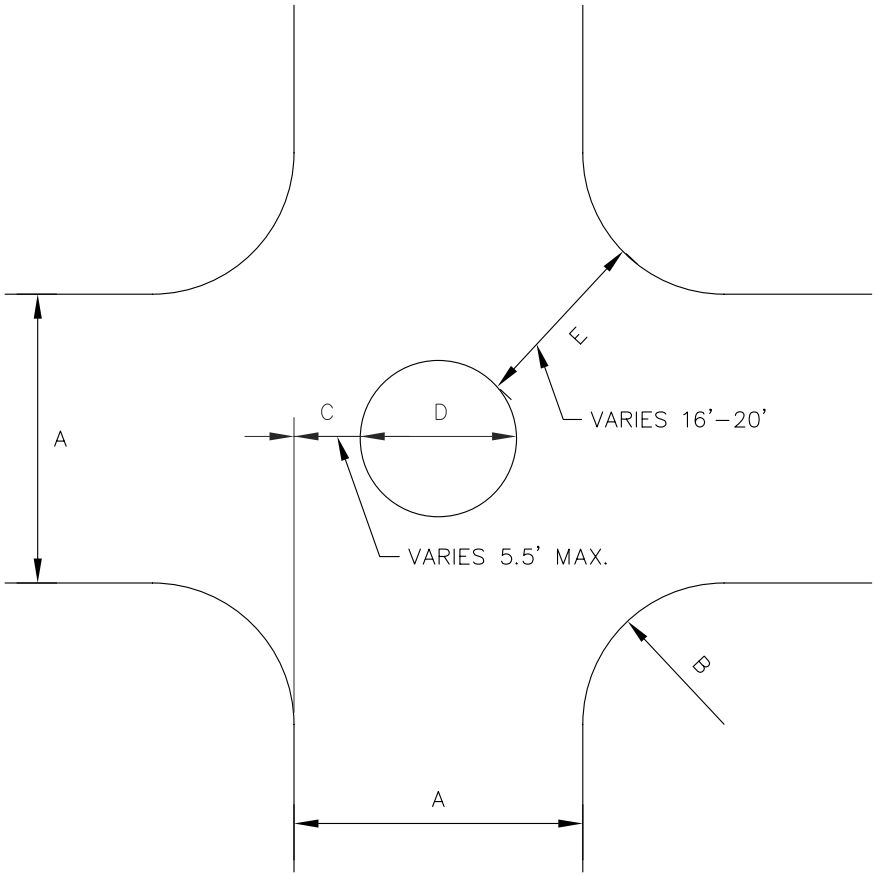
TRAFFIC CIRCLE DETAIL

CITY OF Marysville WASHINGTON

LAST REVISED 10/05/06

STANDARD PLAN 3-525-009



LEGEND:

A	STREET WIDTH
B	CURB RETURN RADIUS
C	OFF–SET DISTANCE
D	CIRCLE DIAMETER
E	OPENING WIDTH

OPTIMUM CRITERIA

OFF–SET DISTANCE	OPENING WIDTH
5.5' MAX	16' MIN
5.0'	17'±
4.5'	18'±
4.0'	19'±
3.5' OR LESS	20'±

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MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

INTERSECTION DIAGRAM

STANDARD PLAN 3–525–010

LAST REVISED 5/20/99

A STREET WIDTH	B CURB RETURN RADIUS	C OFF–SET DISTANCE	D CIRCLE DIAMETER	E OPENING WIDTH
20'*	15'		RECONSTRUCT CURBS	
↓	15'*	5.5'	9'	16'+
	18'*	5.0'	10'	17'+
	20'	4.5'	11'	18'–
	25'	4.0'	12'	19'+
24'*	12'		RECONSTRUCT CURBS	
↓	12'*	5.5'	13'	16'
	15'*	5.0'	14'	17'–
	20'	4.5'	15'	18'+
	25'	3.5'	17'	20'–
28'	12'		RECONSTRUCT CURBS	
↓	12'*	5.5'	14'	16'+
	15'*	5.0'	15'	17'–
	18'*	4.5'	16'	18'–
	20'	4.5'	16'	18'+
	25'	3.5'	18'	20'–
30'	10'*	5.5'	19'	16'+
↓	12'*	5.0'	20'	17'–
	15'*	5.0'	20'	17'+
	18'*	4.5'	21'	18'+
	20'	4.0'	22'	19'+
	25'	3.0'	24'	20'
32'	10'*	5.5'	21'	16'+
↓	12'*	5.0'	22'	17'–
	15'*	4.5'	23'	18'–
	18'*	4.0'	24'	19'–
	20'	4.0'	24'	19'+
	25'	2.5'	27'	20'
36'	10'*	5.0'	26'	17'–
↓	12'*	5.0'	26'	17'+
	15'*	4.5'	27'	18'+
	18'*	4.0'	28'	19'+
	20'	3.5'	29'	20'–
	25'	1.5'	33'	20'
40'	10'*	5.0'	30'	17'+
↓	12'*	4.5'	31'	18'+
	15'*	4.0'	32'	19'–
	18'*	3.5'	33'	20'–
	20'	3.0'	34'	20'
	25'	1.0'	38'	20'

* EXISTING SUBSTANDARD WIDTH STREETS

LAST REVISED 5/20/99

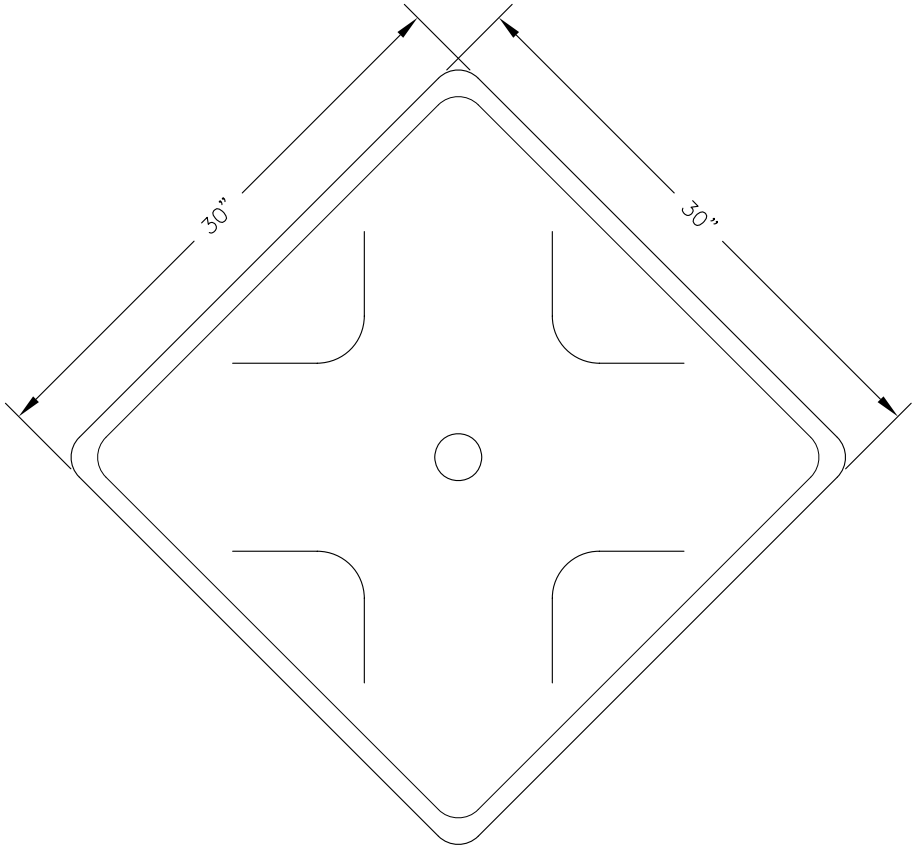
APPROVED BY

MARYSVILLE CITY ENGINEER DATE

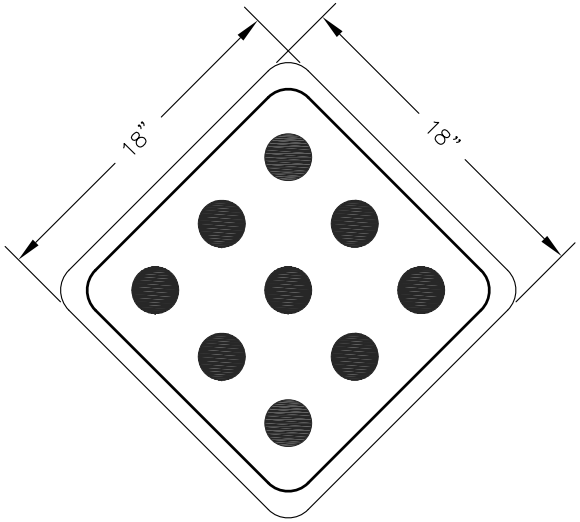
DIMENSION CHART

CITY OF Marysville WASHINGTON

STANDARD PLAN 3–525–011



OM1-2



NOTES FOR OM1-2:

1. MIN. MOUNTING HEIGHT = 48"
2. TO BE USED ON ALL TYPE III BARRICADES

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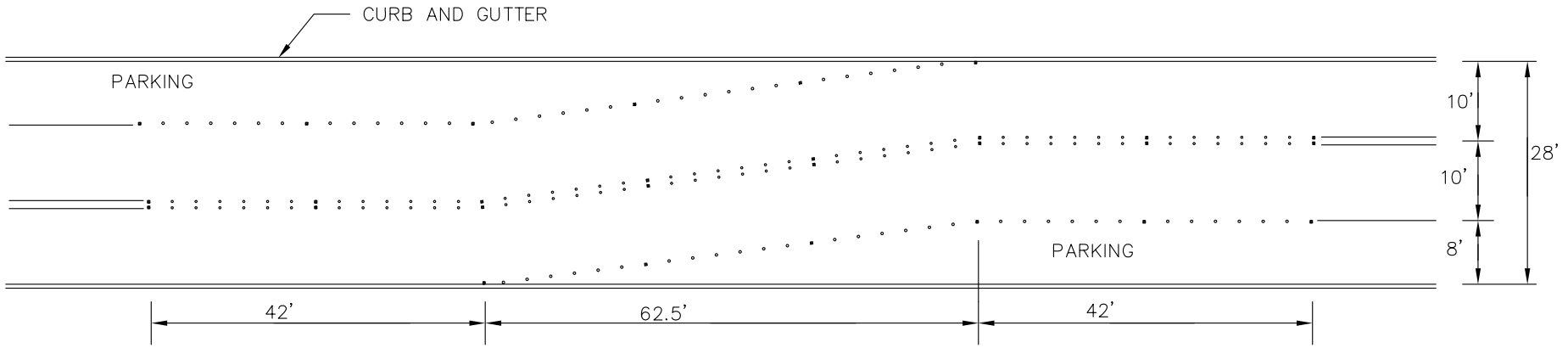
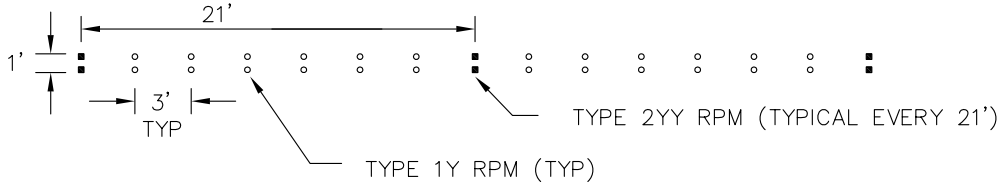
WARNING SIGNS

CITY OF Marysville WASHINGTON

LAST REVISED 10/16/01

STANDARD PLAN 3-525-012

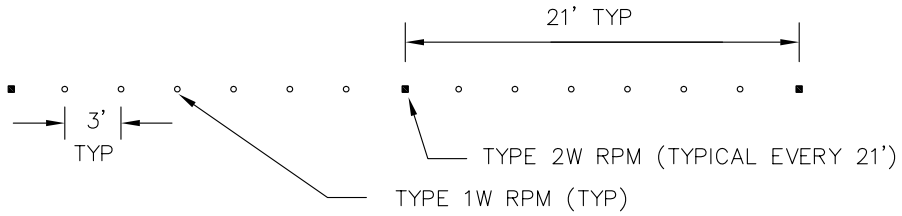




CENTER OF TRAVEL WAY

NOTES:

① ALTERNATE PARKING EVERY 300' +OR−.
② DIMENSIONS ARE FOR POSTED SPEED OF 25 MPH.



EDGE OF TRAVEL WAY

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

ALTERNATE PARKING CHANNELIZATION

LAST REVISED 5/19/00

STANDARD PLAN 3-525-013

Bridges

3-600 Bridges

3-601 Principal References

Except as specified below, City of Marysville bridges, whether on public roads or on private roads serving subdivided land, shall be designed and constructed to meet the minimum requirements set forth in the latest edition, including all interim addenda, of "Standard Specifications for Highway Bridges," adopted by AASHTO and in accordance with the requirements of WSDOT Standard Specifications. Bridge and approach railings shall be provided in accordance with those references or with WSDOT/APWA Standard Plans. All new bridges shall be designed to carry an AASHTO HS 20-44 live load or greater. All bridgework shall comply with City Codes regarding sensitive and shoreline management areas for stream and wetland protection and flooding concerns.

3-602 Bridge Geometrics

A. In the general case, the bridge shall comprise the full width and configuration of the road being served -- traveled way plus curb, sidewalks, walkway, bike lane, equestrian lane and/or shoulder on one or both sides. Requirements of utilities shall be duly considered. Bridge roadway width shall be measured between curbs or between faces of rails, whichever is less, but in no case shall be less than 28 feet.

B. Where typical speed is 35 MPH or higher-and significant pedestrian, bike and/or horseback traffic can be expected, the Public Works Director or designee may require that the lanes for these other modes of traffic be separated from motor vehicle traffic by use of a bridge traffic rail and further protected by a rail at outer edge. On designated bike routes, combination traffic and bicycle railings shall be used.

C. Approach railings shall be made structurally continuous with bridge railings and shall meet AASHTO specifications as cited in Section 3-510 above.

D. Overhead vertical clearances for motor traffic on the traveled way or under overpasses shall be 16.5 feet minimum. Vertical clearance of structures above a walkway or sidewalk shall be 8 feet minimum and shall be 10 feet on designated equestrian routes.

E. The height of bridge clearance above streams shall be as required by the Surface Water Design Manual.

3-603 Bridge Design Criteria

A. Approach slabs Will be required for all bridges and new bridge plans shall provide pavement seats for approach slabs unless otherwise approved by the Public Works Director or designee. Waiver or modification of the requirement for approach slabs will be considered only on the basis of adequate geotechnical analysis. Approach slabs shall be constructed in accordance with WSDOT/APWA Standard Plan A-2,

B. New bridge decks and approach slabs shall be designed with a protective system to prevent corrosion of the reinforcing steel.

C. Criteria under other recognized road and bridge project classifications, such as those of 3-R projects, set forth in WSDOT Local Agency Guidelines, may be applied under conditions deemed appropriate by the Public Works Director or designee.

D. The design of bridge expansion joints shall consider the presence of bicycle traffic.

3-604 Special Permits

Permit requirements for construction or reconstruction of bridges include but are not limited to the following:

A. Bridges over navigable waters require U. S. Coast Guard permits.

B. Bridges involving deposition of material in waters of the United States or their adjacent wetlands require an U. S. Army Corps of Engineers Permit.

C. Any work involving alteration of flow or bed materials below the ordinary high water line of any water body or water course requires a-Hydraulic Project approval from the State Department of Fisheries or the State Department of Wildlife.

D. Any work within waters of the State requires a Water Quality Certification Waiver from the State Department of Ecology.

E. Where bridge structures lie on or over submerged lands a lease from the Washington State Department of Natural Resources may be necessary,

F. Structures located on shoreline zones as defined in City of Marysville Code require a substantial development permit from the City subject to concurrence of the State Department of Ecology.

G. Bridges over waterways require the Public Works Director or designee's approval of the size and shape of the hydraulic opening, the height of the superstructure over high water, the location of piers, channel, improvement, and other hydraulic considerations.

Utilities

3-700 Utilities

3-701 Franchising Policy and Permit Procedure

A. Utilities to be located within existing and proposed City road right-of-way shall be constructed in accordance with current franchise and/or permit procedure and in compliance with these Standards. In their use of the right-of-way, utilities will be given consideration in concert with the traffic carrying requirements of the road which are, namely, to provide safe, efficient and convenient passage for motor vehicles, pedestrians, and other transportation uses. Aesthetics shall be a consideration. As a matter of policy, undergrounding of electric utilities will be required except in Old Town Marysville. Also, utilities are subject to City policies relating to drainage, erosion/sedimentation control and sensitive areas as set forth in City Codes and the Storm Drainage Design Standards.

B. All permits for new placement and replacement of existing utility poles and other utility structures above grade shall be accompanied by written certification from a professional Engineer or from an agent authorized by the utility to certify that the installations conform to these Standards and that the proposed work is in conformity with sound engineering principles relating to highway safety.

C. Requests for exceptions to these Standards will be processed in accordance with variance procedure as referenced in Section 3-107.

3-702 Standard Utility Locations within the Right-of-Way

Utilities within the right-of-way on new roads or on roads where existing topography, utilities or storm drains are not in conflict, shall be located as indicated below. Where existing utilities or storm drains are in place, new utilities shall conform to these Standards as nearly as practicable and yet be compatible with the existing installations. Above ground utilities located within intersections shall be placed so as to avoid conflict with placement of curb ramps.

A. Gas and Water Lines:

1. Shoulder-and-Ditch Section:

   If practical: Outside of ditch line.

   Otherwise: In shoulder three feet from edge of traveled lane.

2. Curb and Gutter Section:

Preferable: One and one-half feet back of curb, or at distance which will clear root masses of street trees if these are present or anticipated.

Otherwise: In the street as close to the curb without encroaching on the storm drainage system. Mains and service connections to all lots shall be completed prior to placing of surface materials.

3. Designated Side of Centerline:

GAS: South and West.

WATER: North and East.

4. Depth: 42 inches minimum cover from finished grade, ditch bottom or natural ground.

B. Individual water service lines shall:

1. Be placed with minimum 36-inch cover from finished grade, ditch bottom or natural ground.
2. Use road right-of-way only as necessary to make side connections,
3. For any one connection, not extend more than 60 feet along or through the right-of-way, or the minimum width of the existing right-of-way.
4. Water meter boxes, when placed or re-placed, shall be located on the right-of-way line immediately adjacent to the property being served, unless otherwise approved by the Public Works Director or designee. Meter box locations within the right-of-way may be approved by the Public Works Director or designee based on site conditions, which make routine, service access difficult or impractical,

C. Sanitary Sewers: In the general case, five feet south and west of centerline; depth 60-inch minimum cover from finished grade, ditch bottom or natural ground,

D. In the case of individual sanitary sewer service lines, which are force mains, the pipe shall:

1. Is minimum four inches D.I., or as required by the utility to maintain internal scouring velocity.
2. If nonmetallic, contain wire or other acceptable proximity detection features; or be placed in a cast iron or other acceptable metal casing.
3. Be placed with minimum three-foot cover from finished grade, ditch bottom or natural ground, within 10 degrees of perpendicular to road centerline, and extend to right-of-way line,
4. Be jacked or bored under road unless otherwise approved by the Public Works Director or designee,

E. Sanitary and water lines shall be separated in accordance with good engineering practice such as the Criteria for Sewage Work Design, Washington Department of Ecology, latest edition.

F. Gravity systems, whether sanitary or storm drainage, shall have precedence over other systems in planning and installation except where a non-gravity system has already been installed under previous approved permit and subject to applicable provisions of such permits or franchises.

G. Electric utilities, power, telephone, cable TV: Preferable: Underground with 36 inch minimum cover, either side of road, at plan location and depth compatible with other utilities and storm drains. Otherwise: Every new placement and every replacement of existing utility poles and other utility structures above grade shall conform to the following:

1. Utility poles or other obstacles may be placed within the right-of-way and shall be as far back from the traveled way or auxiliary lane as practicable. The utility pole shall be placed outside of the clear zone per the WSDOT Design Manual.

H. Notwithstanding the other provisions regarding pole locations described in these standards, no pole shall be located so that it poses a hazard to the general public. Utilities shall place and replace poles with primary consideration given to public safety.

1. The above constraints on pole and obstacle location will not apply to locations not accessible by moving vehicles, "breakaway" structures whose break-off resistance does not exceed that of 4" x 4" wood post or a 1-1/2-inch standard (hollow) iron pipe or to "breakaway" fire hydrants installed to manufacturer's specifications,
2. Deviations from these pole and obstacle clearance criteria may be allowed by an approved variance when justified by suitable engineering study considering traffic safety. Only the Utility may request a variance from pole and obstacle clearance criteria. Up to three contiguous damaged or weakened poles may be replaced at existing locations under permit in accordance with emergency procedures, however, sequential permits resulting in continuous replacement of a pole line shall not be allowed. A pole or other obstacle, which incurs repeated damage from errant vehicles, shall be relocated or protected.
3. Locations of poles shall also be compatible with driveways, intersections, and other road features (i.e., they shall not interfere with sight distances, road signing, traffic signals, culverts, etc.). To the extent possible, utilities shall share facilities so that a minimum number of poles are needed.
4. Where road uses leave insufficient overhang, anchor, and tree-trimming space for overhead utilities, consideration will be given to variance from the Standards or to

acquisition of additional easements and/or right-of-way for this purpose. Costs incurred for said acquisition shall be borne by the developer, builder, or other party initiating the road construction. However, the associated cost of relocating the utility shall not be borne by the City of Marysville.

I. Notwithstanding other provisions, underground systems shall be located at least five feet away from road centerline and where they will not otherwise disturb existing survey monumentation.

3-703 Underground Utility Installation

A. General: The WSDOT Standard Specificationswill generally apply unless otherwise stated below.

B. Utility Cuts On Existing Traveled Roads

1. General Policy

- Trench restoration guidelines ensure that the condition of the pavement of existing and new public streets are not degraded by trenching and restoration activities. These guidelines shall be followed by City departments, utility companies and contractors when doing trench work within the paved portion of City right of way.
  - Modifications or exemptions to these policies may be authorized by the Public Works Director or designee per section 3-107 of these standards.
  - Whenever a new street is completed or an overlay of an existing street has been completed within five (5) years of a newly proposed cut, additional roadway restoration shall be required as determined by the Public Works Director or designee.
  - Pavement trenching may be allowed, under compelling circumstances, provided a more reasonable alternative does not exist.
  - Boring under the roadway shall be by a guided boring equipment. A boring mole will not be allowed.
  - A Development Standard Handout is attached in Appendix C.

2. Policy

Overlay is required

- On all streets with a pavement condition index of greater than 80 a full street width or lane width overlay is required.
- On all streets with a pavement condition index between 70 and 80 a full street or lane width overlay may be required based on the location of the trench work. If any part of the trench or trench edge falls within the standard vehicle wheel path (seven feet eight inches centered within the lane, see standard drawings 3-703-001 and 3-703-002 then an overlay will be required.

No Overlay is required

- On all streets with a pavement condition index of less then 70 trench restoration per the standard plans is required.

3. Trench Restoration

Longitudinal Cut

- Trench restoration shall be per standard plan 3-703-002

Transverse Cut

- Trench restoration shall be per standard plan 3-703-003.

4. General Information

Inspection

The City inspectors may determine in the field that a full street width or lane width overlay be required due to changes in the permit conditions such as the following:

a. Trenches needed to be relocated in the field because of existing utilities.
b. Additional damage to existing asphalt surface due to the contractors equipment.
c. The trench width increases significantly.
d. Significant problems that were not expected or are discovered during the construction.

Overlay

- Lane width or a full street width overlay will be determined based on the location of the proposed trench within the roadway cross-section.
  a. If the trenching is down the middle of a single lane then a lane width overlay will be required.

b. If the trenching is down the middle of the roadway a full width overlay will be required.

c. If the trenching is down the middle of two lanes in the same direction or is within three feet of any lane then the lanes affected will be overlayed.

- All existing pavement shall receive a 2" grinding prior to the overlay.
- All overlays shall extend 10 feet beyond the edge of the trench.

New Streets and Recent Overlay

- Whenever a new street is accepted from a developer or a new overlay has been completed within five (5) years of a newly proposed cut (non-emergency), additional roadway restoration shall be required as determined by the Public Works Director or designee.
- In the event of an emergency, pavement excavation may be allowed provided a more reasonable alternative does not exist and restoration of the pavement complies with one of three options described below:

a. Option 1: This option applies to street crossings and/or longitudinal trenches and requires the grinding down of existing pavement and overlay of the entire roadway or vehicle lane impacted by the trenching.

Once the trench work is completed and the trench restored per the standard plan, the entire roadway will be ground down to a depth of 2.0 inches between adjacent intersections and a 2 inch overlay of Class B modified asphalt applied per City Standards.

b. Option 2: This option applies to street crossings and/or longitudinal trenches where a partial grinding and complete overlay can be substituted for Option 1.

Once the trench work is completed and the trench restored the outside lanes can be ground to width of six (6) feet from the curb for a depth of 2.0 inches between adjacent intersections and a 2.0 inch overlay of Class B modified asphalt applied to the entire roadway surface per City Standards.

C. On Proposed Roads (e.g., New Subdivisions): Backfill compaction for trenches within the roadway shall be achieved throughout the entire depth of the trench, by mechanical compaction as described above.

D. Controlled Density Backfill:

As an alternative to mechanical compaction, trench backfill above the bedding and below the base course or ATB may be accomplished by use of controlled density backfill (CDF) in a design mixture approved by the Public Works Director or designee. On crossings required to be opened to traffic prior to final trench restoration, steel plates may be used-as approved by the Public Works Director or designee.

E. Testing:

1. Consistent with the above and prior to placing any surface materials on the roadway, it shall be the responsibility of the developer to provide density test reports certified by a professional Engineer. A minimum of one test shall be taken within every 50 feet of trench length and at depths up to 50 percent of trench depth, or as directed by the Public Works Director or designee. Compaction of laterals or service line trenches shall be tested where directed by the Public Works Director or designee. Testing of CDF shall be in accordance with ASTM D4832.
2. Whichever compaction method the installer elects, the backfill below four feet must test to be not less than 90 percent maximum density (modified proctor) and the upper four feet of backfill must test not less than 95 percent maximum density (modified proctor). Where this cannot be achieved, all affected backfill in the top four feet shall be removed and replaced by gravel base and mechanically compacted to 95 percent as in B.2 above.

F. Notification and Inspection:

1. Consistent with these Standards, any developers, utilities, or others intending to trench in existing or proposed traveled City streets shall notify City of Marysville Public Works Inspection office not less than one working day prior to doing the work. This notification shall include:
   a. Location of the work
   b. Method of compaction to be used
   c. Day and hour when compaction is to be done
   d. Day and hour when testing is to be done.
2. As set forth in these Standards, failure to notify may necessitate testing or retesting by City of Marysville at the expense of the Developer or Utility. Furthermore, the work may be suspended pending satisfactory test results.

3-704 Final Utility Adjustment (To Finish Grade)

A. All utility covers, which are located on proposed asphalt roadways, shall be temporarily placed at subgrade elevation prior to placing crushed surfacing material.

B. Final adjustment of all covers and access entries shall be made following final paving by:

1. Saw-cutting or neat-line jack hammering of the pavement around lids and covers. Opening should not be larger than 12 inches beyond the radius of the cover.
2. Removing base material, surfacing course, and frame; adding raising bricks; replacing frame and cover no higher than finished grade of pavement and no lower than one-half inch below the pavement.
3. Filling and mechanically compacting around the structure and frame with crushed surfacing material or ATB, or pouring in five-inch minimum thickness of cement concrete Class 3000 to within two inches of the top.
4. Filling the remaining two inches with asphalt concrete Class B hot mix, compacted and sealed to provide a dense, uniform surface.
5. Final adjustment of all covers and access entries shall be completed within 30 days of final paving.

3-705 Final Cleanup and Restoration

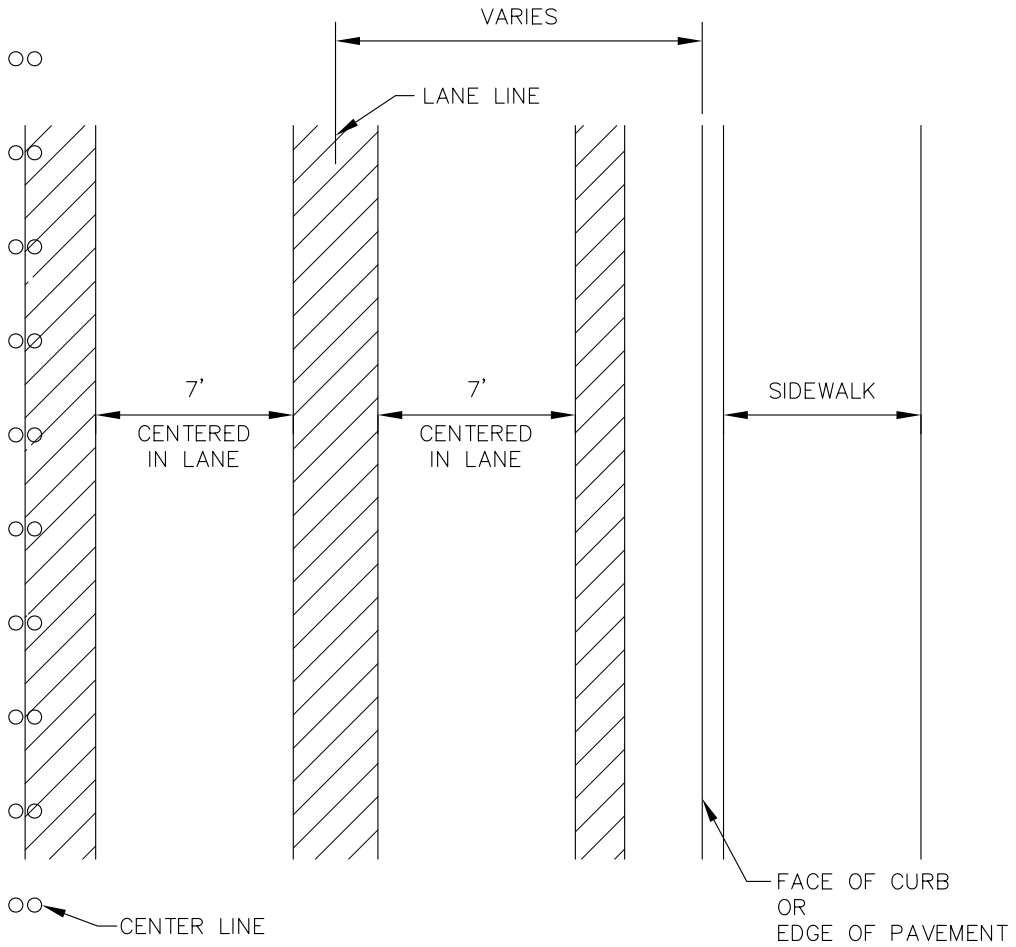
In addition to restoration of the road as described above, the responsible utility shall care for adjacent areas in compliance with these standards and section 8-01 in the WSDOT Standard Specifications. In particular:

A. Streets and roads shall be cleaned and swept both during and after the installation work. No blading of asphalt streets will be permitted.

B. Disturbed soils shall be final graded, seeded and mulched after installation of utility. In limited areas seeding and mulching by hand, using approved methods, will be acceptable.

C. Ditch lines with erodible soil and subject to rapid flows may require seeding, jute matting, netting, or rock lining to control erosion.

D. Any silting of downstream drainage facilities, whether ditches or pipe and catch basins, which results from the utility installation shall be cleaned out and the work site restored to a stable condition as part of site cleanup.



NOTES:

1. IF THE TRENCH FOR LONGITUDINAL WORK OCCURS WITHIN THE HATCHED AREA, AN OVERLAY WILL BE REQUIRED.

APPROVED BY

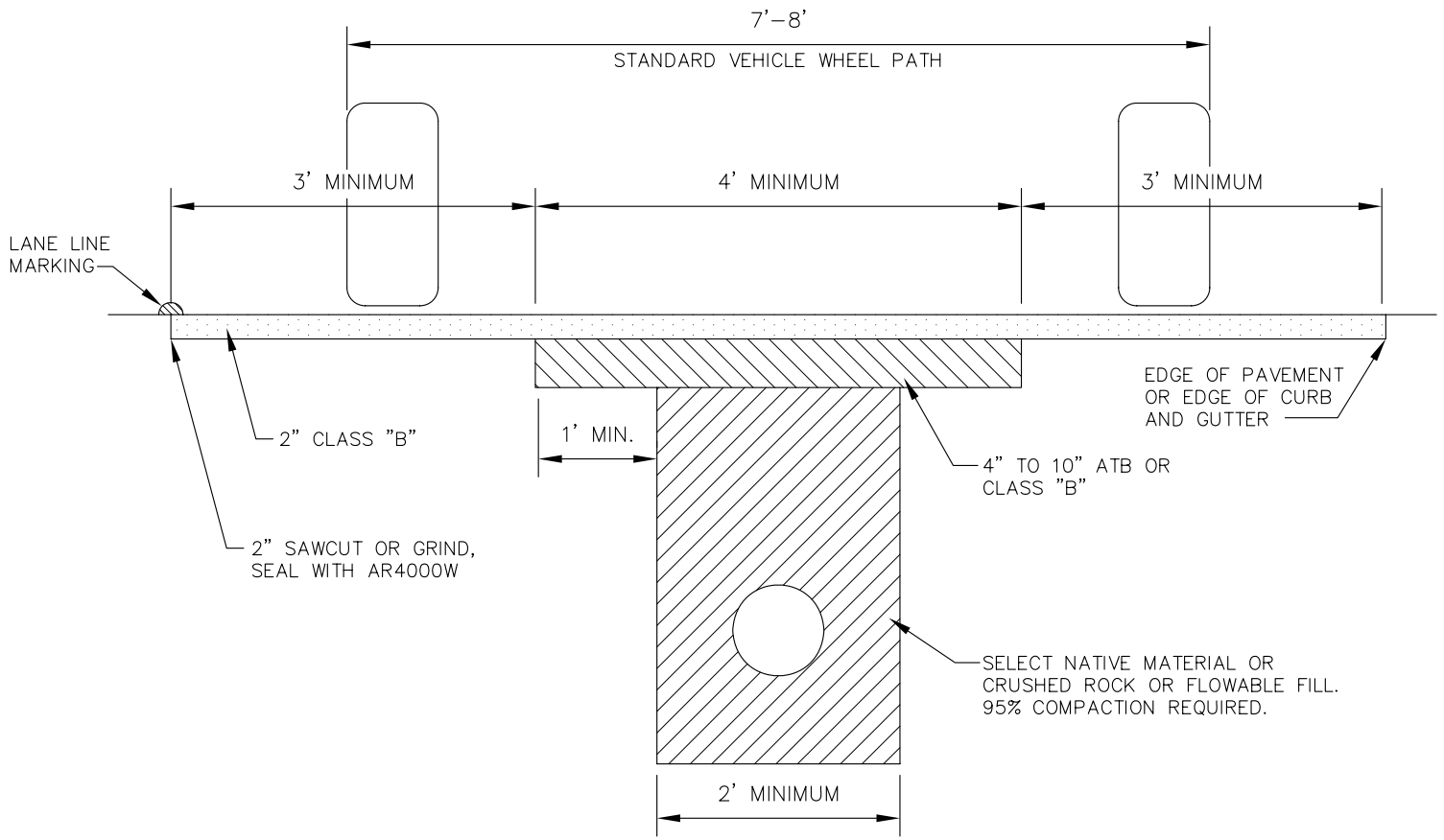
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

TRENCH LOCATION WITHIN ROADWAY

LAST REVISED 10/06/06

STANDARD PLAN 3-703-001



LESS THAN FULL WIDTH OVERLAY

APPROVED BY

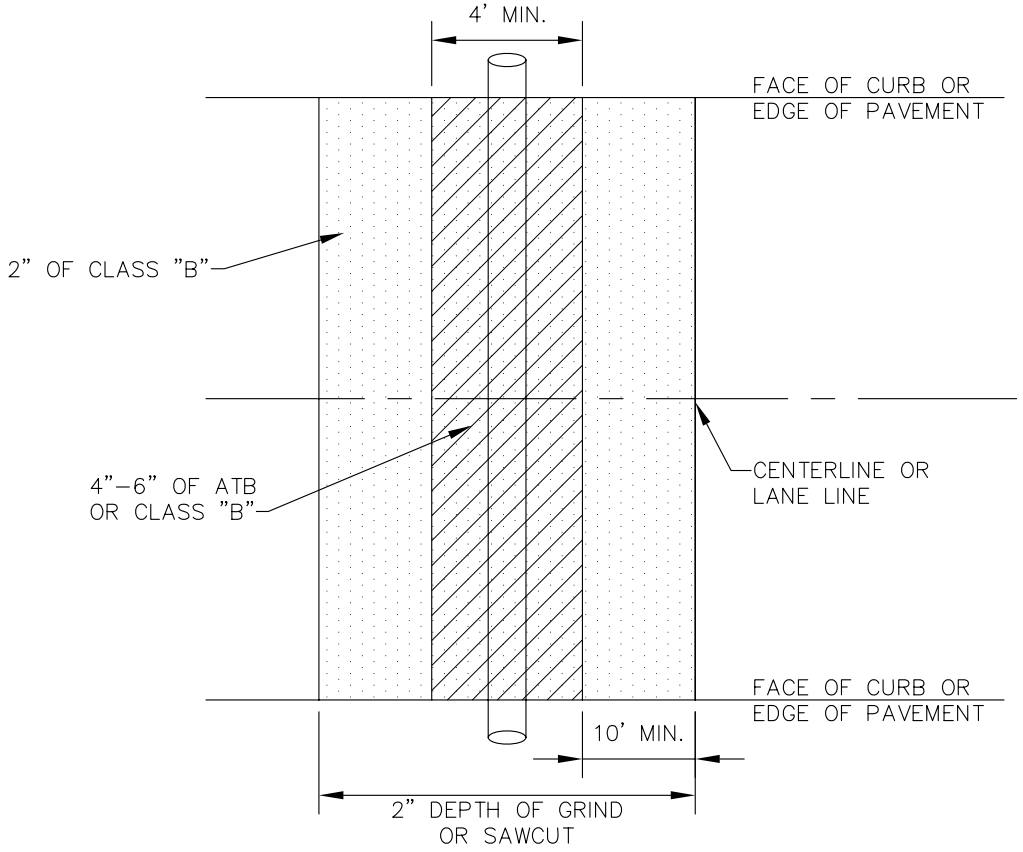
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

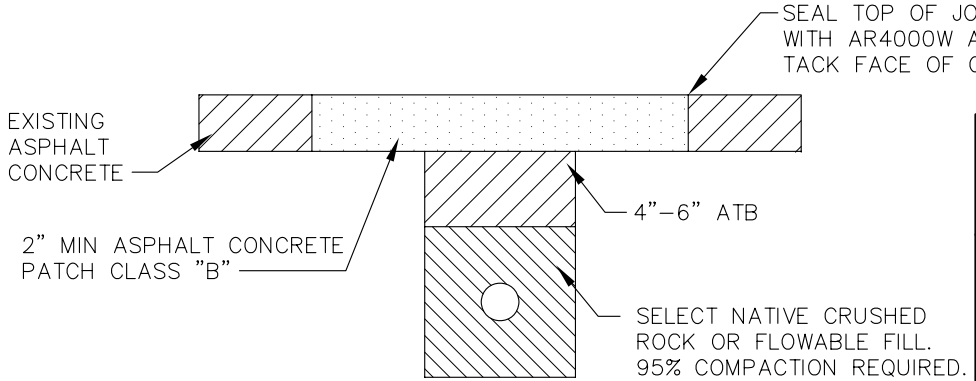
SECTION OF LONGITUDINAL OR TRANSVERSE CUT

LAST REVISED 5/20/99

STANDARD PLAN 3–703–002



OVERHEAD VIEW



CROSS SECTION

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

TRANSVERSE CUT

CITY OF Marysville WASHINGTON

LAST REVISED 10/05/06

STANDARD PLAN 3–703–003

Construction

3-800 Construction Control and Inspection

3-801 Basis for Control of the Work

A. Work performed in the construction or improvement of City streets, whether by or for a private developer or by City contractor, shall be done in accordance with these Standards and approved plans and specifications. It is emphasized that no work may be started until such plans are approved. The Public Works Director or designee shall approve any revision to such plans before being implemented.

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

Provisions of Section 1-05 of the WSDOT Standard Specifications shall apply, with the term "Public Works Director or designee" therein construed to be the Public Works Director or designee.

3-802 Subdivision, Commercial and Right-of-Way Inspection

On all road and drainage facility construction, proposed or in progress, which relates to subdivision, commercial and right-of-way development, City of Marysville Public Works will do control and inspection. Unless otherwise instructed by the Public Works Director or designee, construction events which require monitoring or inspection by Public Works are identified as follows, with prior notification to Public Works (telephone 360-363-8100):

A. Preconstruction Conference: Three working days prior notice. Conference must precede the beginning of construction and include contractor, designing Engineer, utilities, and other parties affected. Plan approvals and permits must be in hand prior to the conference.

B. Clearing and Temporary Erosion/Sedimentation Control: One working day notice prior to initial site work involving drainage and installation of temporary water

retention/detention and siltation control. Such work to be in accordance with the approved plans.

C. Utility and Storm-Drainage Installation: One working day notice prior to trenching and placing of storm sewers and underground utilities such as sanitary, water, gas, power, telephone, and TV lines.

D. Utility and Storm Drainage Backfill and Compaction: One working day notice before backfill and compaction of storm sewers and underground utilities.

E. Subgrade Completion. One working day notice at stage that underground utilities and roadway grading are complete, to include placement of gravel base if required. Inspection to include compaction tests and certifications described in these standards.

F. Curb and Sidewalk Forming: One working day notice to verify proper forming and preparation prior to pouring concrete.

G. Curb and Sidewalk Placement: One working day notice to check placement of concrete.

H. Crushed Surfacing Placement: One working day notice to check placement and compaction of crushed surfacing base course and top course.

I. Paving: Three working days notice in advance of paving with asphalt or portland cement concrete.

J. Structural: Three working days notice prior to each of critical stages such as placing foundation piling or footings, placement and assembly of major components, and completion of structure and approaches. Tests and certification requirements will be as directed by the Public Works Director or designee.

K. Final Construction Inspection: 15 working days prior to overall check of road or drainage project site, to include completion of paving and associated appurtenances and improvements, cleaning of drainage system, and all necessary clean-up. Prior to approval of construction work, acceptance for maintenance and release of construction performance bonds, the developer/contractor shall pay any required fees, submit any required maintenance and defect financial guarantees, provide a certificate of monumentation and submit one photo mylar or ink-on-mylar set and sets of blue line final, corrected plans (as-built) reflecting all minor and design plan changes of the road and drainage systems.

L. Final Maintenance Inspection: 30 days prior to the end of the maintenance period, Prior to release of the maintenance guarantee, there shall be successful completion of the maintenance period, repair of any failed facilities and the payment of any outstanding fees.

3-803 Penalties for Failure to Notify for Inspection

Timely notification by the developer as noted above is essential for the City to verify through inspection that the work meets the standard. Failure to notify in time may oblige the City to arrange appropriate sampling and testing after-the-fact, with certification by a professional Engineer. Costs of such testing and certification shall be borne by the developer. At the time that such action is directed by the Public Works Director or designee, the Public Works Director or designee may prohibit or limit further work on the development until all directed tests have been completed and corrections made to the satisfaction of the Public Works Director or designee. If necessary, the City may take further action as set forth in the municipal code.

3-804 Embankment Construction Control in Developments

The provisions of Section 2-03 of the WSDOT Standard Specifications apply in all respects to development construction unless otherwise instructed by the Public Works Director or designee. The following elements are mentioned for clarification and emphasis:

A. Embankment and Cut Section Compaction: Compaction of the top two feet of fill subgrade and top six inches of cut subgrade shall meet a minimum 95 percent of maximum density in accordance with WSDOT Standard Specifications Section 2-03.3(14) C - Method B. Subgrade fill below the top two feet shall be compacted to 90 percent of maximum density.

B. Testing for Density

1. Prior to placing any surfacing material on the roadway, it will be the responsibility of the developer/contractor to provide density test reports reviewed and approved by a professional Engineer. Optimum moisture content and maximum density shall be determined by methods cited in Section 2-03.3(14) D of WSDOT Standard Specifications or by other test procedures approved by the Public Works Director or designee. In fill sections, a minimum of one test shall be taken for every 1,000 cubic yards or fraction thereof and on each lift of embankment. In cut sections, the interval shall be every 100 feet of roadway. For work to be accepted tests must show consistent uniform density as required by tests referenced above.
2. In cases where tests do not meet the minimum standard, corrective action shall be taken such as adding water, aerating, replacing material or applying more compactive effort as directed by the developer's Engineer. Retests shall show passing densities prior to placing the next lift of subgrade fill.
3. For trenching in existing roads, see these standards.

C. Finishing Subgrade

After the subgrade preparation has been completed, it shall be thoroughly checked by the developer/contractor using a level, string line, crown board, or other means to determine that the subgrade conforms to the typical section or special plan conditions prior to placing any surfacing material,

3-805 Traffic Control in Development Construction

A. Interim Traffic Control: The developer/contractor shall be responsible for interim traffic control during construction on or along traveled City roads. When road or drainage work is to be performed on City roads that are open to traffic, the developer/contractor will be required to submit a traffic control plan for approval by the Public Works Director or designee prior to beginning the work. Traffic control shall follow the guidelines of Section 1-07.23 of the WSDOT Standard Specifications. All barricades, signs and flagging shall conform to the requirements of the MUTCD Manual. For more specific requirements for barricades, see Section 3-508 and Standard Plan 3-508-001. Signs must be legible and visible and should be removed at the end of each workday if not applicable after construction hours.

B. Temporary Road Closures and Detours: When temporary road closures cannot be avoided, the developer/contractor shall post "To Be Closed" signs a minimum of five days prior to the closing. The types and locations of the signs shall be shown on a detour plan. A detour plan must be prepared and submitted to the Public Works Director or designee at least 10 working days in advance, and approved prior to closing any City street. In addition, the developer/contractor must notify, in writing, local fire, school, law enforcement authorities, Metro transit, and any other affected persons as directed by the Public Works Director or designee at least five days prior to closing.

C. Haul Routes: If the construction of a proposed development is determined by the Public Works Director or designee to require special routing of large trucks or heavy construction equipment to prevent impacts to surrounding roads, residences or businesses, the developer/contractor shall be required to develop and use an approved haul route.

When required, the haul route plan must be prepared and submitted to the Public Works Director or designee and approved prior to beginning or continuing

construction. The haul route plan shall address routing, hours of operation, signage and flagging, and daily maintenance.

If the developer/contractor's traffic fails to use the designated haul route, the Public Works Director or designee may prohibit or limit further work on the development until such time as the requirements of the haul route are complied with,

D. Haul Road Agreement: When identified as a need by the SEPA review process or by the Public Works Director or designee, a haul road agreement shall be obtained by the franchised utility, developer or property owner establishing restoration procedures to be performed upon completion of the haul operation,

3-806 City Forces and City Contract Road Inspection

Road construction performed by City forces or by contract for the City will be inspected under the supervision of the Public Works Director or designee.

3-807 Call Before You Dig

Builders are responsible for timely notification of utilities in advance of any construction in right-of-way or utility easements. The utility One-Call Center phone number 1-800-424-5555 should be prominently displayed on the work site.

3-808 Record Drawings

Prior to acceptance of improvements a Professional Engineer or Professional Land Surveyor currently licensed in the State of Washington shall prepare the Record Drawings. The P.E. or P.L.S. shall verify that installation of roads and utilities was in accordance with the approved construction plans. The Record Drawing plan is to include accurate locations, elevations and sizes of all constructed features and utility easements, noting on the appropriate sheet any variance to the approved construction plans. All sheets of the original approved construction plans will be included in the As-Built plans. Record Drawings will bear the signature, stamp and date of the licensed Professional Engineer or Land Surveyor preparing them.

Preliminary Record Drawing Plan Review Process

Submit 3 PRINTS FROM THE PLOTTED DIGITIAL FILE for review to Engineering Division. See Format Requirement.

If review of the preliminary Record Drawings reveal errors and/or omissions, the drawings will be returned to the Engineer/Surveyor for corrections. The Engineer/Surveyor shall make all corrections in the digital copy, re-plot and resubmit three revised preliminary Record Drawings and redlines for re-review. Upon approval of preliminary Record Drawings, the Engineer/Surveyor will be notified to proceed with the "Final Submittal".

Final Record Drawing Plan Submittal

The Final "Record Drawing" plan shall be submitted to the Engineering Division. See Format Requirements.

Each drawing, except for the Digital file, shall bear the P.E./P.L.S. Stamp, Signature and Date and be reproduced on the following media:

Digital file on CD or DVD

Full size MYLAR*

Three sets of full size PRINTS, FOLDED.

*Sepia Mylars or Xerox type copies will not be accepted as a substitute for Mylar.

Format Requirements

1) **Digital File Format**

   A) **AutoCAD** Release 2000 ".DWG" format, including all support files required to display or plot the files in the same manner as they were developed shall be delivered along with these files. These files include but are not limited to Customized Line Styles Libraries, Cell Libraries, Font Libraries, Pen Tables and Referenced Files, (AutoCAD) Block Libraries, Font Files, Menu Files, Plotter Setup and Referenced Files. **Do not include P.E./P.L.S. stamps, signature and border files.**

   B) The files will be submitted on a CD or DVD. Each disc will be labeled with the project name and the name of the company that prepared them.

   C) All Record Drawing changes will be made in the digital format.
   Changes to text, for example: invert elevations, dimensions, notes, etc. will be lined out with the As-Built text placed above it.
   Changes made to Graphic features, for i.e.: pipe, catch basins, hydrants, etc. shall be moved to reflect their accurate As-Built locations.

   D) The drawing will be at full scale. Each sheet shall be identified with the words "**Record Drawings**" in bold block letters 3/8" plotted height placed above the title block.

The date of completion and the words "**REVISED Record Drawing**" shall be placed in the revision block.

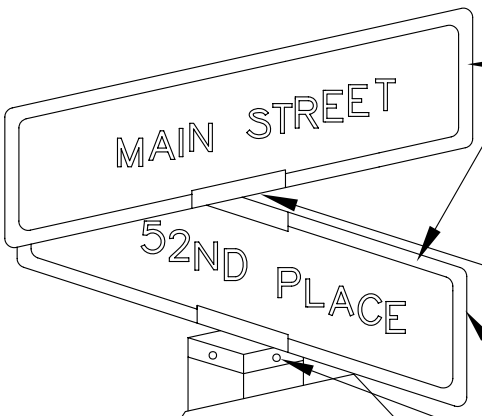
E) The drawing will be established in model space using the state plan coordinate system, Washington North Zone 4601, with horizontal survey control of NAD 83 and vertical control of NAVD 88, tied to any 2 City of Marysville Horizontal Control Monuments.

F) A detailed digital and hard copy list of asbuilt water, sewer & storm, lighting, signal and signal component layers/levels and their contents. The digital copy will be included with and in the same format as the drawing file.

2) Hard Copy Format

A) Three sets of prints derived from the Record Drawing digital file will include the Stamp, Signature and Date of the Professional Engineer or Professional Land Surveyor that prepared the Record Drawing document.

B) Record Drawing submittals are to include <u>all</u> sheets of original city approved construction drawings except TESCP and City Standard Details, i.e.: Title sheet, Plan(s), Profile(s), Sensitive Areas/Wetlands and Site Specific Details.



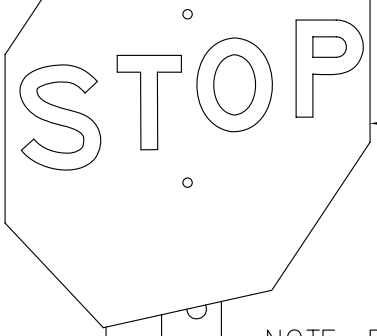
6 X 30 SIGN
4" LETTERS OR NUMBERS SERIES D
(PL–DR–ST–AVE 2" LETTER SIZE)

9 X 30 SIGN
6" LETTERS OR NUMBERS
(30 MPH OR MORE) SERIES C
(PL–DR–ST–AVE 3" LETTER SIZE)

808 EX BRACKET

EXTRUDED DOUBLE FACE

850 BRACKET, 5 1/4 LONG



MIN. 30"

30" MIN. STOP SIGN
4" BELOW TOP OF POST
FASTENED WITH 2 3/8" ALUMINUM
DRIVE RIVETS.

NOTE: REGULATORY SIGNS, WARNING SIGNS AND GUIDE SIGNS MEET MUTCD SPECIFICATION GUIDELINES. ALL SIGNS SHALL HAVE ASTM D4956–01 TYPE IV RETROREFLECTIVE SHEETING.

MOUNTING HEIGHT
MIN.
7' TO BOTTOM OF SIGN

14 GAGE 2X2 HOT DIP GALVANIZED ASTM A653 WITH 9" MIN. PENETRATION INTO ANCHOR. COATING DESIGNATION G–140. 7/16" DIA QUICK PUNCH HOLES ON 1" CENTERS ON ALL FOUR SIDES WITH TRUE ALIGNMENT.

30" – 12 GAGE 2.25X2.25 ANCHOR
MIN. 2 HOLES/MAX. 4 HOLES ABOVE
THE GROUND

8"X8" CONCRETE PAD

12"

UM–SQCBL
CORNER BOLT
THRU 2.5" TUBE

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

POST MOUNTING DETAIL FOR STREET NAMES AND STOP SIGN

LAST REVISED 04/18/07

STANDARD PLAN 3–805–001

Appendix A

Construction Plan Completeness Checklist

Project Name:_____ **PA Number** _____

Construction Plan Examiner:_____

Date:_____

Review #: 1 2 3 4 5

NOTE: All materials submitted for review must use and comply with City of Marysville Engineering Design and Development Standards (EDDS), Marysville Municipal Code (MMC), the most recent adopted version of the Department of Ecology's Stormwater Management Manual for Western Washington (SWMM), and the Low Impact Development Technical Guidance Manual for Puget Sound (LID). Any deviations shall include a deviation request form. MMC and City of Marysville EDDS can be found on line at http://ci.marysville.wa.us/communitydev/planning/index.html.

FILE INVENTORY AND PLAN SUBMITTAL

Plans shall comply with the following reports and materials that are applicable:

- ☐ Preliminary Plat Map
- ☐ Hearing Examiner's Report & Related Correspondence (check for latest report)
- ☐ Preliminary Plat Approval Ordinance
- ☐ SEPA Checklist

Submittal shall contain: (check satisfied conditions, circle missing elements)

- ☐ A complete set of surveyed construction plans prepared by a licensed surveyor and stamped by a Professional Engineer. Plans need to include applicable information such as a Cover Sheet, Grading Plan, SWPPP, Drainage Plan, Signage and Striping Plan, Sanitary Sewer and Water Plans, Roads and Transportation Plans, and Construction Notes and Details.
- ☐ A Drainage Report
- ☐ A Geotechnical/Hydrogeotechnical Investigation Report
- ☐ A Sensitive Areas or Wetland Investigation Report

Note: Fees for review of construction plans will be charged per MMC 15.12.

GENERAL REQUIREMENTS FOR PLAN SETS

- ☐ Sheet size shall be 24" x 36" unless otherwise requested.
- ☐ Construction plan view shall be drawn to common engineering scale (maximum1"=50')
- ☐ The ratio of the vertical to the horizontal scale shall be 1V:10H.
- ☐ All details and cross sections must have titles and identify scale. Details must reference a source.
- ☐ For each standard detail in the engineered construction drawings plan set, include the corresponding City of Marysville Standard Detail number from the EDDS or other source. When possible, correlate the standard detail number to the plan view sheets.

- ☐ All details, cross sections, and profiles must be labeled and referenced out on their corresponding plans.
- ☐ Roads and general lot layout must conform to the approved preliminary plat map.
- ☐ Construction Plans must comply with Hearing Examiners Decision or Notice of Preliminary Approval.
- ☐ Notes and specifications are to be provided directly from EDDS, WSDOT Standard Specifications, manufacturer specifications, LID specifications, and materials specifications, and are to be provided in their entirety. At a minimum, plan sets are to contain the following applicable notes from the EDDS:

    - ☐ General Notes
    - ☐ Storm Drainage Notes
    - ☐ Sewer Notes
    - ☐ Water Notes
    - ☐ Site Grading & TESCP Notes
    - ☐ Temporary Gravel Construction Entrance Notes
    - ☐ Hydroseeding General Notes
    - ☐ Biofilter Swale Planting Notes
    - ☐ Stand Pipe & Sedimentation Pond Maintenance Notes
    - ☐ Maintenance of Silt Barrier Notes
    - ☐ Construction sequence and schedule

GENERAL REQUIREMENTS FOR ALL PLAN SHEETS

All sheets in the construction plans shall include the following information:

- ☐ a project title.
- ☐ a page title (For example: Site Plan, Drainage Plan…).
- ☐ a Title Block to contain Engineering Firm, Project name, Name of sheet, Sheet __ of __, located on right margin.
- ☐ a City of Marysville Project Number.
- ☐ a Professional Engineer's seal, signature, date of signature, and expiration date.
- ☐ ¼ Section, Section, Township and Range centered at top border on all sheets.
- ☐ an Acknowledgement Block for Engineering Services Manager with note "Approval for 18 months from date of signature", located in lower right corner.
- ☐ an approval Block for Fire Marshal on Water Plans or other applicable plans.
- ☐ an approval Block for Post Master on applicable plans.
- ☐ a note on all sheets that "The Contractor shall verify the location of all existing utilities prior to any construction. Agencies involved shall be notified within a reasonable time prior to the start of construction." Provide a prominent note "Call 1-800-424-5555 Before You Dig".
- ☐ a north arrow.
- ☐ an engineering scale on site plans shall not be more than 1" = 20' nor less than 1" = 50'.
- ☐ a complete legend for line types, hatches, and symbols on plans and profiles.

GENERAL REQUIREMENTS FOR ALL SITE AND TOPOGRAPHIC INFORMATION

- ☐ Show onsite benchmark locations and provide descriptions.
- ☐ All property lines are to be shown with bearings, distances, and ties to controlling corners or subdivision corners.
- ☐ Show location, size and type of any existing or proposed structures, impervious areas, drainage facilities, wells, drain fields, drain field reserve areas, roads, pavement, striping, signs, easements, setbacks, and utilities on the site. Clearly differentiate between proposed and existing elements.

- ☐ Property lines are to be shown with bearings, distances, and ties to controlling corners or subdivision corners. Show existing and proposed drainage pattern(s), storm drainage and LID facilities (e. g. ditch lines, culverts, catch basins, french drains, surface drainage or sheet flow arrows). Clearly differentiate between proposed and existing.
- ☐ Show location of all property boundaries, easements, lakes, streams, creeks and structures on site and within 50 feet of site boundaries.
- ☐ Show location of all wetlands, sensitive areas, primary association areas for threatened and endangered species, and erosion hazardous areas and landslide areas on site and those within 100 feet of the site boundaries.
- ☐ Show location of all setbacks and buffers from critical areas, property lines, structures, and utilities.
- ☐ Show location of all existing and proposed native growth protection areas (NGPA's) or native growth easements (NGPAE) on the site.
- ☐ Show boundaries or limits of site disturbance, clearing, and grading.
- ☐ Show location of any off-site critical areas, and boundaries of areas which are affected by the construction.
- ☐ Map existing wells, drain fields, infiltration systems, rain gardens and drain field reserve areas located within the distances of concern.
- ☐ Show location and type of all existing and proposed water quality and source control BMPs.
- ☐ Show location and type of existing and proposed water quality control facilities or measures such as detention ponds, rain gardens, roof gardens or other BMP's. Provide high water elevations for design of infiltration systems, if any.
- ☐ Grading setback details are to include 1/2 height of fill, 1/5 height of cut, 2' minimum.

COVER SHEET

- ☐ Provide a preliminary plat map that complies with requirements outlined in MMC 20.16.020 or 20.20.030.
- ☐ Provide a Vicinity Map with north arrow and scale.
- ☐ Provide name, address and phone number of applicant or developer, engineer, architect, contractors, etc.
- ☐ Provide a legal description of site along with property tax account number(s) of subject property and adjacent properties.
- ☐ Provide a Sheet Index.
- ☐ Provide a horizontal and vertical datum or basis for elevation and the benchmark used for elevation control (NAD 83 and NAVD 88 datum only).

GRADING PLAN

- ☐ Provide cut volumes and fill volumes in cubic yards.
- ☐ Depict locations considered for cut and fill calculations.
- ☐ Provide finished floor elevations if applicable.
- ☐ Provide lot areas if applicable.

CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

Note: The SWPPP will comply with all criteria outlined in Vol. 1, Ch. 3 of the SWMM. For LID developments, the SWPPP will also comply with the LID Manual.

- ☐ Address all 12 Elements of the SWPPP.
- ☐ Show location and type of proposed measures (BMPs) for Temporary Erosion and Sedimentation Control (TESC) or SWPPP as contained in Vol. 2 of the DOE Stormwater Management Manual for Western Washington.

- ☐ Provide details and notes for erosion control.
- ☐ Show locations of temporary stockpiles.
- ☐ Show all construction BMP's and reference or provide standard details.
- ☐ Show construction site access.
- ☐ Show flow arrows or paths for stormwater control during construction.
- ☐ Protect drain inlets.
- ☐ Stabilize soils, slopes, channels and outlets.
- ☐ Control sources of pollution.
- ☐ Control dewatering (sites requiring dewatering will need to develop a dewatering plan).

DRAINAGE PLAN

Note: The Drainage Plan and stormwater design will comply with Chapter 4 of the EDDS, Chapter 14 of the MMC, the SWMM, and the LID Manual.

- ☐ Provide spot elevations/flow arrows/contours for stormwater flow at post-development construction.
- ☐ Convey or control water from proposed and existing roads and/or adjacent properties.
- ☐ Show locations of emergency overflows and bypasses.
- ☐ Show roof drains and yard drains.
- ☐ Provide a 20' minimum drainage easement for open channel storm drainage facilities and closed storm drainage facilities.
- ☐ Provide a 15' minimum building setback line from the top of bank of a defined channel.
- ☐ Provide a 10' minimum building setback for closed drainage systems.
- ☐ If a drainage easement is to run along a lot line within a subdivision, the easement may straddle the lot line provided the drainage facilities can be located entirely along one lot.
- ☐ Access is to be provided for inspection and maintenance purposes for drainage structures that are to be located within an easement.
- ☐ No storm sewer pipe within a drainage easement shall have its centerline closer than 5' to a rear or side property line.
- ☐ Minimum storm sewer pipe diameter in right of way and between catch basins and/or manholes shall be 12".
- ☐ 24" pipe cover is preferred for storm drain systems. Alternative pipe material and City approval will be required for pipes with less than 24" of cover.
- ☐ Show all sizes, pipe materials and structures.
- ☐ Show direction of pipe flow.
- ☐ Show pipe's invert, slope, length, type, and catch basin grate elevation on plan view.
- ☐ Show existing and proposed storm drainage system profile(s) with pipe size, slope, catch basin type, location, station, rim and invert elevations.
- ☐ Provide energy dissipater at outfalls

STORMWATER SITE PLAN (DRAINAGE REPORT)

Note: The Stormwater Site Plan shall comply with Volume 1of the SWMM.

- ☐ The Stormwater Site Plan will be submitted in the following format:
  - ☐ Section1 Introduction – Provide a project description, pertinent details, and proposed land uses.
  - ☐ Section 2 Existing Site Conditions – Address subject matter outlined in Volume 1, Chapter 3.1.1 in the SWMM. Provide a figure that illustrates the subject matter.
  - ☐ Section 3 Developed Site Conditions – Address subject matter outlined in Volume 1, Chapter 3.1.2

in the SWMM. Provide a figure that illustrates the subject matter.

- ☐ Section 4 Off Site Analysis – Address subject matter outlined in Volume 1, Chapter 3.1.3 in the SWMM. Provide a figure that illustrates the subject matter.
- ☐ Section 5 Minimum Requirements – Address all applicable Minimum Requirements in Volume 1, Chapter 2 of the SWMM. Show how you arrived at the requirements by including Figure 2.2 or 2.3.
- ☐ Section 6 Stormwater Control Plan – Address subject matter outlined in Volume 1, Chapter 3.1.5 in the SWMM. Discuss the following information:
  - Existing Site Hydrology
  - Developed Site Hydrology
  - Treatment and Flow Control Needed
  - Performance Standards and Goals per Volume 1, Chapter 4 of the SWMM for BMP and Facility Selection Process. Include Figure 4.1 from the SWMM showing your selection process.
  - Flow Control System
  - Water Quality System
  - Conveyance System Analysis.
- ☐ Section 7 SWPPP – Address all 12 Elements outlined in Volume 1, Chapter 3.1.6 and Volume 1, Chapter 2 of the SWMM.
- ☐ Section 8 Project Overview – Address subject matter outlined in Volume 1, Chapter 3.1.7 in the SWMM.

- ☐ Hydrologic Analysis and Flow Control Design shall be analyzed using the most recent version of the Western Washington Hydrology Model.
- ☐ Include all computer generated reports, sources, references, tables, graphs, aerials, maps, and calculations used for all design and analysis in appendices.

ROADS AND TRANSPORTATION PLAN

Note: Road and transportation design shall comply with Chapter 3 of the EDDS and Chapters 11 and 12 of the MMC.

- ☐ Travel and parking lane(s) must be labeled on the roadway sections.
- ☐ Provide typical roadway sections and identify street names and classifications.
- ☐ Provide road alignment with 100 foot stationing and stationing at PCs and PTs with bearing and distances on centerlines
- ☐ Provide right of way lines and widths for existing and proposed road and intersecting roads
- ☐ Provide channelization plan and match or tie into existing channelization.
- ☐ Provide a signalization plan.
- ☐ Provide street Illumination per EDDS 3-506. PUD submittal may be required.
- ☐ Provide curve data with radius, delta, arc length, and tangent distance for all curves. These may be shown in a curve table.
- ☐ Show details for frontage improvements and overlays.
- ☐ Show limits of existing and proposed paving including grinds and overlays.
- ☐ Side slopes shall not be steeper than 4:1 and are to be designed per EDDS 3-502.
- ☐ All new residential access streets shall have traffic calming devices per EDDS 3-525.
- ☐ Provide mailbox location and detail with Post Master approval per EDDS 3-505.
- ☐ Rock facings over 4' in height are to be designed by a Geotechnical Engineer and are subject to approval by the Public Works Director or Designee.

- ☐ Road grades are to comply with EDDS 3-201, 3-202, and 3-203.
- ☐ Minimum road grade is to be 0.5%.
- ☐ Grades are to be shown to 3 decimal places and as a percent.
- ☐ Vertical curves are to show elevations and stations of vertical PI (s) , P.C. (s) , PT (s), sag (low point) and crest (high point).
- ☐ Super elevation criteria/data is required to be shown for all roads greater than 25 MPH design speed.
- ☐ Include sight distance triangles at each roadway intersection. Sections 3-211 and 3-212 of the EDDS provide design standards for the sight distance triangles.

SANITARY SEWER PLAN

Note: Sanitary sewer design shall comply with Chapter 5 of the EDDS and Chapter 14 of the MMC.

- ☐ Show location of streets, right-of-ways, easements, existing utilities, and sewers.
- ☐ Show ground surface, pipe type, class and size, manhole stationing, invert and surface elevation at each manhole, and grade of sewer between adjacent manholes. All manholes shall be numbered on the plans and correspondingly numbered on the profile. Where there is any question of the sewer being sufficiently deep to serve any residence, the elevation and location of the basement floor, if basements are served, shall be plotted on the profile of the sewer which is to serve the house in question. The Developer shall state that all sewers are sufficiently deep to serve adjacent basements, except where otherwise noted on the plans.
- ☐ Show all known existing structures, both above and below ground, which might interfere with the proposed construction, particularly water mains, gas mains, storm drain, overhead and underground power lines, telephone lines, and television cables.
- ☐ Show all utility easements and include County recording numbers.
- ☐ Show details in scale drawings which clearly show special sewer joints and cross sections, and sewer appurtenances such as manholes and related items and all other items as required by the City to clearly identify construction items, materials, and/or methods.
- ☐ Sanitary sewers shall be placed with minimum 5' cover from finished grade, ditch bottom or natural grade.
- ☐ Sewer mains to be installed shall be of material noted below:
  - Less than 5' cover over top of pipe: D.I.P. Class 52: City engineer approval required.
  - 5' - 18' cover over top of pipe: PVC, ASTM D 3034, SDR 35 or ASTM F 789.
  - Deeper than 18': D.I.P. Class 52, or C-900.

WATER PLAN

Note: Water distribution design and construction shall conform with Chapter 2 of the EDDS and Chapter 14 of the MMC.

- ☐ Water mains shall be placed with minimum 42" cover from finished grade, ditch bottom or natural grade.
- ☐ Pressure reducing stations and pressure reducing valves shall be designed in accordance with EDDS 2-080 and take into consideration the pressure zones outlined in the City of Marysville Comprehensive Plan.
- ☐ Show and/or reference all details for connections, trenching, and installation.
- ☐ Show location and address all design elements for fire hydrants per EDD 2-060 and Fire Marshall requirements.
- ☐ Pipes being laid on curves shall be designed per EDDS 2-230.

Appendix A

Authority and abbreviations used:

EDDS = Sno. Co. Engineering Design and Development Standards
MMC =Marysville Municipal Code
WSDOT = Wash DOT Standards
SWM = Storm Water Manual
DM = Sno. Co. Drainage Procedures Manual
H = WA State Hydraulics Manual
P = Policy by Director of Community Development
GEP = Gen Engineering Practice (Standard of Industry)
HE = Hearing Examiner's Decision or Notice of Preliminary Approval

a. Plat Ordinance and Approved Preliminary Plat.
b. SEPA Mitigation's
c. Community Plan P-suffix conditions.
d. Sensitive Areas Ordinances (21.54)/guidelines.
e. Critical Drainage Basin Criteria
f. King County Road Standards (Ordinance 8041)
g. Surface Water Management Manual (King County Code 9.04)
h. Other applicable Ordinances/Codes shoreline, etc.).
i. HPAs, DOT approvals.
j. Bond Quantity and R/D Inventory Sheets

Appendix B

____1. If there is a stream, river, steep slopes or wetland area on or adjacent to the project site, complete this section.

a) FLOOD PLAIN (Major Rivers and Streams):
- ____ Is there a 100 year (rivers) or 25 year (streams) flood plain analysis?
- ____ Does plan identify flood plain, elevations delineated showing floodway/fringe areas, complete a State Flood Control Zone Checklist).
- ____ Does bridge elevation provide a 6' (rivers) or 2' (streams) freeboard?
- ____ Is the minimum first floor elevation shown?
- ____ Fisheries Hydraulic Permit Application?

b) STEEP SLOPES:(fill in definition & code.)
- ____ Are steep slopes on or adjacent to the site?
- ____ Class III Landslide Hazard KCC 21.54.140?
- ____ Slopes 40% or greater?
- ____ Are special soils studies required/submitted?
- ____ Is top of slope identified on plan? Reference Admin. Guidelines 2/1/87?

c) WETLANDS:
- ____ Biologist's Report provided?
- ____ Edge of wetland shown on plan?

d) N.G.P.E.
- ____ Are native growth protection easements shown on plans?

e) B.S.B.L.
- ____ Are building set backs shown on plans (normally 15 feet)

f) ____ Are restriction notes shown on the plans/map page? (Clarify restriction notes.)

____2. OFF-SITE IMPROVEMENTS: If the plan shows work off site, is there a slope/construction easement/permission letter from the property owner?

____3. STRUCTURES: If the plan calls for bridges, concrete walls, dams or other special structures, be sure approval restriction note is added to plans. (structure designs may require separate approval by a structural engineer.)

____4. Geotechnical report prepared by a geotechnical engineer may be required if site inspection or information supplied by the applicant indicates that the grading or drainage system is within a critical area, or that soil hydrologic or geologic conditions may exist on site which merit the examination of more detailed information in order to adequately address project safety, stability, or drainage issues.
The Public Works Director or designee will determine the scope of the report. Recommendations included in the geotechnical report and approved by the director shall be incorporated in the drainage plans or specifications. [DM pg. 13 & P pending]

____5. HPA included or letter from Fisheries stating it isn't needed.

____6. Corp of Eng. Permit included.

____7. Provide bank stabilization, to the satisfaction of the Director, for all unstable river and stream banks within proposed subdivision.

Appendix B

Principal, Minor, and Collector Arterial Lane Configuration

Arterial Classification	Name	Number Of Lanes	Bicycle Lane (5 feet)	Streetscape [1]	Right Of Way Width (feet) [2]
Principal					
East/West					
	SR 92 Extension (35th/40th St): 83rd Ave to SR 9	5	No	Yes	80
	SR 528: I-5 to SR 9	5	No	Yes	80
	88th St: I-5 to State Ave	5	No	Yes	80
	SR 531: City Limits to City Limits*	5	Yes	Yes	90
	84th St: 83rd Ave to SR 9	5	Yes	Yes	90
	156th St. NE: City Limits to City Limits	5	No	Yes	90
	116th St: I-5 to State Ave	5	No	Yes	80
	Sunnyside Blvd: 47th Ave to 60th Dr	5	Yes	Yes	90
North/South					
	27th Ave.: SR 531 to Twin Lakes Blvd	5	No	Yes	80
	State Ave: Ebey to City Limits	5	No	Yes	80
Minor					
East/West					
	1st St: Cedar Ave to State Ave	3	Yes	No	60
	3rd St: State Ave to 47th Ave	3	Yes	Yes	70
	40th St: Sunnyside to 83rd Ave	3	No	Yes	60
	44th St: 83rd to SR 9	3	No	No	60
	52nd St: Sunnyside to 75th Ave	3	Yes	No	60
	80th St: Cedar Ave to State Ave	3	Yes	No	60
	84th St: 67th Ave to 83rd Ave	3	No	Yes	70
	88th St: State Ave to 83rd Ave	3	Yes	Yes	70
	136th St NE: I-5 to City Limits	3	Yes	No	60
	152nd St NE: State Ave to City Limits	3	Yes	Yes	70
	164th St: 27th Ave to Twin Lakes Blvd	3	No	Yes	60
	169th St: 27th Ave to Twin Lakes Blvd	3	No	Yes	60
	Grove St: Cedar to 67th Ave	3	Yes	No	60
	Soper Hill Rd: Sunnyside Blvd to SR 9	3	Yes	Yes	70
	Sunnyside Blvd: State Ave to 47th Ave	3	Yes	Yes	70
	Sunnyside Blvd: 60th Dr to Soper Hill Rd	3	Yes	Yes	70
	Twin Lakes Blvd: 27th Ave to 156th St	3	No	Yes	60
North/South					
	27th Ave: Twin Lakes Blvd to 169th St	4	No	Yes	70
	27th Ave: 169th St to 164th St	3	No	Yes	60
	47th Ave: 3rd St to Armar Rd	3	Yes	No	60
	51st Ave NE: Armar Rd to 172nd St	3	Yes	No	60
	67th Ave: 44th St to 172nd St	3	Yes	Yes	70
	67th/71st Connection: 40th to 44th	3	Yes	Yes	70
	71st Ave: Soper Hill Rd to 40th St	3	Yes	Yes	70
	83rd Ave. NE: SR 528 to 84th St	3	Yes	No	60
	83rd Ave NE: Soper Hill Rd to SR 528	3	Yes	Yes	70
	Armar Road: 47th Ave to 51st Ave	3	Yes	No	60

	Cedar Ave: 1st St to 80th St	4	Yes	No	75

Arterial Classification	Name	Number Of Lanes [4]	Bicycle Lane (5 feet)	Streetscape [1]	Right Of Way Width (feet) [2]
Collector					
East/West					
	1st St: Ash Ave to Cedar Ave	2	Yes	No	60
	2nd St: State Ave to 47th Ave	2	No	No	60
	3rd St: Ash Ave to Beech Ave	2	Yes	Yes	70
	5th St: Ash Ave to Beech Ave	2	No	No	60
	8th St: Ash Ave to 47th Ave	2	Yes	No	60
	44th St: 67th Ave to 83rd Ave	2	Yes	No	60
	76th St: State Ave to 47th Ave	2	No	No	60
	80th St: State Ave to 51st Ave	2	Yes	No	60
	84th St: State Ave to City Limits	2	No	No	60
	100th St NE: State Ave to 76th Ave	2	Yes	No	65
	108th St: 51st Ave to 67th Ave	2	Yes	No	60
	116th St: State Ave to 44th Dr	2	No	Yes	60
	132nd St: 51st Ave to 67th Ave	2	Yes	No	60
	164th St: 22nd Ave to 27th Ave	2	No	Yes	60
	169th St: 19th Ave to 27th Ave	2	No	Yes	60
	Grove St: Ash Ave to Cedar Ave	2	Yes	No	60
	Grove St: 67th Ave to 83rd Ave	3	Yes	Yes	75
North/South					
	19th Ave: SR 531 to 169th St	2	No	Yes	60
	22nd Ave: SR 531 to 164th St	2	No	Yes	60
	22nd Ave Extension: 164th St to 136th St	2	No	Yes	60
	25th Ave: SR 531 to 164th St	2	No	Yes	60
	47th Ave: 2nd St to 3rd St	3	No	No	75
	47th Ave: Armar Rd to 84th St	2	Yes	No	60
	48th Dr: City Limits to 100th St	2	No	No	60
	79th Ave Soper Hill Rd to 40th St	2	No	No	60
	83rd Ave: 84th St to 96th St	2	No	Yes	60
	87th Ave: SR 528 Rd to 84th St**	2	No	Yes	55
	87th Ave: 84th St to 96th St	2	No	Yes	60
	87th Ave: Soper Hill Rd to SR 528	2	No	Yes	60
	Ash Ave: 1st St to 3rd St	1	No	No	55
	Ash Ave: 5th St to Grove St	2	No	Yes	65
	Beach Ave: 1st St to Short St	3	Yes	Yes	75
	Short St: Beach Ave to Cedar Ave	3	Yes	Yes	75
	Shoultes Rd: 100th St to 108th St	2	No	No	60

* SR 531 is to be constructed with Medians in place of two-way left turn lanes.

** Collector Arterial built to Neighborhood Collector Standard

1. 5 foot planter strip between the back of curb and sidewalk. If within downtown core tree wells with grates may be substituted.
2. Right of way width may be increased as determined by the Public Works Director or designee
3. See Standard Plans 3-201-001 and 3-201-002
4. Collector Arterial shall be striped with a left turn pocket and removal of parking at roadway intersections.

Appendix C

DEVELOPMENT STANDARD HANDOUT

Trench Backfill and Restoration

A. Materials and workmanship shall be in conformance with the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction. Construction shall be in conformance with Standard Plans 3-703-001 through 3-703-003, with the details and conditions outlined in the Right-of-Way Use Permit, and with the following:

(1) Trench restoration shall be accomplished with a patch or an overlay as required by the City Engineer.

(2) If a patch is used, the trench limits shall be sawcut prior to final patch.

(3) All trench and pavement cuts shall be made by sawcuts or by grinding. The sawcuts or grinding shall be a minimum of 1 foot outside the trench width or as directed by the city inspector.

(4) If the Right-of-Way Use Permit requires an overlay, then the contractor may use a jackhammer or drum grinder for the cutting of the existing pavement.

(5) Within the top 4 feet of trenching, backfill shall be crushed surfacing materials or a controlled-density fill.

(6) If the existing material is determined by the City Inspector to be suitable for backfill and the trench is not perpendicular to a travel lane or driveway, the contractor may use the native material as long as the top 8 inches is crushed surfacing material.

(7) Material used for backfill below 4 feet in depth must be approved by the City Inspector.

(8) All trench backfill shall be compacted to 95% maximum density, as described in Section 2-03 of the Standard Specifications.

(9) Backfill compaction shall be performed in 8-to12-inch lifts. The compaction tests shall be performed in maximum increments of 2 feet. The test results shall be given to the City Inspector for review and approval prior to paving. Material testing will be required for trench backfill (native or imported), asphalt, and concrete. Testing shall be performed by a certified independent testing laboratory. The cost of testing is the responsibility of the franchise utility or contractor. The number of tests required shall be the same as for asphalt density testing, or as directed by the inspector.

(10) Temporary restoration of trenches for overnight use shall be accomplished by using cold mix, asphalt-treated base (ATB), or steel plates. ATB used for temporary restoration may be dumped directly into the trench, bladed out, and rolled. After rolling, the trench must be filled flush with asphalt to provide a smooth riding surface.

(11) ATB shall be placed to the compacted depth as shown on standard plans or as directed by the City Engineer. Asphalt cement shall be paving asphalt AR-4000W. Materials shall conform with Section 9-02.1(4) of the Standard Specifications.

(12) Tack shall be emulsified asphalt grade CSS-1 as specified in Section 9-02.1(6) of the Standard Specifications and shall be applied to the existing pavement and edges of sawcuts as specified in Section 5-04 of the Standard Specifications.

(13) Asphalt concrete Class B shall be placed on the prepared surface by an approved paving machine and shall be in accordance with the requirements of Section 5-04 of the Standard Specifications, except that longitudinal joints between successive layers of asphalt concrete shall be displaced laterally a minimum of 12 inches, unless otherwise approved by the Inspector. Fine and coarse aggregate shall be in accordance with Section 9-03.8 of the Standard Specifications. Asphalt concrete over 2 inches thick shall be placed in equal lifts not to exceed 2 inches each.

(14) Cuts for trenches in all street surfaces, walks, and driveways shall be either ground or sawcut. Ground joints shall be feathered and shimmed to provide a smooth surface. Feathering and shimming shall be accomplished by raking out the oversized aggregates from the class B mix. Surface smoothness shall conform to Section 5-04.3(13) of the Standard Specifications. The paving shall be corrected by removal and repaving of the trench only.

(15) Compaction of all lifts of asphalt shall be at an average of 92% of maximum density as determined by WSDOT Test Method 705. The number of tests required per square foot of trenching shall be as follows:

- One test for less than 50 square feet of trenching area
- Two tests for 50 to 100 square feet of trenching area
- Three tests for 100-plus to 300 square feet of trenching area
- One test for every 200 square feet over 300 square feet of trenching area or every 100 lineal feet of trench, if applicable

Testing shall be performed by a certified independent testing laboratory. The cost of testing is the responsibility of the franchise utility or contractor.

The testing is not intended to relieve the contractor from any liability for the trench restoration. It is intended to show the Inspector and the city that the restoration meets these specifications.

(16) All joints shall be sealed using paving asphalt AR4000W.

B. A five-year moratorium on pavement excavation and trenching shall be enforced following the completion of a new street or street overlay. This requirement restricts all street trenching except in the event of an emergency or as outlined in the city's overlay policy for Right-of-Way Use Permits.

C. Asphalt patch depths will vary based upon the classification of the streets being trenched. The asphalt depths shall be shown on the Right-of-Way Use Permit and the work shall be performed as required by the attached details. The minimum paving depths for all trenching are:

(1) 8 inches for arterial streets
(2) 6 inches for local streets
(3) 4 inches for driveway approaches and walkways

D. When trenching occurs within the street shoulder, the shoulder shall be restored to its original or better condition within 30 days of first opening the trench.

E. The final patch shall be completed within 30 days of the first opening the trench. This time frame may be adjusted if delays are due to inclement weather or other adverse conditions. Delay of final patch or overlay work must be approved by the Review Engineer.

F. Any patch or overlay Downtown shall be permanent and completed as soon as possible. Hours of work on all arterials shall be limited to 8:30 AM to 2:30 PM or as determined by the Public Works Director or designee.

Appendix D

RECORD DRAWING CHECKLIST

This checklist is provided only as a guide for the Record Drawing review process. Refer to the RECORD DRAWING REQUIREMENTS Document for a detailed explanation of each step. If you have any questions in regards to this process, call the Engineering Department.

- A registered Professional Engineer or Professional Land Surveyor shall verify that installation of roads and utilities was in accordance with the approved construction plans. Any variance from the plans needs to be noted on the appropriate sheet with related design object changed to reflect the field survey.

- Prepare three Hard copies of the preliminary Record Drawings for review. Record Drawing submittals are to include all sheets or original approved construction drawings except the TESCP & City Standard Details. (See Hard Copy Format Requirements).

- Submit three folded Hard Copies of the preliminary Record Drawings for review to Public Works Engineering Division.

- Review Record Drawing submittal. If review of the preliminary Record Drawings reveals errors and/or omissions, the drawings (redlines and Digital copies) will be returned to the Engineer/Surveyor for corrections. The Engineer/Surveyor shall make all corrections in the digital copy, re-plot and resubmit the revised preliminary Record Drawings and redlines for re-review. **Upon approval of preliminary Record Drawings, the Engineer/Surveyor will be notified to proceed with the "Final Submittal".**

- The Final "Record Drawing" plan submittal shall bear the Professional Engineer/Professional Land Surveyor Stamp, Signature and Date and be reproduced on the following media:

  Digital file on CD or DVD (without P.E./P.L.S. Stamp)

  Full size MYLAR*

  THREE sets of full size PRINTS, FOLDED.

*Sepia Mylars or Xerox type copies will not be accepted as a substitute for Mylar.

CHAPTER 4

DRAINAGE AND EROSION CONTROL DESIGN STANDARDS

April 1999
Revised May 2007

Prepared by:

City of Marysville
Public Works / Community Development

CHAPTER 4 - STORM DRAINAGE DESIGN STANDARDS

CHAPTER 4

STORM DRAINAGE

4-000 PURPOSE

It is the purpose of this Chapter to implement the City of Marysville Storm Drainage Ordinance No. 2245, and to provide the Construction Standards and Specifications of Marysville Municipal Code (MMC) 14.16.030.

It is expressly the purpose of this Chapter to provide for and promote the health, safety, and welfare of the general public through sound development policies and construction procedures which respect and preserve the City's watercourses; to minimize water quality degradation and control of sedimentation of creeks, streams, ponds, lakes, and other water bodies; to preserve and enhance the suitability of waters for contact recreation and fish habitat; to preserve and enhance the aesthetic quality of the waters; to maintain and protect valuable groundwater quantities, locations, and flow patterns; to ensure the safety of City roads and rights-of-way; and to decrease drainage-related damages to public and private property.

The Standards established by this Chapter are intended to represent the **minimum design standards** for the construction of storm drainage facilities, erosion control, and stream channel improvements. Compliance with these Standards does not relieve the designer of the responsibility to apply conservative and sound professional judgment to protect the health, safety, and welfare of the general public. Special site conditions and environmental constraints may require a greater level of protection than would normally be required under these Standards. The designer must apply these Standards bearing in mind these constraints.

4-010 APPLICABILITY

A. All persons taking any of the following actions or applying for any of the following permits and/or approvals, shall, unless otherwise excepted or exempted, be required to submit for approval by the Public Works Director or Designee, a Site Plan with their application and/or request:

1. Creation or alteration of new or additional impervious surfaces.
2. New development.
3. Redevelopment.
4. Building permit.
5. Grading permit.
6. Flood control zone permit.
7. Subdivision approval.
8. Short subdivision approval.
9. Commercial, industrial, or multifamily site plan approval.
10. Planned unit development or Master Plan Development.
11. Conditional use permits.
12. Substantial development permit required under RCW 90.58 (Shoreline Management Act).
13. Right-of-Way use.
14. Logging, clearing, and other land disturbing activities.
15. Contain, or be adjacent to, a floodplain, stream, lake, wetland or closed depression, or a sensitive area as defined by the Sensitive Areas Ordinance No 1928.

Site Plan shall indicate the character of the existing site, topography, natural drainage features on or adjacent to the site, the location and dimensions of all impervious surfaces, flow arrows indicating the direction of stormwater flows onsite, and any offsite flows entering the site, the proposed method of utilizing the existing drainage system.

B. Commencement of construction, grading, or site alteration work under any of the permits or approvals listed in subsection above shall not begin until such time as final approval of the Construction Stormwater Pollution Prevention Plan (SWPPP)has been granted by the Public Works Director or Designee.

C. Guidance on preparing a Permanent Stormwater Control Plan – Water Quality System is contained in the adopted edition of the State Department of Ecology's (D.O.E.) Stormwater Management Manual forWestern Washington, which is the City's adopted Technical Manual.

D. Other agencies such as those listed below may require drainage review for a proposed project's impact on surface and storm waters. The applicant should take care to note that these other agency drainage requirements are separate from, and in addition to, City of Marysville drainage requirements. The applicant will be responsible to coordinate joint agency drainage review, including resolution of any conflicting requirements between agencies.

Agency	Permit/Approval
Snohomish County Health District	On-Site Sewage Disposal and Well Permits
Washington State Department of Transportation	Developer/Local Agency Agreement
Washington State Department of Ecology	Short Term Water Quality Modification Approval
Washington State Department of Fish and Wildlife	Hydraulic Project Approval
Washington State Department of Ecology	Dam Safety Permit
United States Army Corps of Engineers	Section 10 Permit
United States Army Corps of Engineers	Section 404 Permit
Washington State Department of Ecology	Industrial Stormwater Permit
Washington State Department of Ecology	Construction Stormwater Permit
Washington State Department of Ecology	Underground Injection Control Permit
Department of Natural Resources	Aquatic Land Use Permit
Washington State Department of Ecology	401 Water Quality Permit

Refer to Volume I of the D.O.E Stormwater Management Manual for additional permit information.

4-020 EXEMPTIONS

A. Stormwater facilities owned and maintained, or development undertaken by the Washington State Department of Transportation in state highway rights-of-way which are regulated by and meet the requirements of Chapter 173-270 WAC, the Puget Sound Highway Runoff Program, are exempted from the requirements of this Chapter.

B. Commercial agriculture, including only those activities conducted on lands defined in RCW 84.34.020(2), and production of crops or livestock for wholesale trade.

C. Forest practices regulated under Title 222 Washington Administrative Code, except for Class IV general forest practices, as defined in WAC 222-16-050, that are conversions from timber land to other uses.

D. Activities not requiring machinery for construction or excavation and that are not subject to other environmental regulation are considered exempt from the provisions of this chapter.

E. Requests for exemption shall be filed in writing with the Public Works Director or Designee, and shall adequately detail the basis for granting an exemption.

4-030 ILLICIT DISCHARGES

Illicit discharges to stormwater drainage systems are prohibited. Illicit shall mean all nonstormwater discharges to stormwater drainage systems that cause or contribute to a violation of State water quality, sediment quality, or groundwater quality standards, including but not limited to sanitary sewer connections, industrial process water, interior floor drains, car washing, and gray water systems.

4-040 STORM DRAINAGE DESIGN STANDARDS

A. Stormwater Management Design Manual.

The City adopted edition of the Washington State Department of Ecology Stormwater Management Manual for Western Washington shall be used for design of all developments. Unless otherwise provided, it shall be the developer's and property owner's responsibility to design, construct, and maintain a system which complies with these Design Standards, the Marysville Municipal Code, and the adopted (D.O.E.) Stormwater Management Manual. Low Impact Development facilities and designs may use the Low Impact Development Technical Guidance Manual for Puget Sound for additional design criteria and guidelines.

The latest versions of approved stormwater modeling software shall be used for modeling for all sites and facilities. Digital project files shall be provided to the City for review if requested.

B. Minimum Requirements for New Development and Redevelopment.

Storm Drainage Design shall be in accordance with the minimum requirements for new and redeveloped sites as established in the adopted (D.O.E) Stormwater Management Manual Chapter 2, Volume I (Minimum Requirements for New Development and Redevelopment). Total new and or redeveloped impervious surfaces shall be calculated as a total for the development, including areas onsite and within public right of way.

C. Stormwater Site Plans.

Minimum Site Plan submittals shall be in accordance with the adopted (D.O.E.) Stormwater Management Manual Chapter 3, Volume I (Preparation of Stormwater Site Plans). Offsite analysis and mitigation shall be performed per Chapter 3, Volume I of the D.O.E. manual.

D. BMP and Facility Selection Process.

Selection of Facilities and BMP for Permanent Stormwater Control Plans shall be determined in accordance with the BMP and Facility Selection process per the adopted (D.O.E.) Stormwater Management Manual Chapter 4, Volume I (BMP and Facility selection process for Permanent Stormwater Control Plans).

E. Construction Stormwater Pollution Prevention.

Construction Stormwater Pollution Prevention Plans (SWPPP) shall be developed and designed in accordance with the standard plans in this manual & the adopted (D.O.E) Stormwater Management Manual Chapter 3, Volume II on developing and implementing a Construction SWPPP. Each of the 12 elements must be included in the Construction SWPPP unless an element is determined to be not applicable to the project. The checklists in section 3.3 (D.O.E. manual) may be helpful in preparing the Construction SWPPP.

F. Basin Planning.

Adopted and implemented watershed-based plans may be used to modify any or all of the Minimum Requirements, provided that the level of protection for surface or ground water achieved by the basin plan will equal or exceed that which would be achieved by the Minimum Requirements in the absence of a basin plan. Basin plans shall evaluate and include, as necessary, retrofitting of BMP's for existing development and/or redevelopment in order to achieve watershed-wide pollutant reduction goals. Standards developed from basin plans shall not modify any of the above requirements until the basin plan is formally adopted and fully implemented by the City.

G. Water Quality Sensitive Areas.

Where the Public Works Director or Designee determines that the minimum requirements do not provide adequate protection of water quality sensitive areas, whether on site or within the drainage basin, more stringent controls shall be required to protect water quality. Stormwater treatment BMP's shall not be built within natural vegetated sensitive area buffers except for necessary conveyance systems as approve by the City Planner.

H. Conveyance System Design.

Closed drainage systems or culverts on a major stream or creek as determined by the Public Works Director or Designee, shall be designed to convey flows from a one hundred year recurrence storm event. All other closed drainage systems shall be designed to convey flows from a twenty five year recurrence storm event, unless otherwise required by the Public Works Director or Designee.

I. Temporary Gravel Construction Entrance.

The temporary construction entrance should be cleared of all vegetation, roots, and other objectionable material. Any drainage facilities required because of washing should be constructed according to specifications in the plan. If wash racks are used, they should be installed according to manufacturers recommendations. Construct stabilized construction entrance in accordance with Plan 4-040-014.

G. Oil Control Devices.

Sites shall evaluate the need for an oil control device in accordance with the adopted (D.O.E.) Stormwater Management Manual Chapter 4, Volume I (BMP and Facility Selection Process for Permanent Stormwater Control Plans).

A Coalescing Plate Separator per standard plan 4-040-017 shall be required for Oil/Lube shops, Vehicle Repair, Wash Bays, Car Washes, and any other applications deemed necessary by the City Engineer.

For Fueling Stations an Oil Stop Valve (OSV) such as the AFL/Clark OSV or approved equivalent shall be installed in a manhole or other approved structure prior to the Coalescing Plate Separator. The Oil Stop Valve uses a ballasted float set at a specific gravity between that of oil and water. When an oil spill occurs, the float loses buoyancy as the oil level increases until it finally shuts off the discharge port. The spill will then be confined within the structure and piping for removal and disposal by a hazardous waste hauler.

Tees & Elbows will not be approved as an oil control device. Sites requiring oil control devices per the manual will be required to install a coalescing plate separator or stormfilter type device for oil control and or additional controls deemed necessary by the City Engineer.

H. Debris and trash racks.

To be installed on inlet and outlet piping where trash removal is warranted. Construct and install in accordance with Standard Plans 4-040-006 and 4-040-007.

I. Discharge from Roof Drains.

Runoff from roofs and individual lots may be collected and discharged into the storm drainage system. Refer to Standard Plans 4-040-015 and 4-040-016 for details. Roof drains may also be infiltrated or dispersed in accordance with the adopted D.O.E Stormwater Management Manual, Volume III, Chapter 3 (Roof Downspout Controls). Roof drains shall not be connected to the sanitary sewer.

J. Storm Sewer Extension Required (MMC 14.16.040)

(1) The owner of any property which is not connected to the public storm drainage system shall be required to extend any storm drainage line which is within 200

feet of the property, and to connect to and use the same for all developed portions of the property, under any of the following circumstances:

(a) As a condition of final approval of a subdivision;

(b) As a condition of final approval of a short subdivision;

(c) As a condition of final approval of a binding site plan for any mobile home park, condominium, planned unit development, industrial park, or shopping center.

(d) As a condition of any building, grading, paving, or other development approval, including rezones or conditional use permits, which will have a significant adverse impact upon storm drainage; as determined by the Public Works Director or Designee.

(2) The Public Works Director or Designee may waive the requirement of subsection (1) if it is found that the capacity or condition of the existing public storm drainage system is insufficient or inadequate to serve the subject property; or if it would cause a practical difficulty to require the connection of the subject property to the public storm drainage system by reason of circumstances which are unique to the property and not generally shared by other properties in the vicinity.

K. Extension for Full Lot Frontage (MMC 14.16.050)

Whenever a property owner desires to connect to the public storm drainage system, the property owner shall be required to extend the storm drainage lines for the full frontage of the lot which is being connected. If it can be shown that no future extensions beyond said lot will occur, a waiver may be obtained from the Public Works Director or Designee and the owner need only extend the line to the nearest point of connection on the lot.

L. Fencing

Detention ponds with side slopes steeper than 3:1 or with a maximum water depth greater than 3 feet shall require a powder or vinyl coated chain link perimeter fence. Side slope averaging shall not be allowed. See Standard Plans 3-501-007 & 008. During construction of drainage facilities and prior to installation of permanent perimeter fence, contractor shall ensure temporary fencing is in place around open cut facilities while construction activities are not underway on said facility and/or at the end of each day until placement of permanent fencing is complete.

M. Signage

Detention ponds shall have a Pond Identification Sign. Signs are designed and provided by the City and paid for and installed by the Developer.

Stream Crossings shall be signed with "This Stream is in Your Care" signs provided by the City and paid for and installed by the Developer.

4-050 MANDATORY REQUIREMENTS FOR ALL STORM DRAINAGE IMPROVEMENTS

A. Commencement of construction, grading or under any of the permits or approvals shall not begin until such time as final approval of the Construction Stormwater Pollution Prevention Plan (SWPPP) has been granted by the Public Works Director or Designee.

B. All engineering plans and specifications submitted for approval shall be stamped by a professional engineer registered in the State of Washington. All site improvement plans and the cover page of copies of the Drainage Report must be signed and dated by the professional engineer approving the design.

C. All land boundary surveys used, and legal descriptions prepared, for preparing preliminary and engineering plans must be stamped by a professional land surveyor registered in the State of Washington. Topographic survey data and mapping prepared specifically for a proposed project may be performed by the professional engineer stamping the engineering plans as allowed by the Washington State Board of Registration for Professional Engineers and Land Surveyors.

D. All retention/detention criteria shall be analyzed using the hydrograph methods and routing procedures included in the (D.O.E.) Stormwater Management Manual for Western Washington, or as approved by the Public Works Director or Designee.

E. Open retention/detention facilities and infiltration facilities shall not be located in dedicated public road right-of-way areas unless specifically approved by the Public Works Director or Designee, or unless part of a Low Impact Development (LID) using approved LID facilities.

F. Emergency overflow provisions shall be installed in such a manner as to direct waters away from all structures without causing failure of those structures. The impact of a system failure should be analyzed both in terms of on-site and off-site effects. The impacts may be to adjacent properties or to elements of the public drainage system or other private systems. Retention/detention and infiltration facility design must take into account overflows which may result from:

1. Higher-intensity or longer-duration storms than the design storm.
2. Plugged orifices.
3. Inadequate storage due to sediment buildup.
4. Debris blockage.
5. Other reasons causing system failure.

G. Maximum allowable release rates from stormwater detention systems shall be based upon the pre-development runoff from the site. The allowable release rate shall be determined as specified in the (D.O.E.) Stormwater Management Manual for Western Washington. The allowable release rate may be decreased on a case-by-case basis due to constraints in the drainage system downstream.

H. All drainage system elements shall provide for adequate maintenance and accessibility at all times. No storm drainage system elements shall be located within ten feet of or underneath any structure and the system shall be designed to eliminate interference from underground utilities and from conditions which exceed design loads for any pipe or other structural elements.

I. All aspects of public health and safety must be carefully reviewed in every drainage control system plan. Protective measures are often necessary and shall be required whenever deemed appropriate by the Public Works Director or Designee. The protective measures themselves shall be designed so as not to constitute hazards or nuisances.

J. The designer should consider system reliability in terms of layout, specification of materials, methods of installation and the influence of other activities in the area both during and after construction.

K. The frequency and difficulty of future maintenance should be minimized by thorough consideration of possible failures in the system during design and what would be required to correct the problem. Design adjustments to ease maintenance should be a major consideration.

L. The designer should consider multiple use of elements of the drainage system. This multiple use may require compromise, but no adjustments to usual policies or standards will be made which would impact the system to the degree that risk of failure, impact of system failure or exposure of the general public to hazard is increased.

M. The use of the site should be evaluated to determine if hazardous materials or other pollutants are likely to be present, and if extraordinary design considerations are necessary.

N. The visual impact and other potential problems (mosquito breeding, smell, etc.) should be considered. Concerns will vary with the site environment, but aesthetics should always be of concern to the designer.

O. Offsite improvements may be required if on-site controls are insufficient to mitigate impacts due to flooding, erosion, sedimentation, pollution, or habitat degradation.

P. Roof drains shall not be connected to the sanitary sewer.

Q. Developer shall meet all applicable federal, state, and local water quality standards prior to discharge to any wetland, stream, river, or lake.

R. Surface water entering the subject property shall be received at the naturally occurring location, and surface water exiting the subject property shall be discharged at the natural location with adequate energy dissipaters to minimize downstream damage and with no diversion at any of these points.

S. Where open ditch construction is used to handle drainage within the subject property, a minimum of 15 feet will be provided between any structures and the top of the bank of the defined channel.

1. In open channel work, the water surface elevation will be indicated on the plan and profile drawings. The configuration of the finished grades constituting the banks of the open channel will also be shown on the drawings.

2. Proposed cross-section of the channel will be shown with stable side slopes. Side slopes will be no steeper than 3H:1V unless stabilized in some manner approved by the Public Works Director or Designee.

3. The 100-year water surface elevation of the design flow will be indicated on the cross-section.

T. Where a closed system is used to handle drainage within the subject property, all structures will be a minimum 10 feet from the closed system.

U. The proposed measures for controlling runoff during construction shall include a statement indicating the proposed staging of all clearing, grading and building activities.

V. Drainage facilities shall be designed and constructed in accordance with City Standards and as directed by the Public Works Director or Designee.

W. Vegetation shall be established on areas disturbed or other locations on the site to protect watercourses from erosion, siltation or temperature increases.

X. Surface water exiting from the subject property shall have pollution control and oil separator devices installed at the discharge point from the subject property when draining parking lots of paved roadway surfaces or handling contaminated storm runoff.

4-060 LOW IMPACT DEVELOPMENT

For all Low Impact Development (LID) practices please refer to MMC 19.49. The purpose of the chapter is to permit design flexibility and provide performance criteria for LID. LID is a stormwater management and land development strategy utilized in site design and construction that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to mimic natural hydrologic functions. Implementation of LID benefits streams, lakes, and Puget Sound by moderating the impacts of stormwater runoff generated by the built environment. LID techniques may supplant or augment traditional, structural stormwater management solutions. Low impact best management practices (BMPs) are described in the current Low Impact Development Technical Guidance Manual for Puget Sound, published by the Puget Sound Action Team. LID objectives are:
(1) To retain or restore native forest cover to capture, infiltrate, and evaporate all or a portion of the rainfall on a site;
(2) To confine development to the smallest possible footprint and minimize land disturbance and site grading;
(3) To preserve or restore the health and water-holding capacity of soils;
(4) To incorporate natural site features that promote stormwater infiltration;
(6) To minimize all impervious surfaces and especially those that drain to conventional piped conveyance;
(7) To manage stormwater through infiltration, bioretention, and dispersion; and
(8) To manage stormwater runoff as close to its origin as possible in small, dispersed facilities.

4-070 RESERVED

4-080 ROADWAY DRAINAGE

A. General

1. Designs: Drainage facilities shall be designed consistent with City of Marysville Drainage and Erosion Control Design Standards and the (D.O.E.) Stormwater Management Manual for Western Washington, adopted edition. Structures shall be placed and constructed as shown in these Standard Plans.

   Roadway storm detention facilities shall be provided for all improvements to public roads exceeding 5000 sq. ft. of impervious surface.

   Roadway storm drainage facilities shall be provided for any and all road construction. Roadway storm drainage facilities shall be designed and constructed in such a manner as to provide opportunity for drainage of adjacent properties.

2. Specifications: Materials, construction, and testing are specified in the WSDOT Standard Specifications. The City Engineer may amend, delete, or add Specifications or Standard Plans.

3. Conflicts: Where technical conflicts may occur between this document and other Storm Drainage Design Standards, the City Engineer shall decide which document governs.

B. Storm Sewers and Culverts

1. Minimum pipe size shall be 12-inch diameter. Eight-inch diameter may be permitted on cross street laterals to avoid utility conflict or meet shallow gradient.

2. Driveway culverts shall conform to Standard Plan 4-080-003.

3. The following pipes, specified in Section 9-05 of the WSDOT Standard Specifications are allowed: plain and reinforced concrete storm sewer pipe,

aluminized Type 2 corrugated steel, steel spiral rib and corrugated steel with asphalt coating Type 1, spiral rib and corrugated aluminum, ductile iron, polyvinyl chloride (PVC), lined corrugated polyethylene (LCPE), smooth wall polyethylene (SWPE), and high density polyethylene (HDPE) pipe. N-12 pipe is not accepted within City Right of Way.

4. LCPE pipe shall have a smooth interior wall meeting or exceeding Type III, Category 4 or 5, Grade P33 or P34, Class C per ASTM D1248, minimum cell Class ASTM D3350, 324420C. LCPE shall also meet or exceed the requirements of AASHTO M294, Type S. Pipe shall be placed in accordance with City Specifications.

5. SWPE pipe with maximum SDR of 32.5, minimum cell Class ASTM D3350, 334434C and meeting City Specifications for ductile iron pipe with restrained mechanical joints may be used for outfalls on steep slopes.

6. PVC pipe shall require the use of bedding material for flexible pipe specified in Section 9-03 the of WSDOT Standard Specifications.

7. LCPE and SWPE shall be bedded on gravel backfill for pipe bedding as specified in Section 9-03 of the WSDOT Standard Specifications. Above ground installation of SWPE does not require pipe bedding.

8. When required by the City Engineer, PVC, LCPE and SWPE shall be tested using the deflection test procedure described in Section 7-17.3(2)H of the WSDOT Standard Specifications. Pipe sections failing the mandrel test shall be replaced, except that reshaping SWPE and LCPE sections to meet requirements may be allowed if the original deformation is less than 20 percent.

9. Concrete pipe shall be rubber gasketed and metal pipe shall be gasketed and securely banded.

10. Leak testing shall be conducted if required by the City Engineer.

11. If the depth to the top of pipe exceeds eight feet, the City Engineer shall select the pipe material.

12. Bevel the projecting ends of culverts within the right-of-way per Standard Plans 4-080-004 and 4-080-005.

13. French drains shall be installed where it is desirable to intercept the ground water and transfer it off site. See Standard Plan 4-080-006.

C. Catch Basins and Junctions

1. Catch basins shall be spaced no greater than 150 feet for road grades less than one percent, 200 feet for grades between one and three percent; and 300 feet for grades three percent and greater. Where the width of the tributary road surface exceeds 35 feet, the cross slope exceeds four percent, catch basin spacing analysis is required. The analysis must show the depth of water at the edge of the traveled way does not exceed 0.12 feet or extend more than five feet into the traveled way for the 10-year storm event, using flows generated by the rational formula.

2. New catch basins shall be constructed and installed in conformance with Standard Plans 4-080-007 through 4-080-010, and 4-080-014.

3. Connections to pipe systems may be made without placing a catch basin or manhole on the mainline provided all of the following conditions are met:

   a. The mainline pipe is 48 inches or greater and at least two times the size of the connecting pipe.

   b. All connections shall be performed in accordance with the manufacturer's recommendations. Standard shop fabricated tees, wyes and saddles shall be used. Concrete pipe connections shall be constructed in accordance with Standard Plan 4-080-011.

c. There shall be a catch basin or manhole on the connecting pipe within two to ten feet of the external wall of the main line. See Standard Plan 4-080-011.

d. Offset angle of connecting pipe to mainline, horizontally and vertically, shall be less than 45 degrees.

4. Connections to an existing system shall avoid directing project runoff through downstream quality/quantity control facilities. Receiving systems may have separate conveyance facilities: one connecting to quality/quantity facilities and one by-passing them. Connection shall be to the bypass system where available.

5. Use Type 2 catch basins where the depth to the invert of the pipe exceeds five feet or the nominal diameter of the pipe is greater than 18 inches.

6. Manholes may be used in lieu of catch basins if they do not collect surface water. Manholes shall be constructed and installed in conformance with Standard Plans 4-080-012 through 4-080-014.

7. Roof and yard drains, or other concentrated flow from adjacent property shall not discharge over the surface of roadways or sidewalks.

8. Catch basins or manholes are required when joining differing types of pipes.

9. Curb inlets shall be used to collect street runoff when catch basins are not used. See Standard Plan 4-080-015.

D. Frames, Grates, and Covers

1. Unless otherwise specified, use vaned grates with standard frames in the traveled way, gutter, or shoulder. Vaned grates shall not be located within cross walks, (see Standard Plan 4-080-016). When vaned grates are impractical, use Standard Grate (see Standard Plan 4-080-017).

2. At sag vertical curves, or before intersections with a grade 3% or greater, use through curb inlet frames. Where through curb inlets cannot be used, three vaned inlets shall be used. One shall be located at the approximate low point and another on either side at 25 foot horizontal spacing, but not greater than 0.1 foot above the low point, (see Standard Plan 4-080-018).

3. New & existing catch basins that do not or no longer collect runoff shall use or be replaced with locking frame and solid covers (See Standard Plans 4-080-022, 4-080-023 and 4-080-024).

4. All storm drain covers and grates shall be locking. Manufacturer as approved by the City Engineer.

5. Where vertical concrete curbs or extruded curbs are used, catch basin frames and grates shall be installed in accordance with Standard Plan 4-080-025.

6. Slit drains may be used when approved by the City Engineer. At a minimum slit drains shall have catch basins at either end unless used as a driveway culvert. The maximum distance between catch basins along a slit drain shall be 50 feet.

E. Erosion Control. Filter fabric fences shall be constructed of material designed specifically for erosion control. The fabric shall be composed of rot-proof woven or non-woven polymeric fibers and be free of chemical treatment or coating that may reduce permeability. The fabric shall meet the following test requirements: minimum 110 lbs. grab tensile strength per ASTM D-1682, minimum 40 lbs. puncture strength per ASTM D-751 Modified, and 20-100 Equivalent Opening Size (EOS) based on U.S. standard sieves. See Standard Plan 4-040-008.

F. Trenches. See Underground Utility Installation - Chapter 3.

4-090 ADDITIONAL INFORMATION REQUIRED

The requirements of this Chapter may be modified at the discretion of the Public Works Director or Designee when more information is deemed necessary for proper review.

4-100 INSPECTION - CONSTRUCTION

A. All activities regulated by this Chapter shall be inspected by the Engineer and/or Construction Inspection Division of Community Development. Projects shall be inspected at various stages of the work to determine that adequate control is being exercised. Stages of work requiring inspection include, but are not limited to: preconstruction, installation of BMP's, land-disturbing activities, installation of utilities, landscaping, retaining walls, and completion of project. When required by the Public Works Director or Designee, special inspection and/or testing shall be performed.

B. At the time of approval of the Construction Stormwater Pollution Prevention Plan or Stormwater Site Plan for the subject property, a schedule for inspection to ensure proper review of construction and facilities will be established by the Public Works Director or Designee. The following inspections may be required as a minimum:

(1) Initial Inspection. Whenever work on the site preparation, grading, excavations, or fill is ready to be commenced, but in all cases prior thereto;
(2) Rough Grading. When all rough grading has been completed;
(3) Bury Inspection. Prior to burial of any underground drainage structure;
(4) Finish Grading. When all work including installation of all drainage structures and other protective devices has been completed;
(5) Planting. When erosion control planting shows active growth.

In some circumstances not all of the above inspections may be necessary. It shall be the discretion of the Public Works Director or Designee to waive or combine any of the above inspections as dictated by conditions.

C. A final inspection by the City will be required at the end of the 2 year maintenance bond period. The Developer will be responsible for repairing any deficiencies found as a result of the City inspection.

D. Failure to comply with the provisions of this Chapter may result in enforcement pursuant to MMC Chapter 4.

4-110 MODIFICATION OF FACILITIES DURING CONSTRUCTION

The Engineer may require that the construction of drainage facilities and associated project designs be modified or redesigned if conditions occur or are discovered which were not considered or known at the time the permit or approval was issued, such as uncovering unexpected soil and/or water conditions, weather-generated problems, or undue materials shortages. Any such modifications made during the construction of drainage control facilities shall be shown on the final approved drainage plans, a revised copy of which shall be provided to the Engineer for filing as an as-built drawing. All engineered plans, modifications & as-builts are to be on the NAVD 88 Datum.

4-120 RESERVED

4-130 VARIANCES

A. A person requesting a variance from the Standards of this Chapter shall file an application with the Public Works Director or Designee setting forth the location of the development, the owner of the property, the nature of the variance request, and the reason for the variance. An application fee established by the City Council shall accompany the application. The application fee shall be applied to all the costs and expenses incurred by the City in processing the application. In the event the filing fee is inadequate the City shall bill any additional costs to the applicant which shall be paid within 30 days and prior to the granting of any variance herein.

B. When considering an application for variance, the Public Works Director or Designee shall evaluate the following factors:

1. Sufficient capacity of downstream facilities under design conditions.

2. Maintenance of the integrity of the receiving waters.

3. Possibility of adverse effects of retention/detention.

4. Utility of regional retention/detention facilities.

5. Capability of maintenance of the system.

6. Structural integrity of abutting foundations and structures.

7. That the health, safety, and welfare of the City is not adversely affected.

8. The variance provides equivalent environmental protection and is in the overriding public interest; and that the objectives of safety, function, environmental protection, and facility maintenance, based upon sound engineering, are fully met.

9. That there are specific physical circumstances or conditions affecting the property such that the strict application of these provisions would deprive the applicant of all reasonable use of the site in question, and every effort to find creative ways to meet the intent of the minimum standards has been made.

10. That the granting of the variance will not be detrimental to the public health, welfare, and safety, not injurious to other properties in the vicinity and/or downstream, and to the quality of the receiving waters.

11. The variance is the least possible variance that could be granted to comply with the intent of the Minimum Requirements.

C. Requests for variances shall be filed in writing with the Public Works Director or Designee and shall adequately detail the basis for granting a variance.

D. The decision of the Public Works Director or Designee concerning a request for a variance shall be made in writing.

E. The decision of the Public Works Director or Designee may be appealed to the Hearing Examiner by filing written notice of appeal with the City Clerk within 10 days of service of the Public Works Director or Designee's decision.

4-140 ESTABLISHMENT OF REGIONAL FACILITIES

A. In the event that public benefits would accrue due to modification of the Storm Drainage Plan for the subject property to better implement the recommendations of the City's comprehensive drainage plans, the Public Works Director or Designee may recommend that the City should assume some responsibility for the further design, construction, operation, and maintenance of drainage facilities receiving runoff from the subject property. Such decision shall be made concurrently with review and approval of the Storm Drainage Plan.

B. In the event the City decides to assume responsibility for all or any portion of the design, construction, operation, and maintenance of the facilities, the applicant shall be required to contribute a pro rata share to the estimated cost of the facilities, provided that such share shall not exceed the estimated costs of improvements the applicant would otherwise have been required to install. The applicant may be required to supply additional information at the request of the Public Works Director or Designee to aid in determination by the City. Guidelines for implementing this section will be defined by the Public Works Director or Designee.

4-150 BONDS REQUIRED

A. The City is authorized to require all persons constructing retention/detention or other drainage treatment/abatement facilities to post surety and cash bonds.

B. Where such persons have previously posted or are required to post other such bonds on the facility itself or on other construction related to the facility, such persons may, with the permission of the Public Works Director or Designee and to the extent allowable by law, combine all such bonds into a single bond; provided, that at no time shall be amount thus bonded be less than the total amount which would have been

required in the form of separate bonds; and provided, further, that such a bond shall on its face clearly delineate those separate bonds which it is intended to replace.

1. Construction Bond. Prior to commencing construction, the person constructing the facility shall post a construction bond in an amount sufficient to cover the cost of performing the construction per the approved drainage plans. After determination by the Public Works Director or Designee that all facilities are constructed in compliance with the approved plans, the construction bond shall be released. Alternatively, an equivalent cash deposit to an escrow account administered by a local bank designated by the City may be allowed at the City's option.

2. Maintenance Bond. After satisfactory completion of the facilities and release of the construction bond by the City, the person constructing the facility shall commence a two year period of satisfactory maintenance of the facility. A cash bond to be used at the discretion of the City to correct deficiencies in said maintenance affecting public health, safety and welfare must be posted and maintained throughout the two year maintenance period. The amount of the cash bond shall be determined by the City. In addition, at the discretion of the Public Works Director or Designee, a Surety bond or cash bond to cover the cost of design defects or failures in workmanship, shall also be posted and maintained through the two year maintenance period. Alternatively, an equivalent cash deposit to an escrow account administered by a local bank may be allowed at the City's option.

3. Liability Policy. The person constructing the facility shall maintain a liability policy in an amount to be determined by the City which shall name the City of Marysville as an additional insured and which shall protect the City from any liability for any accident, negligence, failure of the facility, of any other liability whatsoever, relating to the construction or maintenance of the facility. The liability policy shall be maintained for the duration of the facility by the owner of the facility, provided that in the case of facilities assumed by the City for maintenance, the liability policy shall be terminated when the City maintenance responsibility commences.

4-160 OPERATION AND MAINTENANCE REQUIREMENTS (PRIVATE SYSTEMS)

A. Maintenance Required. All stormwater facilities shall be maintained in accordance with the adopted D.O.E Stormwater Manual, the LID Technical Guidance Manual (for LID Sites), and the provisions provided herein. Systematic, routine preventive maintenance is preferred.

B. Minimum Standards.

The following are the minimum standards for the maintenance of stormwater facilities:

1. It shall be the duty of the owner to maintain, repair and restore, at the owner's expense, all private stormwater and drainage systems located on the owner's property. Maintenance shall be performed in accordance with the minimum requirements of this Chapter and in accordance with any maintenance schedule adopted during the plan review process for constructing the facilities. The City shall be granted to the right to conduct emergency maintenance as deemed necessary by the City Engineer. The City will be reimbursed by the private owner for any emergency maintenance costs incurred.

2. No person shall cause or permit any drainage system located on the owner's property to be obstructed, filled, graded, or used for disposal of debris.

3. Minimum requirements for the maintenance of stormwater facilities shall include but not be limited to the following:

   a. Annual inspection.
   b. Removing brush, vegetation, debris and other blockage.
   c. Removing sediment, silts, sands and gravels.
   d. Removing oils, grease, tars and other pollutants.
   e. Repairing and replacing damaged facilities as required.
   f. All other activities necessary to ensure the facilities are operating as designed.

C. Disposal of Waste From Maintenance Activities. Disposal of waste from maintenance activities shall be conducted in accordance with the minimum Functional Standards for Solid Waste Handling, Chapter 173-304 WAC, guidelines by the Washington State Department of Ecology for disposal of waste materials from stormwater maintenance activities, and where appropriate, the Dangerous Waste Regulations, Chapter 173-303 WAC.

D. Maintenance of Drainage Swales, Biofiltration Swales, and Ditches.

1. Open drainage swales and ditches which are located on private property (and often located within public drainage easements) shall be cleaned, maintained, and protected in continuous compliance with the standards and specifications of the City. Responsibility for such work shall be borne by the owner of the underlying property; provided, that the City shall bear such responsibility for regional drainage ditches and facilities, as determined by the Director of the Department of Public Works, if the same are publicly owned or within public easements which are accessible to City personnel.

2. Vegetated stormwater facilities, such as grassed swales and biofilters, shall be inspected semi-annually and mowed and replanted as required by the Public Works Director or Designee. Clippings shall be removed and properly disposed of.

3. No person shall cause or permit open drainage swales and ditches to be obstructed, filled, graded, or used for disposal of debris.

4. Upon receiving express approval from the Director of the Department of Public works, a property owner may convert a drainage swale or ditch into an enclosed drainage system. Such work shall be performed in compliance with the standards and specifications of the City and shall be subject to inspection and approval by the Department of Public Works. Culverts and drainage appurtenances installed by private owners may be conveyed to the City, at no cost, by a bill of sale.

E. Authority. The Public Works Director or Designee shall have the authority to enforce this Chapter. The Public Works Director or Designee is authorized to develop an inspection program for stormwater facilities in the City of Marysville. Persons or occupants of the site shall allow any authorized representative of the Public Works Department access at all reasonable times to all parts of the premises for the purpose of inspection, sampling, and record examinations.

F. Maintenance Inspection Program. Whenever implementing the provisions of the inspection program or whenever there is cause to believe that a violation has been or is being committed, the inspector is authorized to inspect during regular working hours and at other reasonable times all stormwater drainage systems within the City to determine compliance with the provisions of these regulations.

Procedures: Prior to making any inspections, the inspector shall present identification credentials, state the reason for the inspection, and request entry.

1. If the property or any building or structure on the property is unoccupied, the inspector shall first make a reasonable effort to locate the owner or other person(s) having charge or control of the property or portions of the property and request entry.

2. If after reasonable effort, the inspector is unable to locate the owner or other person(s) having charge or control of the property, and has reason to believe the condition of the stormwater drainage system creates an imminent hazard to persons or property, the inspector may enter.

3. Unless entry is consented to by the owner or person(s) in control of the property or portion of the property or unless conditions are reasonably believed to exist which create imminent hazard, the inspector shall obtain a search warrant prior to entry, as authorized by the laws of the State of Washington.

4. The inspector may inspect the stormwater drainage system without obtaining a search warrant provided for in Subsection 3 above, provided the inspection can be conducted while remaining on public property or other property when permission to enter has been obtained.

G. Inspection Schedule. The Public Works Director or Designee shall establish a master inspection and maintenance schedule to inspect appropriate stormwater facilities that are not owned by the City. Inspections shall be annual. Critical stormwater facilities may require a more frequent inspection schedule.

H. Inspection and Maintenance Records. As existing stormwater facilities are encountered, they shall be added to the master inspection and maintenance schedule. Records of new stormwater facilities shall include the following:

1. As-built plans and locations.

2. Findings of fact from any exemption granted by the local government.

3. Operation and maintenance requirements and records of inspection, maintenance actions and frequencies.

4. Engineering reports, as appropriate.

I. Orders. The Engineer shall have the authority to issue an owner or person an order to maintain or repair a component of a stormwater facility BMP to bring it in compliance with this Chapter, and/or City regulations. The order shall include:

1. A description of the specific nature, extent and time of the violation and the damage or potential damage that reasonably might occur.

2. A notice that the violations or the potential violation cease and desist and, in appropriate cases, the specific corrective actions to be taken.

3. A reasonable time to comply, depending on the circumstances.

4-170 OPERATION AND MAINTENANCE - ASSUMPTION BY CITY

The City may assume the operation and maintenance responsibility of retention/detention or other drainage treatment/abatement facilities according to City policy after the expiration of the two-year operation and maintenance period if:

A. All of the requirements of this Chapter have been fully complied with.

B. The facilities have been inspected and approved by the Engineer after two years of operation.

C. All necessary easements entitling the City to properly operate and maintain the facility have been conveyed to the City and recorded with the Snohomish County Auditor.

D. All drainage facilities including but not limited to ponds, vaults, CB's, Control Structures, shall be cleaned to a condition acceptable to the City prior to assumption.

E. The developer has supplied to the City an accounting of capital, construction, and operation and maintenance expenses or other items, for the drainage facilities up to the end of the two-year period, for the purposes of establishing the basis for future bonding requirements for other developments.

4-180 ENFORCEMENT AND PENALTIES

A. General. Enforcement action shall be in accordance with Chapters 4, 14.15, 14.16, 14.17, and 19.28 of the Marysville Municipal Code.

B. Notice of Violation. Whenever the Public Works Director or Designee has found or determined that a violation is occurring, the Compliance Officer is authorized to issue a notice of violation directed to the property owner or occupant.

GENERAL NOTES

1. All work and materials shall be in accordance with current City of Marysville Standards and Specifications; the current edition of the Washington State Department of Transportation Standard Specifications for Road, Bridge, and Municipal Construction; and the adopted edition of the Washington State Department of Ecology Stormwater Management Manual for Western Washington.

2. All work within the plat and City right-of-way shall be subject to the inspection of the City engineer or designated representative.

3. Prior to any site construction including clearing/logging or grading, the site clearing limits shall be located and field identified by the project surveyor (or project engineer) as required by these plans. The project surveyor's name and phone number is _____.

4. The developer, contractor and project engineer is responsible for water quality as determined by the monitoring program established by the project engineer. The project engineer's name and phone number is _____.

5. Prior to any site work, the contractor shall contact the Department of Public Works at 360-363-8100 to schedule a preconstruction conference. Engineered as-built drawings in accordance with the current adopted International Building Code shall be required prior to site approval.

6. The contractor shall be responsible for obtaining all permits for utility, road, and right-of-way construction. The contractor for this project is _____. Contact person is _____. Phone _____, Mobile phone _____, emergency phone _____.

7. The Construction Stormwater Pollution Prevention (SWPP) facilities shall be constructed in accordance with the approved SWPP plans prior to any grading or extensive land clearing. These facilities must be satisfactorily maintained until construction and landscaping is completed and the potential for on-site erosion has passed. Sediment laden waters shall not enter the natural drainage system.

8. Non compliance with the requirements for; erosion controls, water quality and clearing limits may result in revocation of; project permits, plan approval and bond foreclosures.

9. Trench backfill of new utilities and storm drainage facilities shall be compacted to 95% maximum density (modified proctor) under roadways and 90% maximum density (modified proctor) off roadways. Compaction shall be performed in accordance with Sections 7-08.3(3) and 2-03.3(14)C - Method B as defined in the current edition of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction.

10. The owner and contractor shall be responsible for locating and protecting all existing utilities prior to beginning construction. Location of utilities shown on construction plans are based on best records available and are subject to variation. For assistance in utility location, call 1-800-424-5555.

11. Prior to construction the owner and/or contractor shall notify the project engineer and the City engineer when conflicts exist between the plans and field conditions. Conflicts shall be resolved (including plan and profile revisions) and resubmitted for approval prior to proceeding with construction.

12. The contractor shall keep two sets of plans on site at all times for recording as-built information; one set shall be submitted to the project engineer, and one set shall be submitted to the City engineer at completion of construction and prior to final acceptance of work.

13. A grading permit issued pursuant to the current adopted International Building Code, and approval of the temporary erosion and sedimentation control plan shall be obtained from the Community Development Department prior to any on-site grading work not expressly exempt by the current adopted International Building Code.

14. Prior to commencement of framing, final drainage inspection and approval of the roof leader and positive footing systems shall be completed by the Building Department. Call 360-363-8100 to schedule the inspection.

STORM DRAINAGE NOTES

1. Prior to any site work including drainage, the contractor shall contact the City of Marysville Construction Inspection Division of Community Development at 360-363-8100 to schedule a pre-construction conference.

2. All pipe shall be placed on stable earth. If in the opinion of the City inspector, the existing trench foundation is unsatisfactory, then it shall be excavated below grade and backfilled with gravel bedding to support the pipe.

3. Backfill shall be placed equally on both sides of the pipe or pipe-arch in 6" average depth loose lifts. Maximum lift depth shall not exceed 9". Each lift shall be thoroughly compacted. Compacted lifts must extend at least one pipe diameter on each side of the pipe or to the side of the trench. Backfill over the pipe shall be performed in accordance with Sections 7-04.3(3) and 2-03.2(14)C - Method B and C of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction.

4. All grates located in the gutter flow line (inlet and catch basin) shall be depressed 0.1 feet below pavement level.

5. All catch basins to be Type I unless otherwise approved by the City engineer or designated representative. The use and installation of inlets is not encouraged.

6. The contractor shall be responsible for adjusting all manhole, inlet and catch basin frames and grates to grade just prior to curb installation and/or paving.

7. All catch basins with a depth of 5 feet or greater to the flow line shall be Type II catch basins.

8. Vaned grates are required on all storm structures where the roadway profile grade is greater than 3%. All catch basins and manholes shall have locking lids. Rolled grates are not approved for use outside of the City right-of-way or for use with Type II manholes.

9. Polypropylene safety steps and ladder steps shall be provided in all manholes and shall be positioned correctly with the bolt areas on the rim.

10. Catch basin frames and grates shall be Olympic Foundry Model SM60, SM52, or SM44, locking type or equivalent. Model SM52 shall be referred to as a "Through Curb Inlet" on the plans, Model SM44 shall be referred to as a "Rolled Grate Inlet" on the plans.

11. Detention ponds with side slopes steeper than 3:1 or with a maximum water depth greater than 3 feet shall require a powder or vinyl coated chain link perimeter fence per standard plans 3-501-007 & 008. Side slope averaging shall not be allowed. All inlet and outfall pipes shall have a trash rack installed and a mortared riprap headwall. Refer to storm drainage note 18.

12. Prior to sidewalk construction; lot drainage systems, stub-outs and any behind sidewalk drains must be installed as required. Pipe shall be PVC 3034, or SDR-35. Stub-outs shall be marked with a 2" x 4" with 3 feet visible above grade and marked "storm". Locations of these installations shall be shown on the as-built construction plans submitted to the City.

13. Storm water retention/detention facilities, storm drainage pipe and catch basins shall be flushed and cleaned by the developer prior to; City of Marysville final acceptance of the project and; upon commencement and completion of the 2 year warranty period for the storm drainage system.

14. Unless otherwise noted, all storm sewer pipe shall be; (CP) non-reinforced concrete, ASTM C-14; (RCP) reinforced concrete for concrete pipe diameters 24" or greater, ASTM C-76; or (CMP) corrugated metal. CMP to be; galvanized steel with Treatment I asphalt coating or better; or corrugated aluminum; or AASHTO M274-70 aluminized steel. All pipes shall be installed with rubber gaskets as per manufacturers recommendations.

    Coverage Requirements for 12" diameter pipe:

    Backfill over pipe less than 12" requires RCP Class IV.

    Backfill over pipe less than 24" requires RCP minimum.

    Backfill over pipe greater than 24" requires 16 gage CMP minimum.

15. Corrugated Polyethylene Pipe (CPP):

    A. All pipe shall be smooth interior. CPP shall be double-walled. All pipe shall meet AASHTO and ASTM specifications.

B. Upon request by the City inspector, all pipe runs shall pass the low pressure air test requirements of Section 7-04.3(1) E & F of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction. Pipe runs shall be tested with pipe loaded and compacted to finish grade.

C. Upon request by the City inspector, pipe shall be subject to mandrel testing (mandrel size = 90% of nominal pipe diameter).

D. Pipe shall be stored on site in shipping bunks on a flat level surface. This requirement will be strictly enforced; failure to comply may result in rejection of the pipe and/or future restriction on use of material.

E. Minimum depth of cover shall be 2 feet.

F. Couplings shall be integral bell and spigot or double bell separate couplings. Split couplings will not be allowed.

G. Backfill shall comply with Section 7-08.3(3) of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction modified as follows:

The second paragraph of Section 7-08.3(3) is deleted and replaced with the following:

The material used for backfilling around and to a point 1 foot above the top of the pipe shall be clean earth or sand, free from clay. Any gravel or stones included in the backfill shall pass through a 1 inch sieve.

16. All non-perforated metal pipe shall have neoprene gaskets at the joints. O-ring gaskets may be used for type-F coupling band.

17. Culvert ends shall be beveled to match side slopes. Field cutting of culvert ends is permitted when approved by the City engineer or designated representative.

18. All field cut culvert pipe shall be treated as required in the Standard Specifications or General Special Provisions.

SITE GRADING AND SWPPP NOTES

1. Noncompliance with the erosion control requirements, water quality requirements and clearing limits violations may result in revocation of project permits and plan approval and bond foreclosures.

2. Prior to any site construction, including clearing, logging or grading, the site clearing limits shall be located and field identified by the project surveyor (or project engineer) as required by these plans. The project surveyor's name and phone number is _____.

3. Developer (or project engineer) is responsible for water quality as determined by the monitoring program established by the project engineer. The project engineer's name and phone number is _____.

4. The Construction Stormwater Pollution Prevention facilities shall be constructed in accordance with the approved SWPPP prior to any grading or extensive land clearing. An inspection by the City of these facilities shall be arranged for by the contractor prior to any grading. These facilities must be satisfactorily maintained until construction and landscaping is completed and the potential for on-site erosion has passed.

5. All site work must be performed in accordance with the current City adopted International Building Code.

6. All earth work shall be performed in accordance with City Standards. Preconstruction soils investigation may be required to evaluate soils stability.

7. If cut and fill slopes exceed a maximum of two feet horizontal to one foot vertical, a rock or concrete retaining wall may be required. All rock retaining walls greater than four (4) feet in height are to be designed and certified by a professional engineer experienced in soil mechanics.

8. Stockpiles are to be located in safe areas and adequately protected by temporary seeding and mulching. Hydroseeding is preferred.

9. All structural fills shall be compacted to a minimum of 95% maximum density in the upper 4 feet & 90% maximum density below 4 feet as determined by modified proctor.

10. Prior to any site work pertaining to drainage, the contractor shall contact the Construction Inspection Division of Community Development s at 360-363-8100 to schedule a preconstruction conference.

11. Construction Stormwater Pollution Prevention measures shall be installed prior to any site work. (See attached detailed drainage plan).

12. The surface of all slopes shall be compacted. This may be accomplished by over-building the slopes, then cutting back to final grades; or by compacting each lift as the slope is being constructed. All slopes shall be compacted by the end of each working day.

13. Upon completion of work, final reports must be submitted to the City in conformance with the current City adopted International Building Code..

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

1. The temporary construction entrance should be cleared of all vegetation, roots, and other objectionable material. Any drainage facilities required because of washing should be constructed according to specifications in the plan. If wash racks are used, they should be installed according to manufactures specifications.

2. Gravel shall be crushed ballast rock, 8" to 12" in depth and installed to the specified dimensions at the entrance.

3. The gravel ballast rock shall be 4" to 8" in diameter and placed across the full width of the vehicular ingress and egress area. The length of entrance shall be a minimum of 100 feet.

4. If conditions on the site are such that most of the mud is not removed from vehicle tires by contact with the gravel, then the tires must be washed before vehicles enter onto a public road. Wash water must be carried away from entrance to a settling area to remove sediment. A wash rack may also be used to make washing more convenient and effective.

5. The entrance shall be maintained in a condition which will prevent tracking or flow of mud onto public rights-of-way. This may require periodic top dressing with 2" stone, as conditions demand, and repair and/or clean out any structures used to trap sediment. All materials spilled, dropped, washed or tracked from vehicles onto roadway or into storm drains must be removed immediately.

HYDROSEEDING GENERAL NOTES

1. Construction Acceptance: Will be subject to a well established ground cover that fulfills the requirements of the approved construction plans and City of Marysville Standards.

2. All disturbed areas such as retention facilities, roadway backslopes, etc., shall be seeded with a perennial ground cover grass to minimize erosion. Grass seeding will be done using an approved hydroseeder or as otherwise approved by the City of Marysville.

3. Preparation of Surface: All areas to be seeded shall be cultivated to the satisfaction of the City Inspector. This may be accomplished by disking, raking, harrowing, or other acceptable means.

4. Immediately following finish grading permanent vegetation shall be applied consistent with the design and maintenance standards for Temporary and Permanent Seeding in the City adopted Department of Ecology Stormwater Management Manual for Western Washington.

5. All hydroseeding firms shall have a printout of the application rate for each job readily available for inspection by the Construction Inspection Division of Community Development.

6. The City of Marysville Construction Inspection Division of Community Development shall be notified of potential hydroseeding prior to the commencement of same to ensure compliance of these specifications.

MAINTENANCE OF SILTATION BARRIERS

1. Siltation barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales. Necessary repairs to barriers or replacement of bales shall be accomplished promptly. Sediment deposits should be removed after each rainfall. Sediment deposits must be removed when sediment level reaches approximately one-half the siltation barrier height. Any sediment deposits remaining in place after the straw bale barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

STAND PIPE AND SEDIMENT POND MAINTENANCE

1. The embankment of the basin should be checked regularly to insure that it is structurally sound and has not been damaged by erosion or construction equipment. The emergency spillway should be checked regularly to insure that the lining is well established and erosion resistant. The siltation basin should be checked for sediment cleanout after each rainfall which produces runoff. When the sediment reaches the cleanout level, it shall be removed and properly disposed.

BIOFILTER SWALE PLANTING NOTES

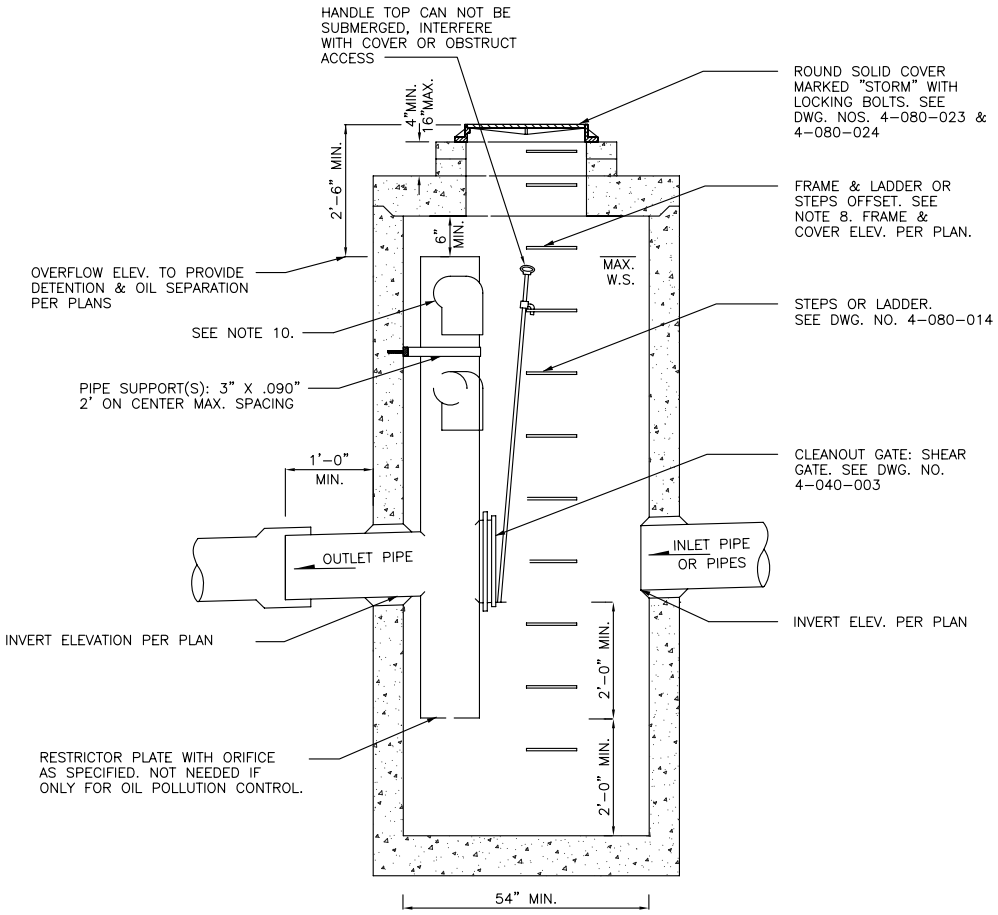
1. Final engineering approval is contingent on swale inspection by the City of Marysville Construction Inspection Division of Community Development.

2. Inspection must be requested by calling the City of Marysville Construction Inspection Division of Community Development at 360-363-8100 at least 24 hours prior to inspection date.

3. Erosion control seed mix or shingle-weave sod, as determined by the City Engineer or designated representative, shall be placed above the design water surface for the 6-month, 24-hour storm event. A minimum topsoil depth of 4" shall be placed within the swale. The topsoil surface shall be at design grade for the swale. An erosion control blanket shall cover the topsoil to prevent erosion of topsoil and seed mix until a well defined ground cover is established. The wetted surface area as defined by the 6-month, 24-hour storm event shall be planted with wet tolerant plant species.

4. Recommended Seed Mix for Bioswales:

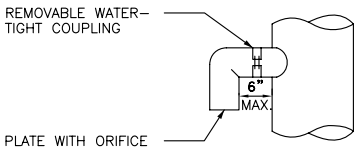
	% Weight	% Purity	% Germination
Tall or meadow fescue *Festuca arundinacea* or *Festuca elatior*	75-80	98	90
Seaside/Creeping bentgrass *Agrostis palustris*	10-15	92	85
Redtop bentgrass *Agrostis alba* or *Agrostis gigantea*	5-10	90	80



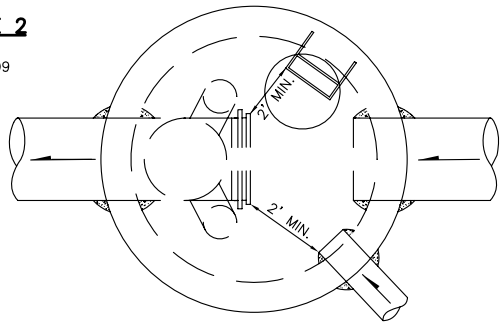
CATCH BASIN TYPE 2
DIAM. AS REQUIRED
SEE DWG. NO. 4-080-009

NOTES:

1. PIPE SIZES AND SLOPES: PER PLANS.
2. OUTLET CAPACITY: NOT LESS THAN COMBINED INLETS.
3. EXCEPT AS SHOWN OR NOTED, UNITS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS FOR CATCH BASIN TYPE 2, 54" MIN. DIAM.
4. PIPE SUPPORTS AND RESTRICTOR/SEPARATOR SHALL BE OF SAME MATERIAL, AND BE ANCHORED AT 3' MAX. SPACING BY 5/8" DIAM. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED 2" IN WALL.
5. THE RESTRICTOR/SEPARATOR SHALL BE FABRICTED FROM .060" ALUMINUM, OR .064" ALUMINIZED STEEL, OR .064" GALVANIZED STEEL PIPE; IN ACCORDANCE WITH AASHTO M 36, M 196, M 197 AND M 274. GALVANIZED STEEL SHALL HAVE TREATMENT 1.
6. OUTLET SHALL BE CONNECTED TO CULVERT OR STORM DRAIN WITH A STANDARD COUPLING BAND FOR CORRUGATED METAL PIPE, OR GROUTED INTO THE BELL OF CONCRETE PIPE.
7. THE VERTICAL RISER STEM OF THE RESTICTOR/SEPARATOR SHALL BE THE SAME DIAM. AS THE HORIZONTAL OUTLET PIPE, WITH AN 8" MIN. DIAM.
8. FRAME AND LADDER OR STEPS OFFSET SO THAT:
   A. CLEANOUT GATE IS VISIBLE FROM TOP.
   B. CLIMB DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
   C. FRAME IS CLEAR OF CURB.
9. IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE: OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4".
10. MULTI-ORIFICE ELBOWS MAY BE LOCATED AS SHOWN OR ALL ON ONE SIDE OF RISER TO ASSURE LADDER CLEARANCE.



ELBOW DETAIL



PLAN

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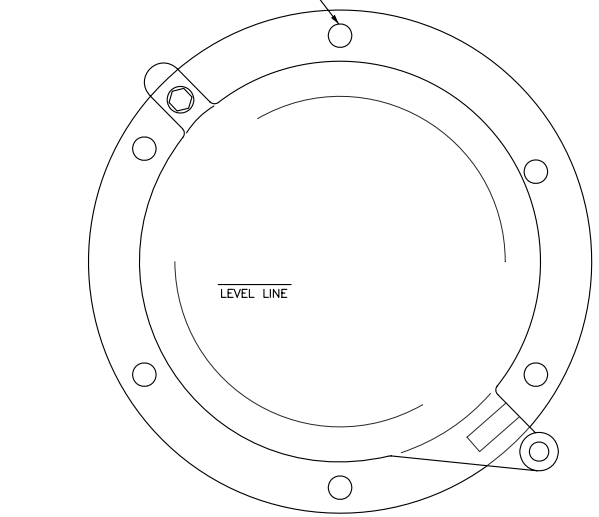
MARYSVILLE CITY ENGINEER DATE

FLOW RESTRICTOR/OIL POLLUTION DEBRIS CONTROL DEVICE, TEE TYPE (FROP-T) INSTALLATION

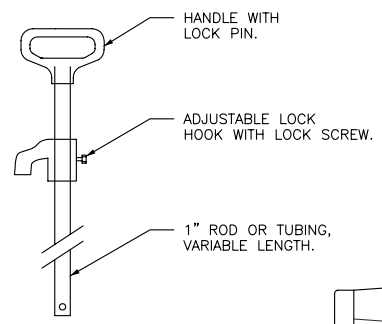
CITY OF Marysville WASHINGTON

STANDARD PLAN 4-040-002

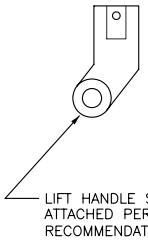
LAST REVISED 01/02/07

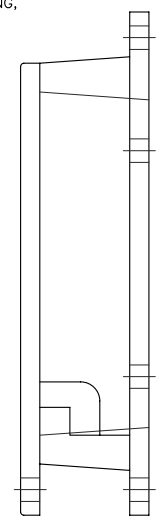


FRONT

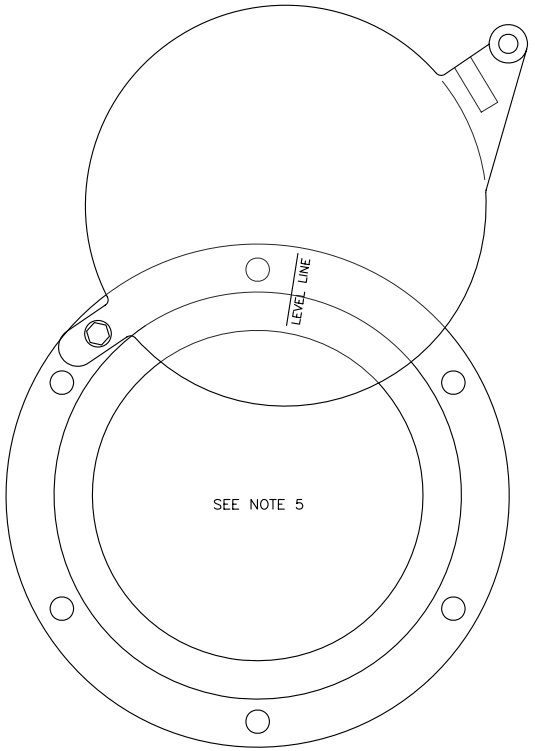


LIFT HANDLE





SIDE



MAXIMUM OPENING OF GATE

NOTES:

1. SHEAR GATE SHALL BE ALUMINUM ALLOY PER ASTM B-26-ZG-32a OR CAST IRON ASTM A48 CLASS 30B AS REQUIRED.
2. GATE SHALL BE 8" DIAM. UNLESS OTHERWISE SPECIFIED.
3. GATE SHALL BE JOINED TO TEE SECTION BY BOLTING (THROUGH FLANGE), WELDING, OR OTHER SECURE MEANS.
4. LIFT ROD: AS SPECIFIED BY MFR. WITH HANDLE EXTENDING TO WITHIN ONE FOOT OF COVER AND ADJUSTABLE HOOK LOCK FASTENED TO FRAME OR UPPER HANDHOLD.
5. GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED HINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.
6. NEOPRENE RUBBER GASKET REQUIRED BETWEEN RISER MOUNTING FLANGE AND GATE FLANGE.
7. MATING SURFACES OF LID AND BODY TO BE MACHINED FOR PROPER FIT.
8. FLANGE MOUNTING BOLTS SHALL BE 3/8" DIAM. STAINLESS STEEL.
9. ALTERNATE CLEANOUT/SHEAR GATES TO THE DESIGN SHOWN ARE ACCEPTABLE, PROVIDED THEY MEET THE MATERIAL SPECIFICATIONS ABOVE AND HAVE A SIX BOLT, 10 3/8" BOLT CIRCLE FOR BOLTING TO THE FLANGE CONNECTION.

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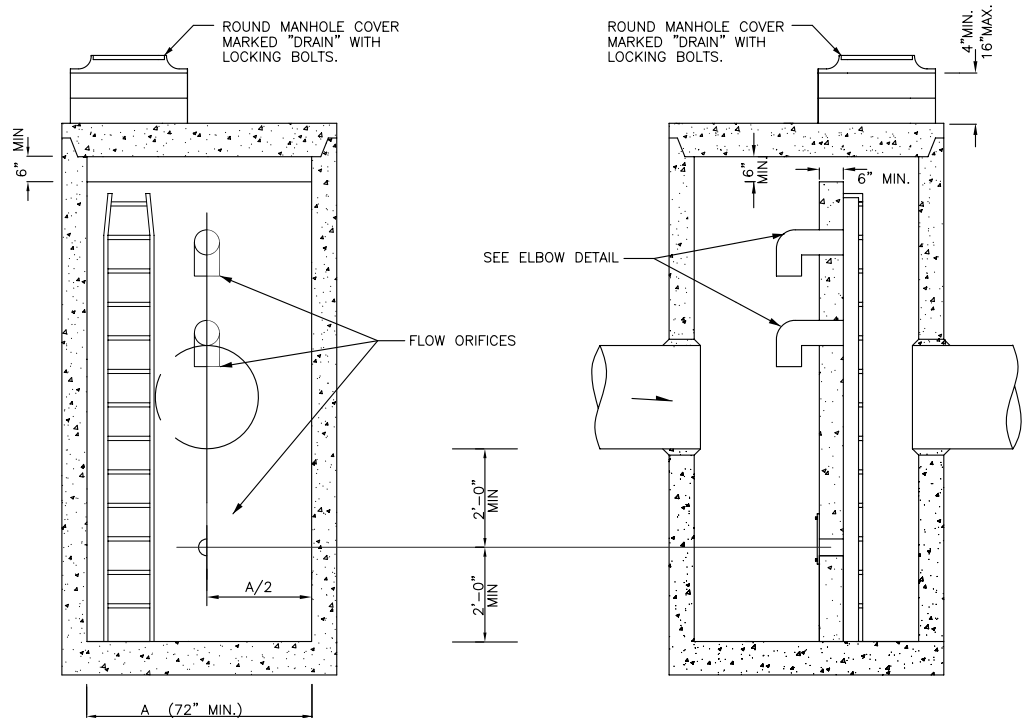
FROP-T SHEAR GATE DETAIL

STANDARD PLAN 4-040-003

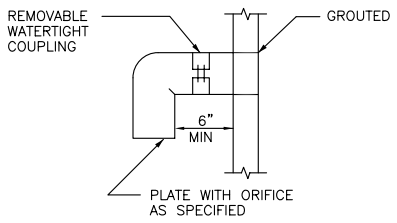
LAST REVISED 07/14/06



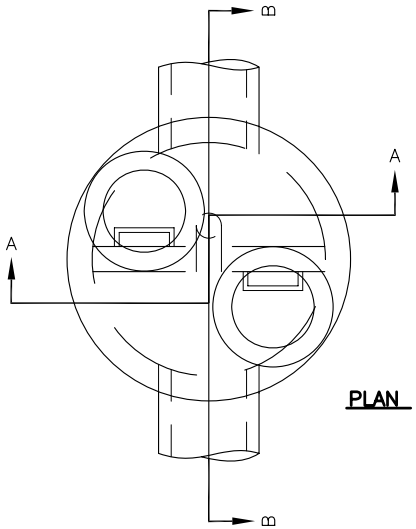
SECTION A–A

SECTION B–B

ELEVATION



ELBOW DETAIL



PLAN

NOTES:

1. PIPE SIZE, SLOPES AND ALL ELEVATIONS: PER PLANS.
2. OUTLET CAPACITY: NOT LESS THAN COMBINED INLETS.
3. CATCH BASIN: TYPE 2, TO BE CONSTRUCTED IN ACCORDANCE WITH DWG. NO. 4–080–009 AND AASHTO M199 UNLESS OTHERWISE SPECIFIED
4. COVERS: ROUND, SOLID MARKED "DRAIN," WITH LOCKING BOLTS
5. ORIFICES: SIZED AND LOCATED AS REQUIRED, WITH LOWEST ORIFICE MINIMUM 2' FROM BASE
6. BAFFLE WALL SHALL HAVE #4 BAR AT 12" SPACING EACH WAY.
7. PRECAST BAFFLE WALL SHALL BE KEYED AND GROUTED IN PLACE.
8. BOTTOM ORIFICE PLATE TO BE 1/4" MIN. GALVANIZED STEEL AND ATTACHED WITH 1/2" STAINLESS STEEL BOLTS. OMIT ORIFICE PLATE IF ONLY FOR OIL SEPARATION.
9. UPPER FLOW ORIFICE SHALL BE ALUMINUM, ALUMINIZED STEEL OR GALVANIZED STEEL. SEE DWG. NO. 4–040–002. GALVANIZED STEEL SHALL HAVE TREATMENT 1.

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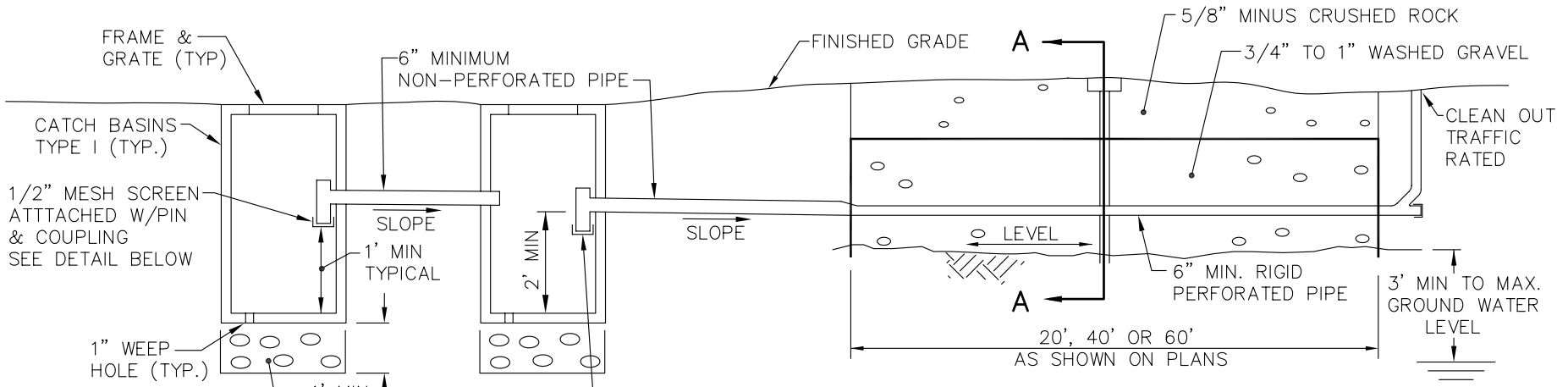
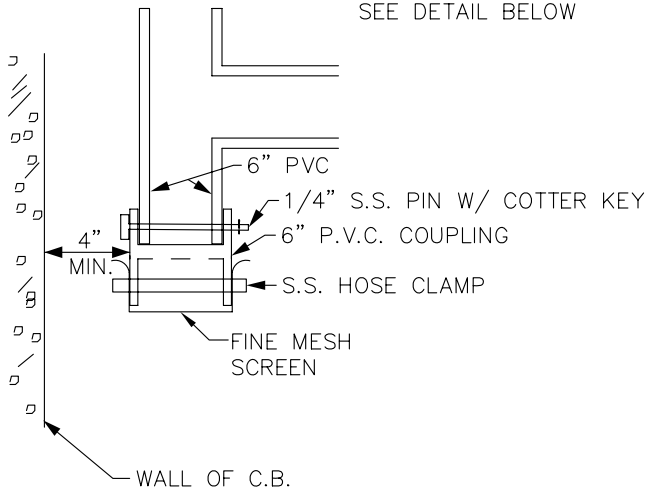
FLOW RESTRICTOR/DEBRIS POLLUTION CONTROL DEVICE BAFFLE TYPE (FROP–B)

STANDARD PLAN 4–040–004

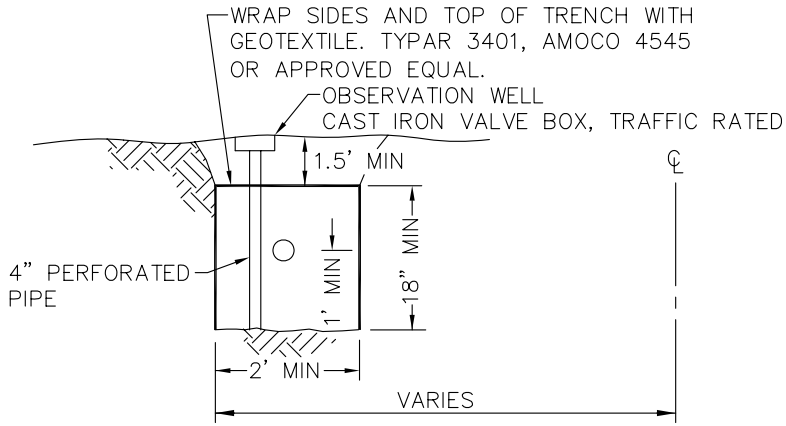
LAST REVISED 07/14/06



PROFILE
N.T.S.



SCREEN CONNECTION DETAIL
N.T.S.



SECTION A-A
N.T.S.

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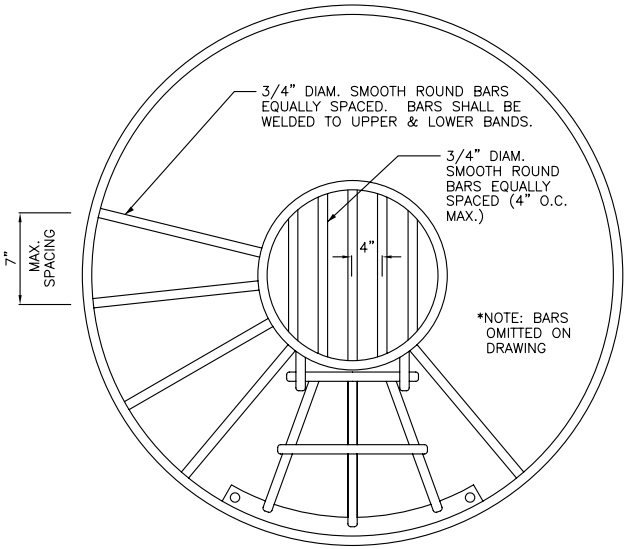
INFILTRATION SYSTEM DETAIL

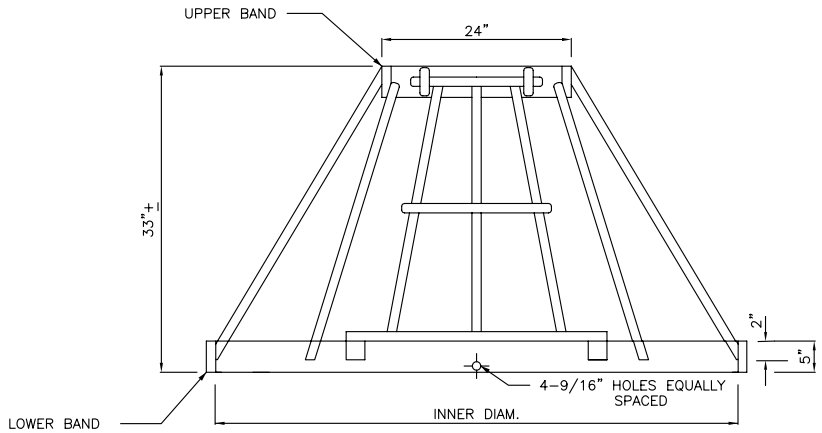
CITY OF Marysville WASHINGTON

STANDARD PLAN 4-040-005

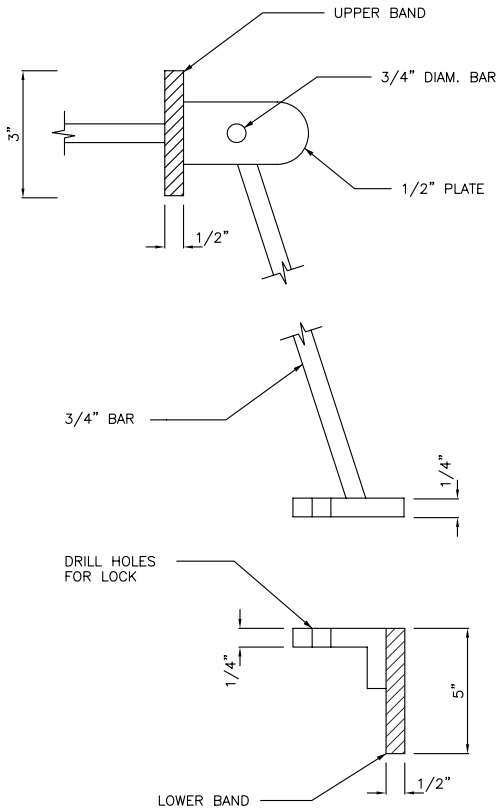
LAST REVISED 07/14/06



PLAN



ELEVATION



ENTRY GATE DETAIL

NOTES:

1. ALL STEEL IN PLATES, BARS AND BANDS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36.
2. DEBRIS CAGE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 (AASHTO M111).

CB	INNER DIAM.
48"	58"
54"	65"
60"	72"
72"	86"
96"	114"

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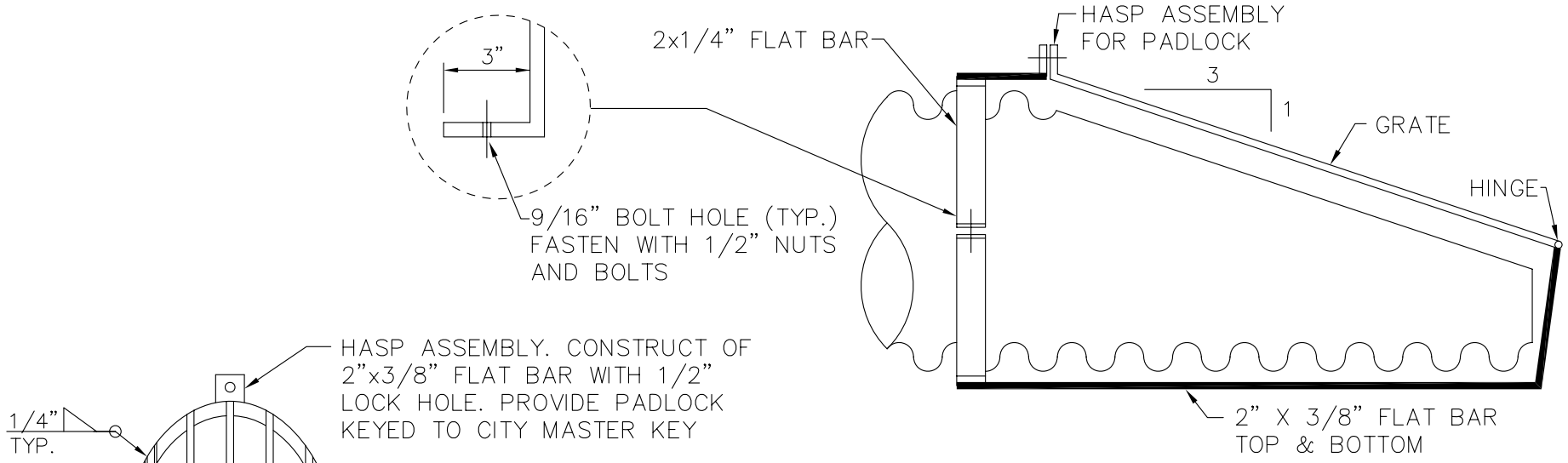
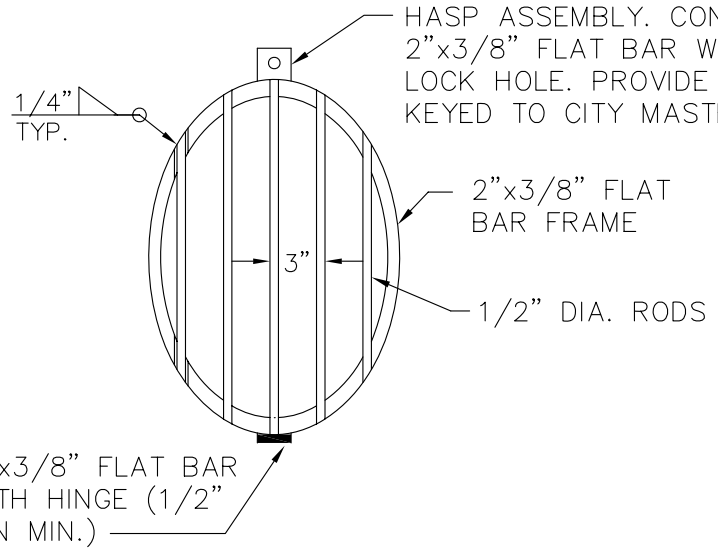
CITY OF Marysville WASHINGTON

DEBRIS CAGE

STANDARD PLAN 4-040-006



LONGITUDINAL PROFILE



END VIEW

NOTES:

INSTALL AT INLETS AND OUTLETS OF ALL STORM PIPE 18 INCHES AND GREATER AND AT INLETS OF ALL STORM PIPE SMALLER THAN 18 INCHES.

CONTRACTOR TO PROVIDE SHOP DRAWINGS PRIOR TO FABRICATION. SHOP FABRICATE.

CONSTRUCTION SHALL BE ALL STEEL. HOT DIP GALVANIZE AFTER FABRICATION.

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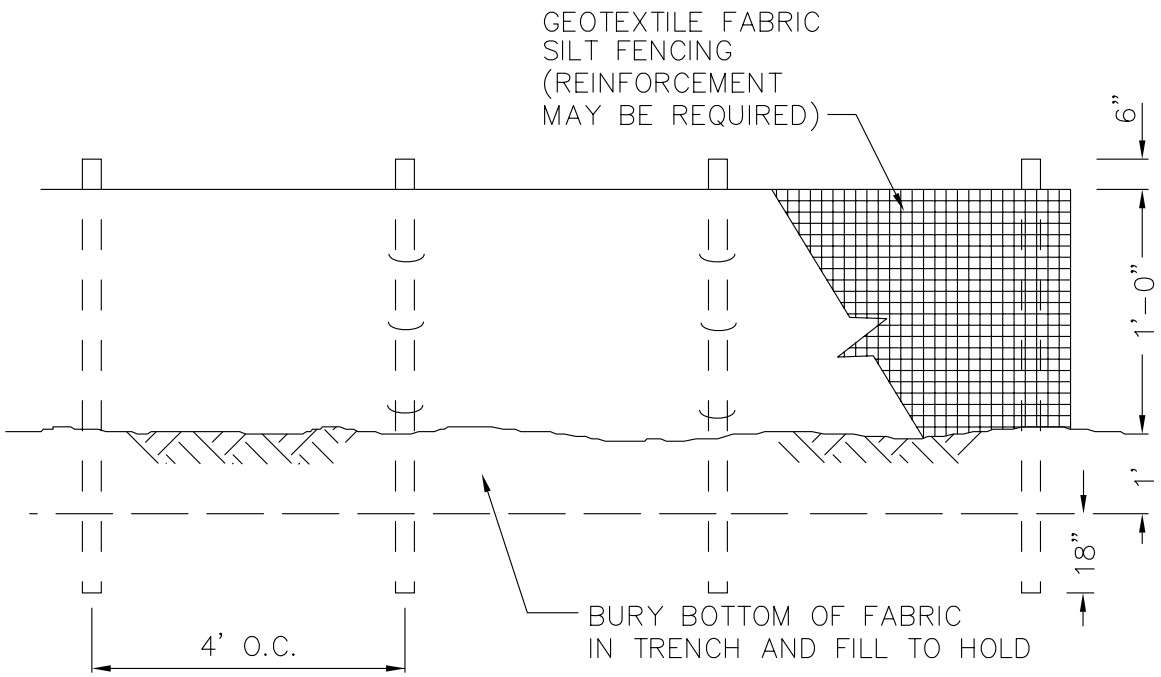
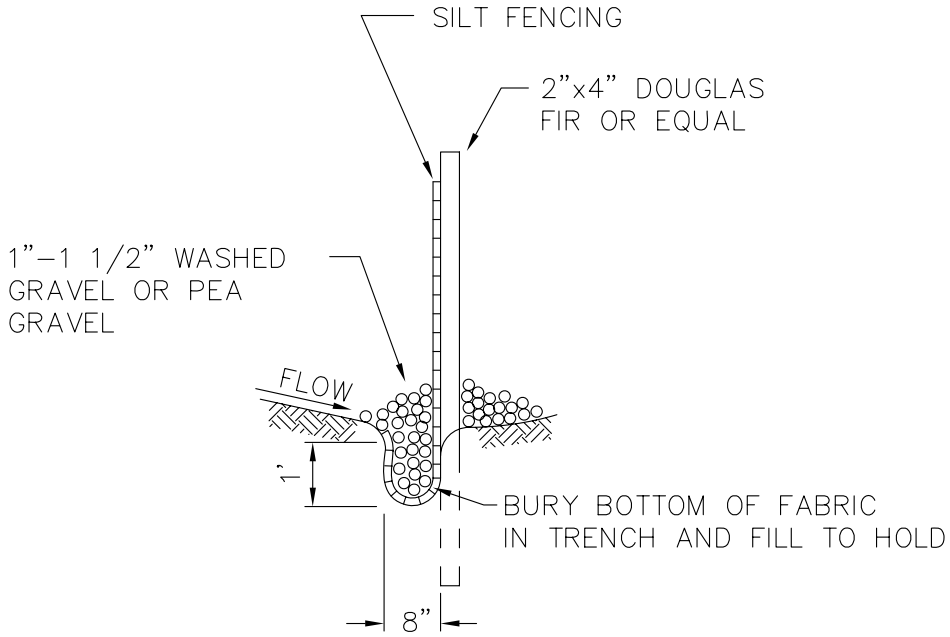
TRASH RACK

STANDARD PLAN 4-040-007

LAST REVISED 07/14/06





NOTE:

1. SEE SECTION 4-080E FOR FABRIC SPECIFICATIONS

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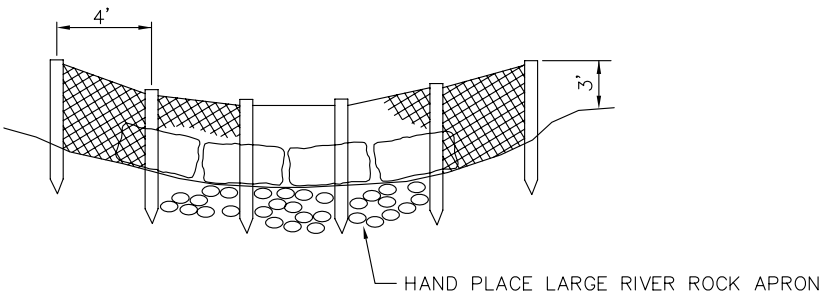
SILT FENCE DETAIL

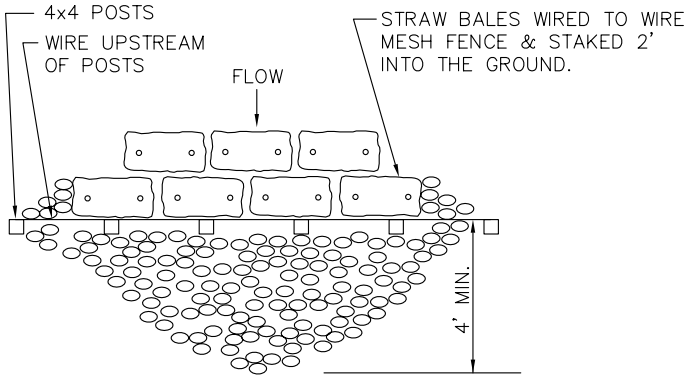
CITY OF Marysville WASHINGTON

LAST REVISED 01/02/07

STANDARD PLAN 4-040-008



SECTION



PLAN

STRAW BALE CHECKS

N.T.S.

NOTE:

STRAW/HAY BALE CHECKS WILL BE TEMPORARILY INSTALLED ACROSS EXISTING DRAINAGEWAYS TO COLLECT AND STORE RUNOFF AND SEDIMENT PRIOR TO DISCHARGE. STRAW/HAY BALE CHECKS WILL BE INSTALLED IN DRAINAGEWAYS, BEFORE ANY UPSLOPE GRADING, OR CONSTRUCTION ACTIVITIES, COMMENCE. STRAW/HAY BALE CHECKS WILL BE CONSTRUCTED TO THE FOLLOWING GENERAL SPECIFICATIONS:

1. STRAW/HAY BALES SHALL BE LAID PERPENDICULAR TO FLOW, TIGHTLY ABUTTED, STACKED SECURELY IN PLACE WITH AT LEAST TWO STAKES PER BALE, AND KEYED INTO THE GROUND 6 TO 8 INCHES.

2. STRAW/HAY BALE CHECKS SHALL BE CONSTRUCTED TO A SUFFICIENT WIDTH TO RETARD RUNOFF AND TRAP SEDIMENT.

3. STRAW/HAY BALE CHECKS SHALL BE LOCATED AT 100 FOOT INTERVALS TO PROVIDE MAXIMUM CAPACITY FOR TRAPPING SEDIMENT, AS WELL AS GREATEST EASE OF CLEANOUT AND DISPOSAL OF TRAPPED SEDIMENTS.

4. STRAW BALE CHECKS SHALL BE MAINTAINED IN SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL.

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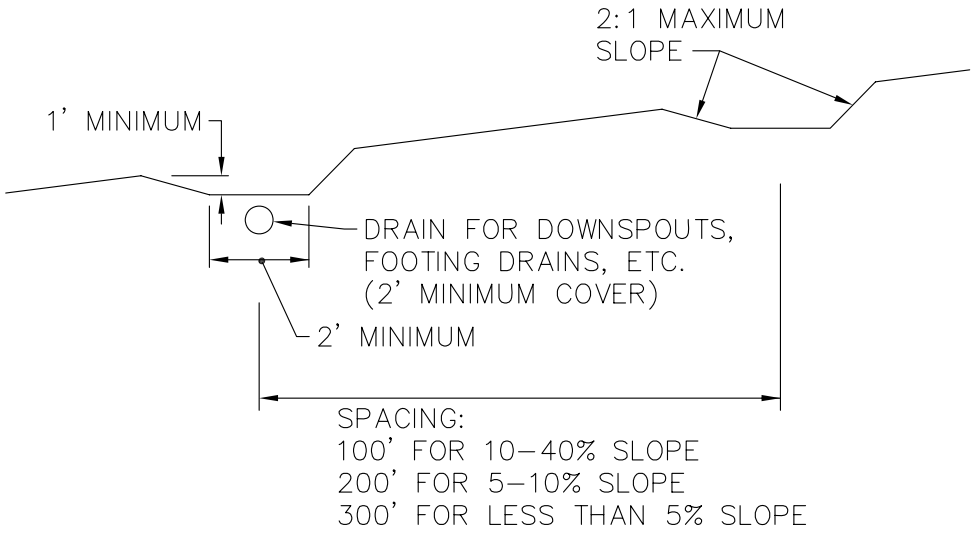
CITY OF Marysville WASHINGTON

STRAW BALE CHECKS DETAIL

LAST REVISED 07/14/06

STANDARD PLAN 4-040-009



MAINTENANCE STANDARDS

1. DAMAGE RESULTING FROM RUNOFF OR CONSTRUCTION ACTIVITY SHALL BE REPAIRED IMMEDIATELY

2. IF THE FACILITIES DO NOT REGULARLY RETAIN STORM RUNOFF, THE CAPACITY AND/OR FREQUENCY OF THE DIKES/ SWALES SHALL BE INCREASED

3. MAINTENANCE TO BE PERFORMED BY PROPERTY OWNER

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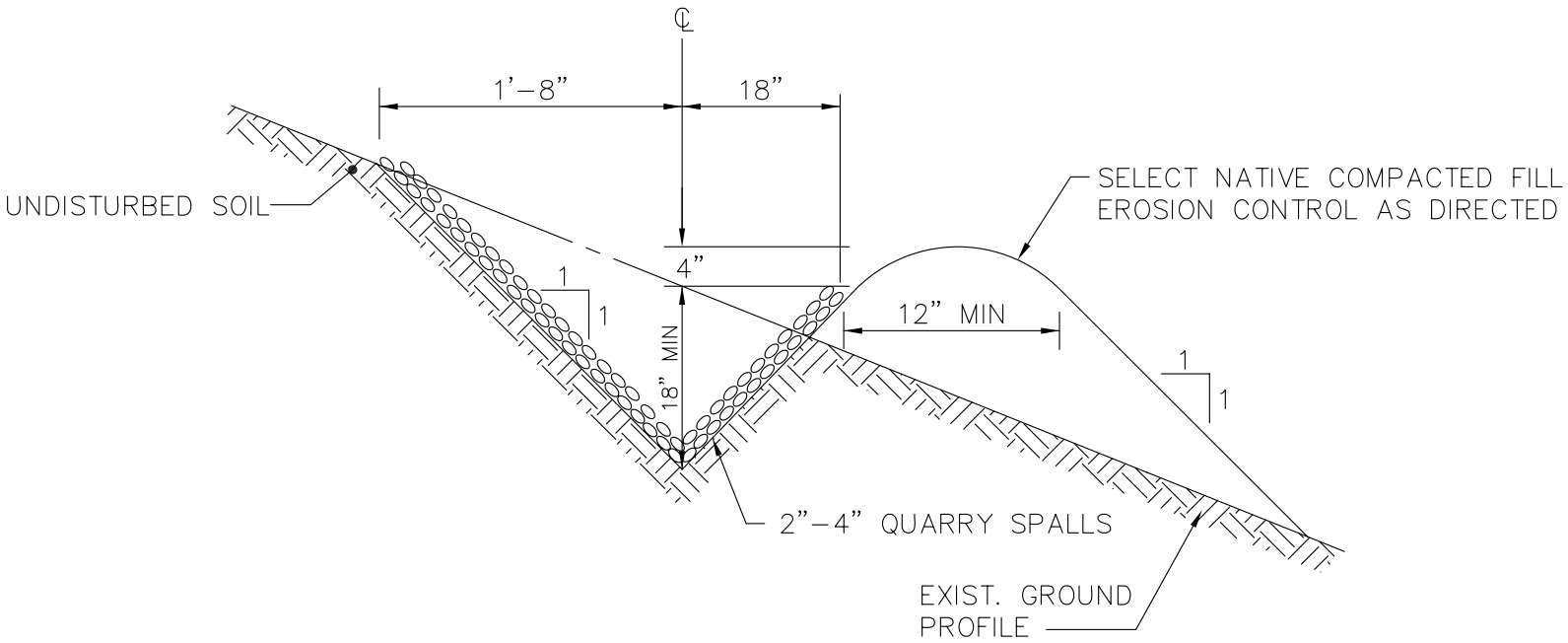
CITY OF Marysville WASHINGTON

INTERCEPTOR SWALE DETAIL

LAST REVISED 07/14/06

STANDARD PLAN 4–040–010



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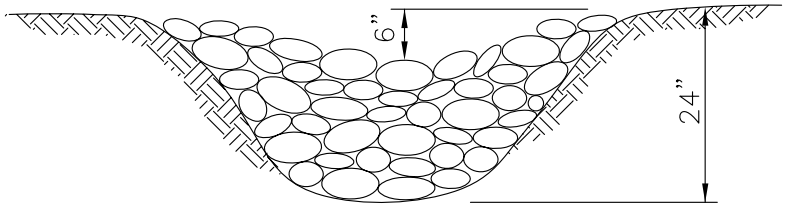
CITY OF Marysville WASHINGTON

ROCK LINED DRAINAGE SWALE

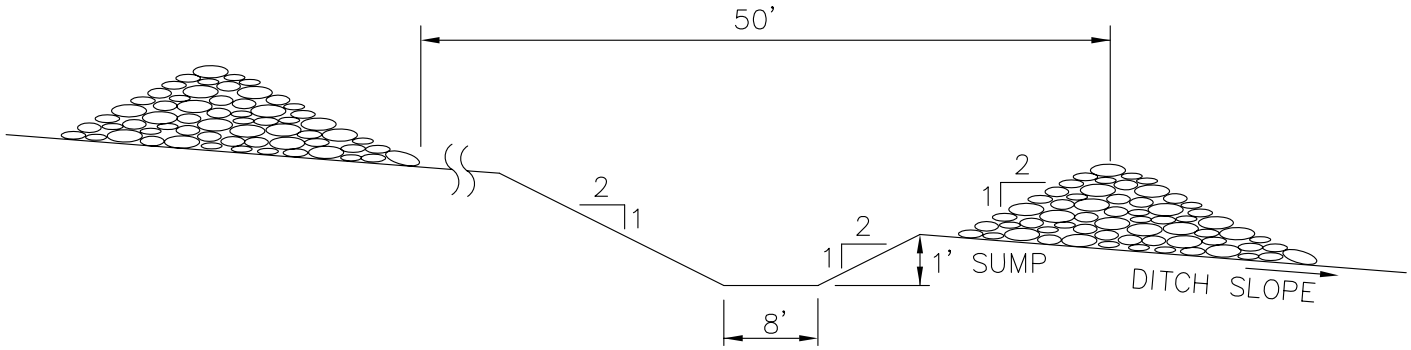
STANDARD PLAN 4–040–011

LAST REVISED 07/14/06



ROCK CHECK DAM

NTS



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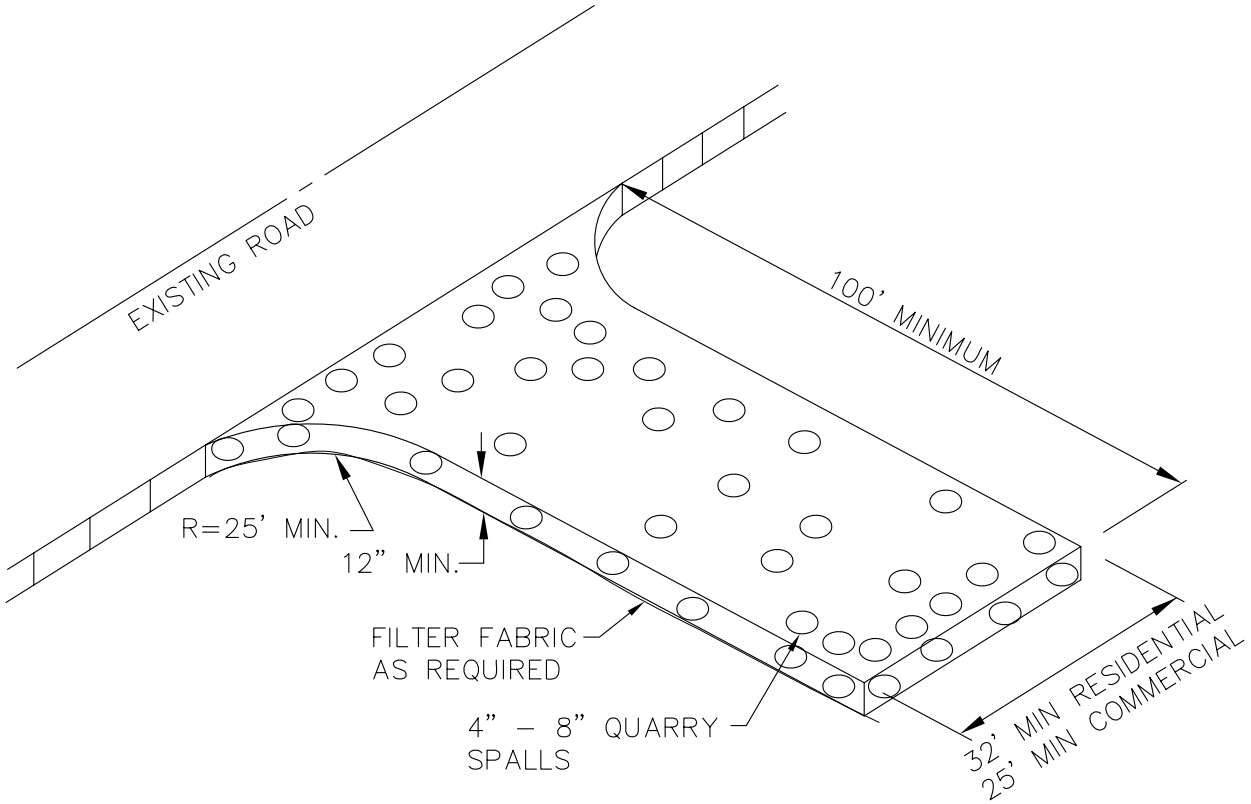
CITY OF Marysville WASHINGTON

SPACING BETWEEN ROCK CHECK DAMS

STANDARD PLAN 4-040-013

LAST REVISED 07/14/06



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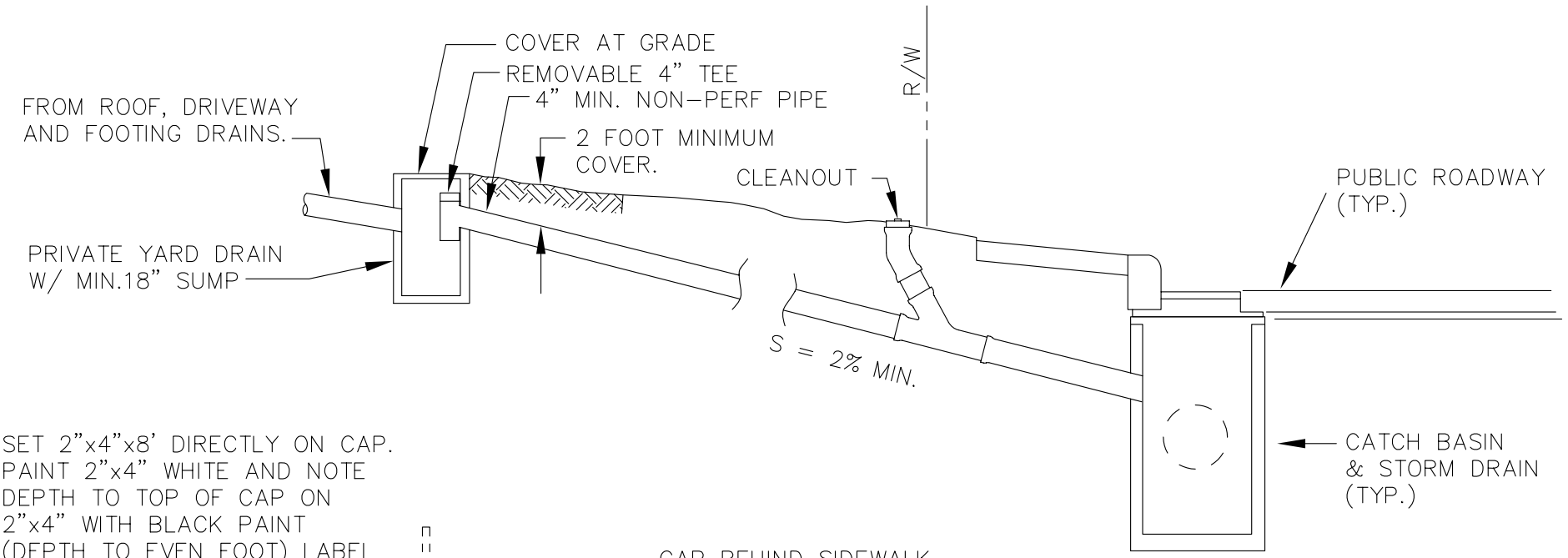
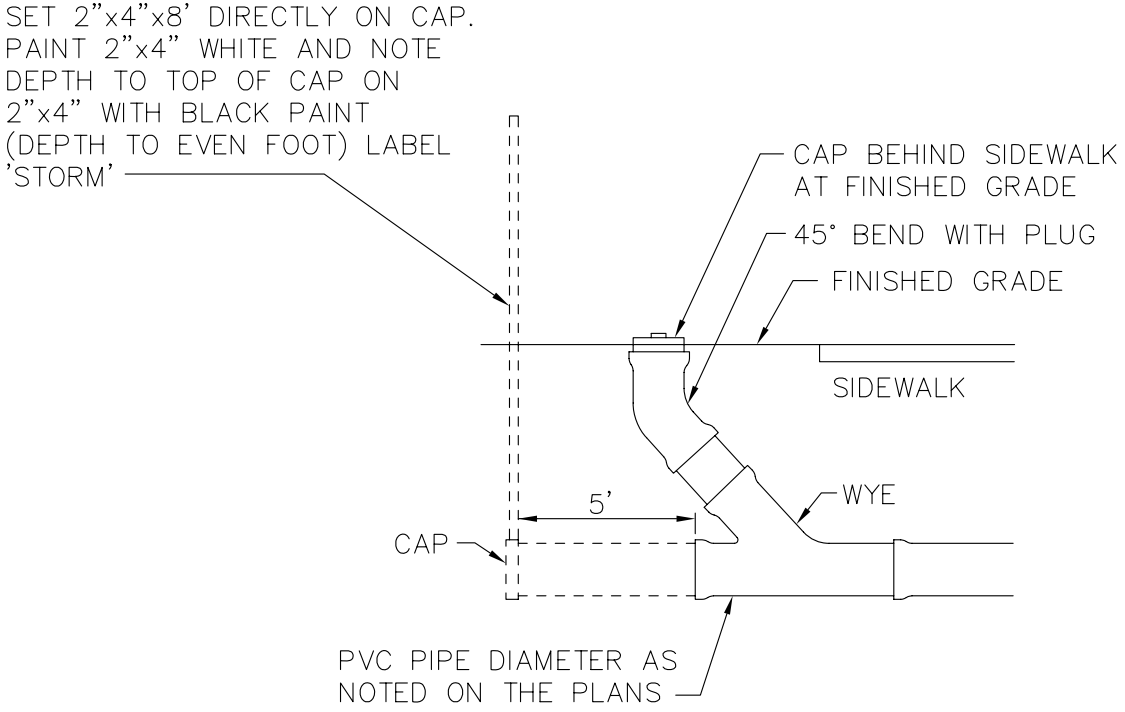
STABILIZED CONSTRUCTION ENTRANCE

CITY OF Marysville WASHINGTON

STANDARD PLAN 4–040–014

LAST REVISED 07/14/06





NOTE:

IF CLEANOUT FALLS IN DRIVEWAY USE STANDARD PLAN 5-145-001 FOR UPPER RING AND COVER

ROOF DRAIN CLEANOUT DETAIL

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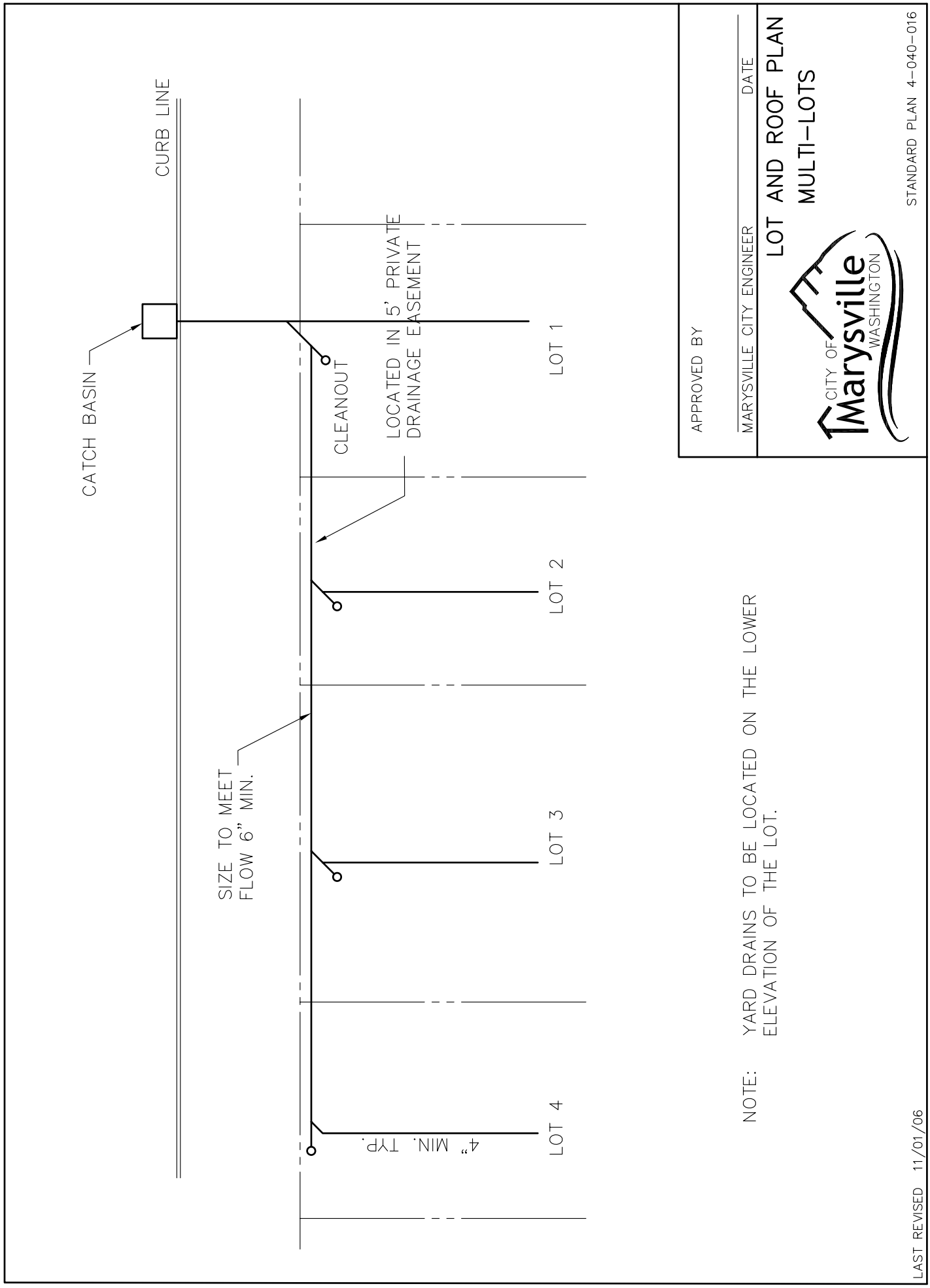
CITY OF Marysville WASHINGTON

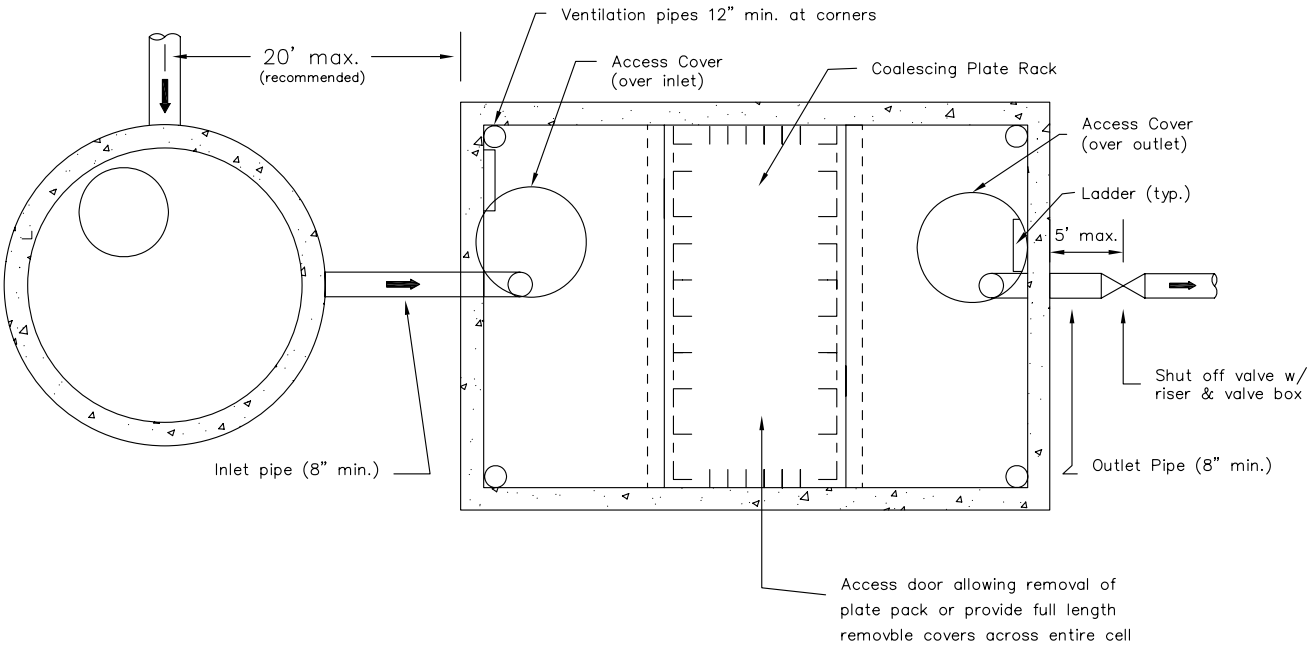
INDIVIDUAL LOT & ROOF PLAN DETAILS

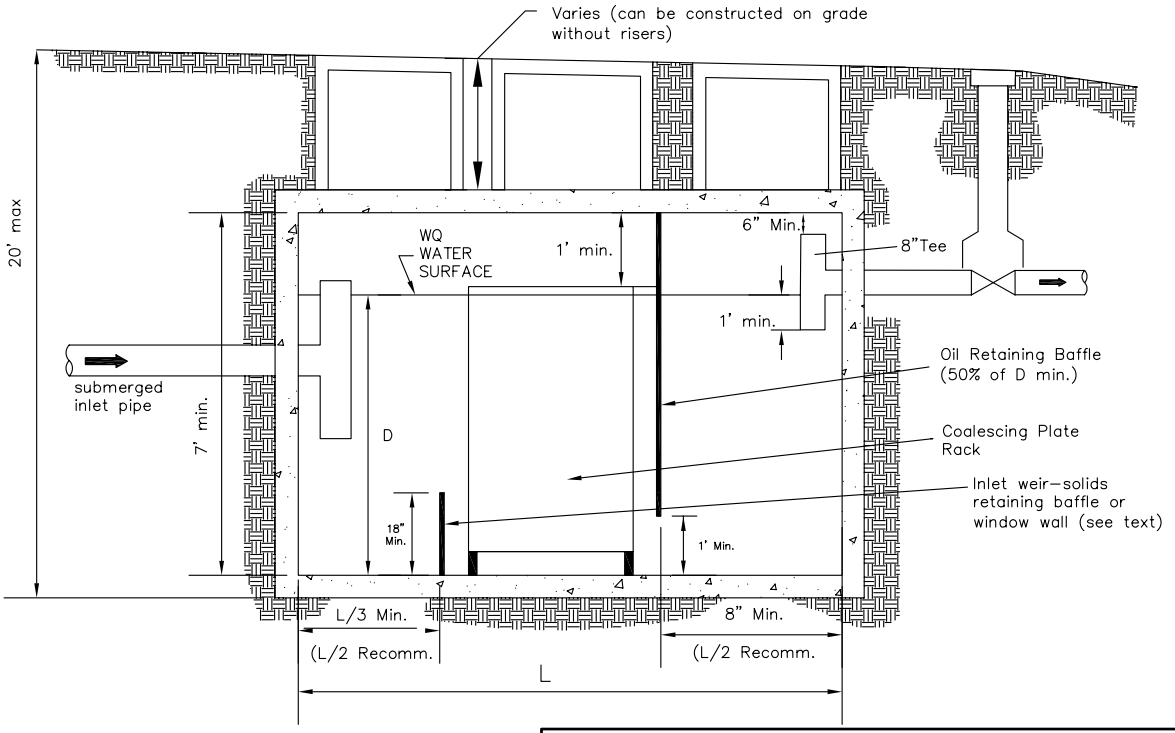
STANDARD PLAN 4-040-015

LAST REVISED 11/01/06


CURB LINE
CATCH BASIN
CLEANOUT
LOCATED IN 5' PRIVATE DRAINAGE EASEMENT
SIZE TO MEET FLOW 6" MIN.
4" MIN. TYP.
LOT 1
LOT 2
LOT 3
LOT 4
APPROVED BY
MARYSVILLE CITY ENGINEER
DATE
LOT AND ROOF PLAN
MULTI-LOTS
CITY OF Marysville WASHINGTON
STANDARD PLAN 4-040-016
NOTE: YARD DRAINS TO BE LOCATED ON THE LOWER ELEVATION OF THE LOT.
LAST REVISED 11/01/06

PLAN VIEW





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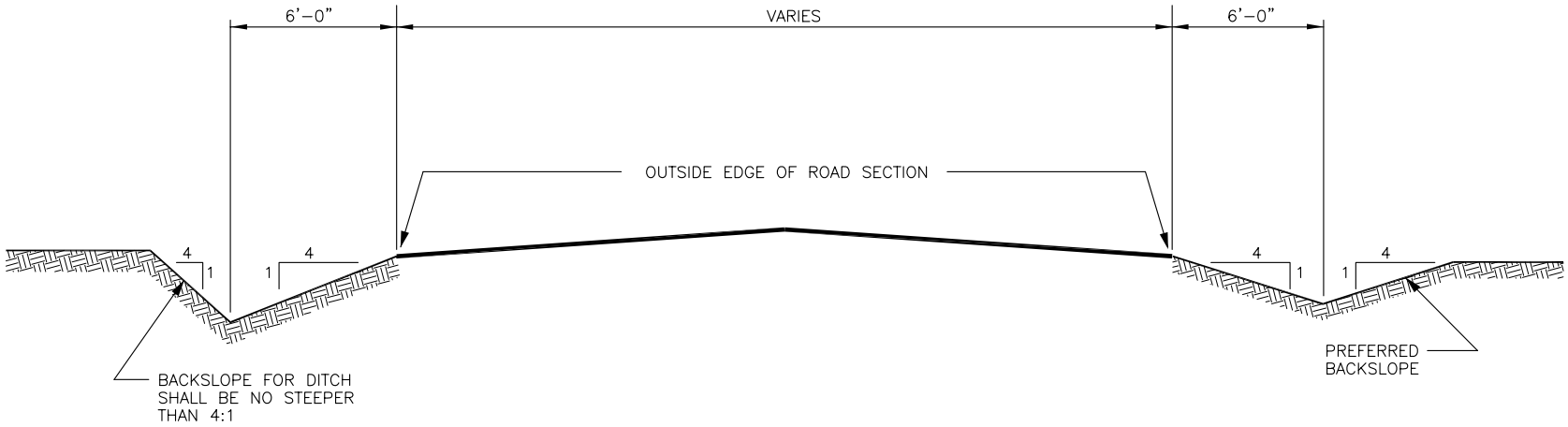
STANDARD COALESCING PLATE SEPARATOR

CITY OF Marysville WASHINGTON

LAST REVISED 07/18/06

STANDARD PLAN 4–040–017



NOTES:

1. ACTUAL ROAD SURFACING DESIGN SHALL BE BASED ON SOILS AND TRAFFIC ANALYSIS PER SECTION 3–3.
2. DITCH SECTION AND/OR LOCATIONS MAY VARY TO MEET REQUIREMENTS OF THE STORMWATER MANAGEMENT MANUAL FOR THE PUGET SOUND BASIN.
3. REFER TO SECTION 3–4 FOR MAIL BOX LOCATIONS.
4. FINISHED ROAD GRADE:
   MINIMUM 0.50%
   MAXIMUM 7.0%
   GREATER THAN 7% SEE STD. PLAN 4–080–002
5. SEE SECTION 3–1 FOR MINIMUM ROAD WIDTH REQUIREMENTS.

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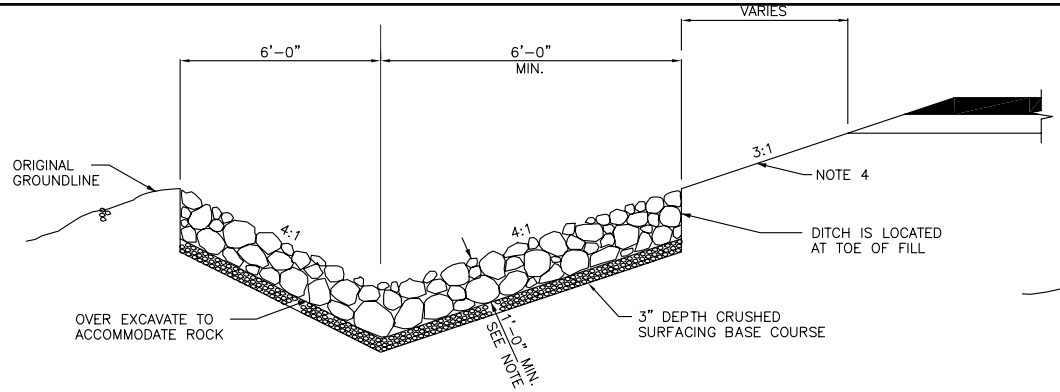
CITY OF Marysville WASHINGTON

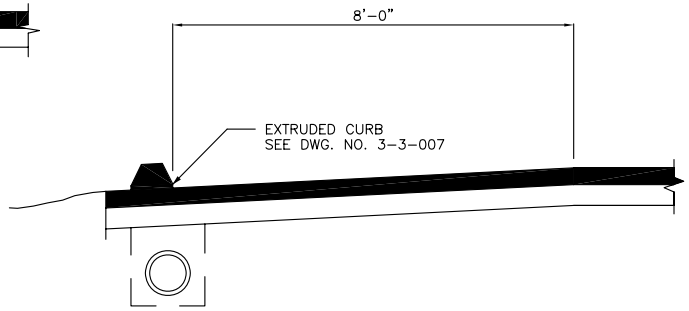
DITCH SECTIONS

STANDARD PLAN 4–080–001

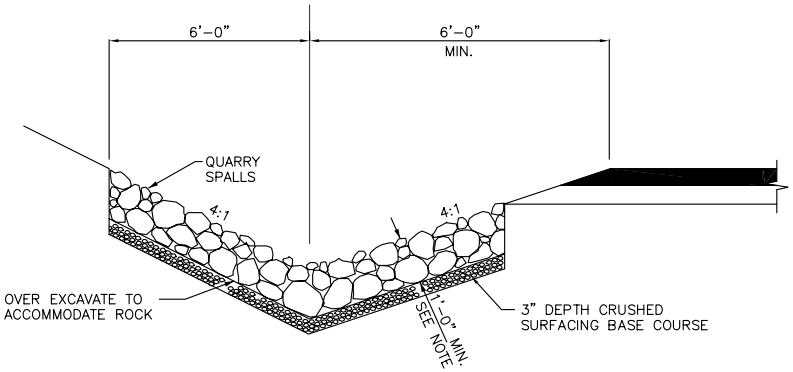
LAST REVISED 01/02/07



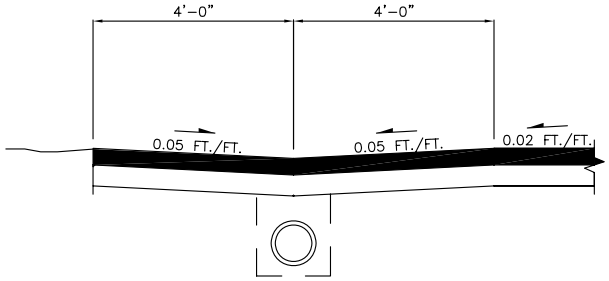
ROCK–LINED SHOULDER DITCH
IN FILL SECTION



CURBED SHOULDER



ROCK–LINED SHOULDER DITCH
IN CUT SECTION



TURNPIKE SHOULDER

NOTES FOR ROCK LINED DITCHES

1. DEEPER ROCK FILL MAY BE SPECIFIED.
2. USE FOR FINISH ROAD GRADES – 0.5% TO 9%
3. FOR SLOPES GREATER THAN 7% PROTECT SLOPE WITH ROCK
   FOR SLOPES LESS THAN 7% PLACE CRUSHED ROCK OR HYDROSEED.

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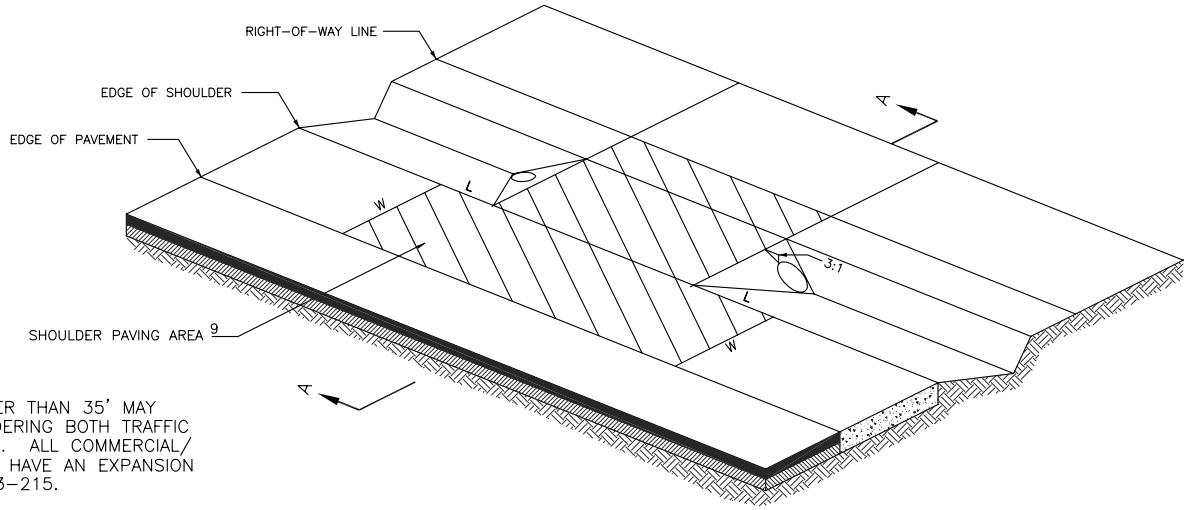
CITY OF Marysville WASHINGTON

ROCK LINED SHOULDER DITCHES & CURBED OR TURNPIKE SHOULDERS

STANDARD PLAN 4–080–002

LAST REVISED 01/02/07



NOTES:

1. COMMERCIAL/INDUSTRIAL DRIVEWAYS WIDER THAN 35' MAY BE APPROVED BY THE ENGINEER CONSIDERING BOTH TRAFFIC SAFETY AND THE ACTIVITY BEING SERVED. ALL COMMERCIAL/ INDUSTRIAL CONCRETE DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED MID-WIDTH. SEE SEC. 3-215.

2. PIPE SHALL BE:
   A. SIZED TO CONVEY COMPUTED STORM WATER RUNOFF, AND
   B. MIN. 12" DIAM., AND
   C. EQUAL TO OR LARGER THAN EXISTING PIPES WITHIN 500' UPSTREAM.

3. EXPOSED PIPE ENDS SHALL BE BEVELED TO MATCH THE SLOPE FACE AND PROJECT NO MORE THAN 2" BEYOND SLOPE SURFACE. PROJECTING HEADWALLS ARE NOT ACCEPTABLE.

4. CONCRETE PIPE SHALL HAVE MIN. COVER OF 6" TO FINISH GRADE. ALL OTHER TYPES OF PIPE SHALL HAVE MIN. 24" COVER.

5. PIPE SHALL BE INSTALLED IN A STRAIGHT UNIFORM ALIGNMENT AT A MIN. 0.5% SLOPE (0.5 FT. PER 100 FT.) WITH THE DOWNSTREAM END LOWER THAN THE UPSTREAM END.

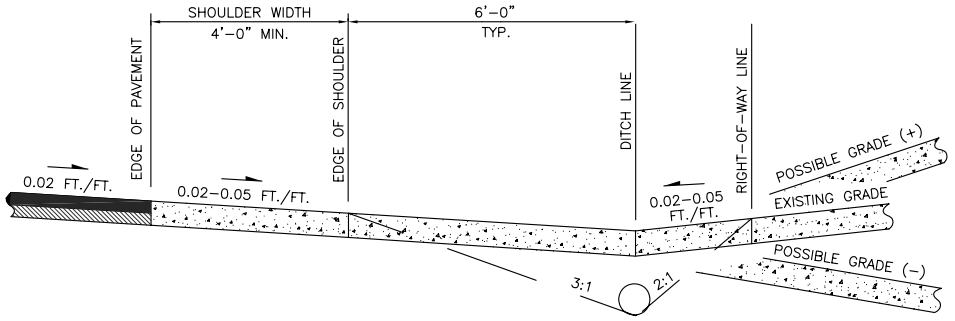
6. PIPE MAY BE OMITTED IF ROADSIDE DITCH DOES NOT EXIST AND DRIVEWAY DOES NOT BLOCK NATURAL FLOW.

7. DRIVEWAY SLOPE SHALL MATCH TO BACK EDGE OF SHOULDER, BUT SHOULDER SLOPE AND EDGE OF SHOULDER SHALL NOT BE ALTERED AS A RESULT OF DRIVEWAY CONSTRUCTION.

8. PAVED DRIVEWAYS SHALL BE PAVED THROUGH RIGHT-OF-WAY WITH A.C. OR B.S.T., BUT NOT P.C.C.

9. GRAVEL DRIVEWAYS SHALL BE PAVED BETWEEN THE EDGE OF PAVEMENT AND R/W WITH A.C. OR B.S.T. ONLY WITH DIMENSIONS L=W.

10. TOTAL DRIVEWAY WIDTHS SHALL BE LIMITED TO 30% OF FRONTAGE UNLESS VARIANCE IS GRANTED.



SECTION A-A

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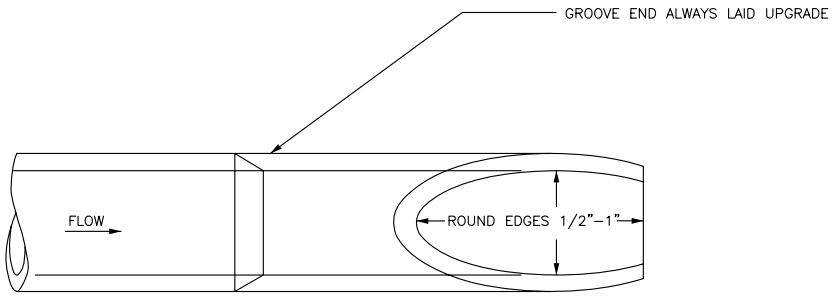
CITY OF Marysville WASHINGTON

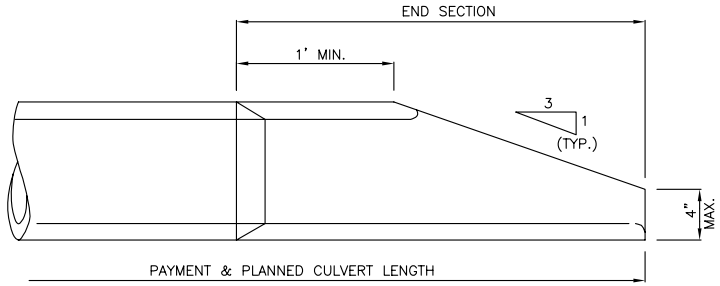
SHOULDER & DITCH SECTION DRIVEWAY

STANDARD PLAN 4-080-003

LAST REVISED 01/02/07

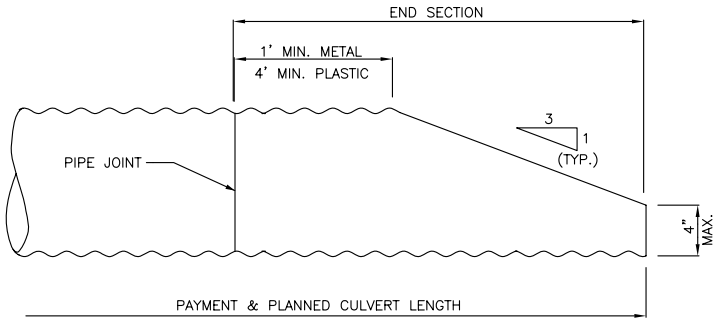


PLAN



ELEVATION

CONCRETE PIPE



METAL & PLASTIC PIPE

NOTE:

SIDE SLOPE SHALL BE WARPED TO MATCH THE BEVELED PIPE END. WHEN CULVERT IS ON SKEW, BEVELED END SHALL BE ROTATED TO CONFORM TO SLOPE. IF SLOPE DIFFERS FROM 3:1, PIPE SHALL BE BEVELED TO MATCH SLOPE.

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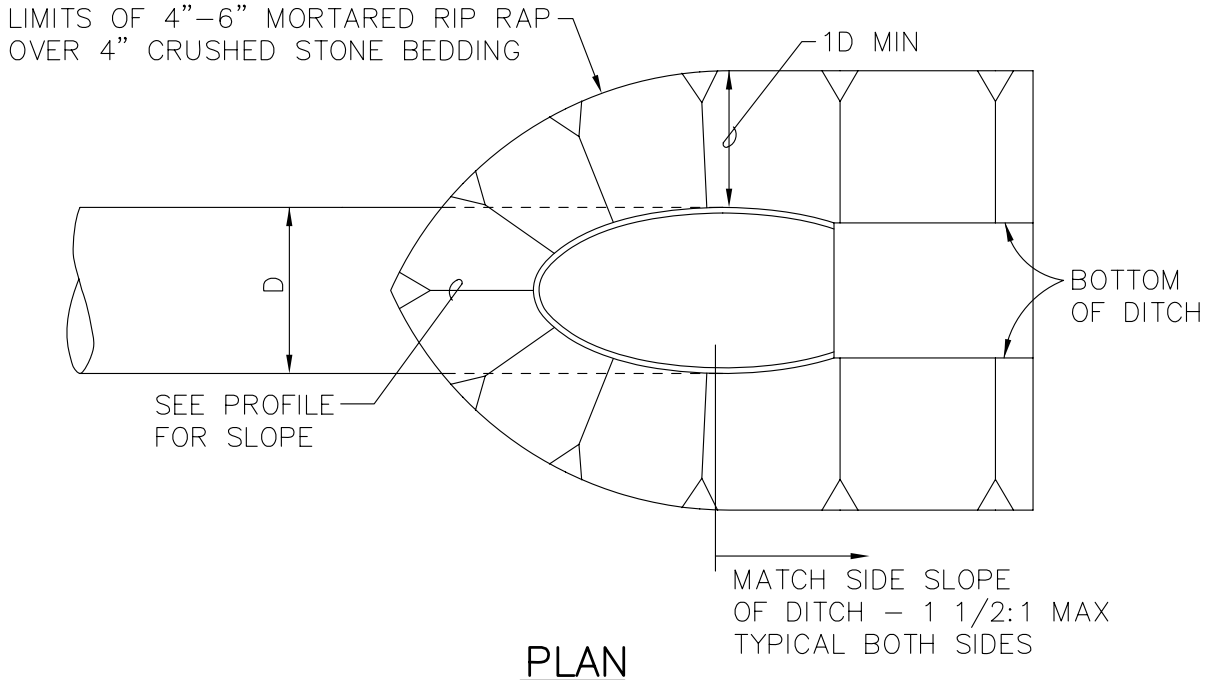
CITY OF Marysville WASHINGTON

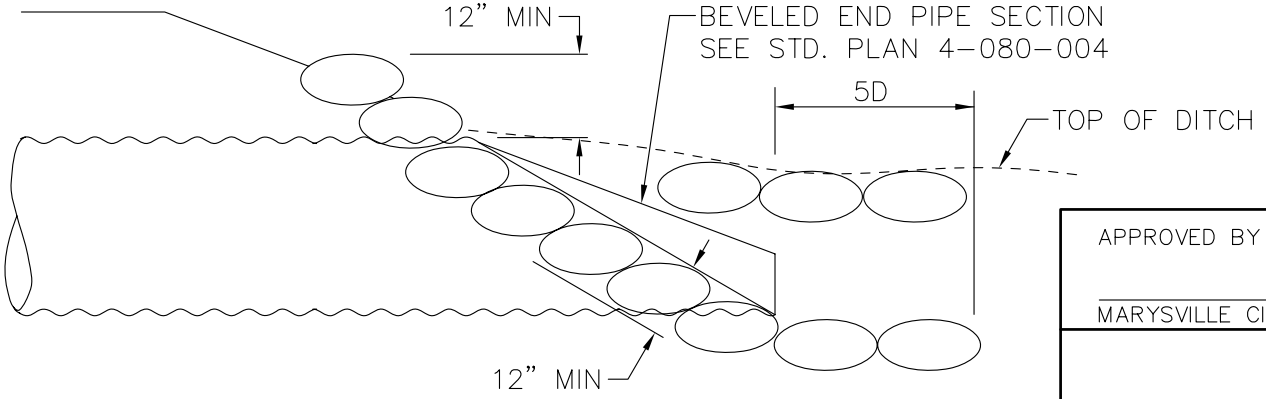
BEVELED END PIPE SECTION

STANDARD PLAN 4–080–004

LAST REVISED 07/14/06



PLAN



PROFILE

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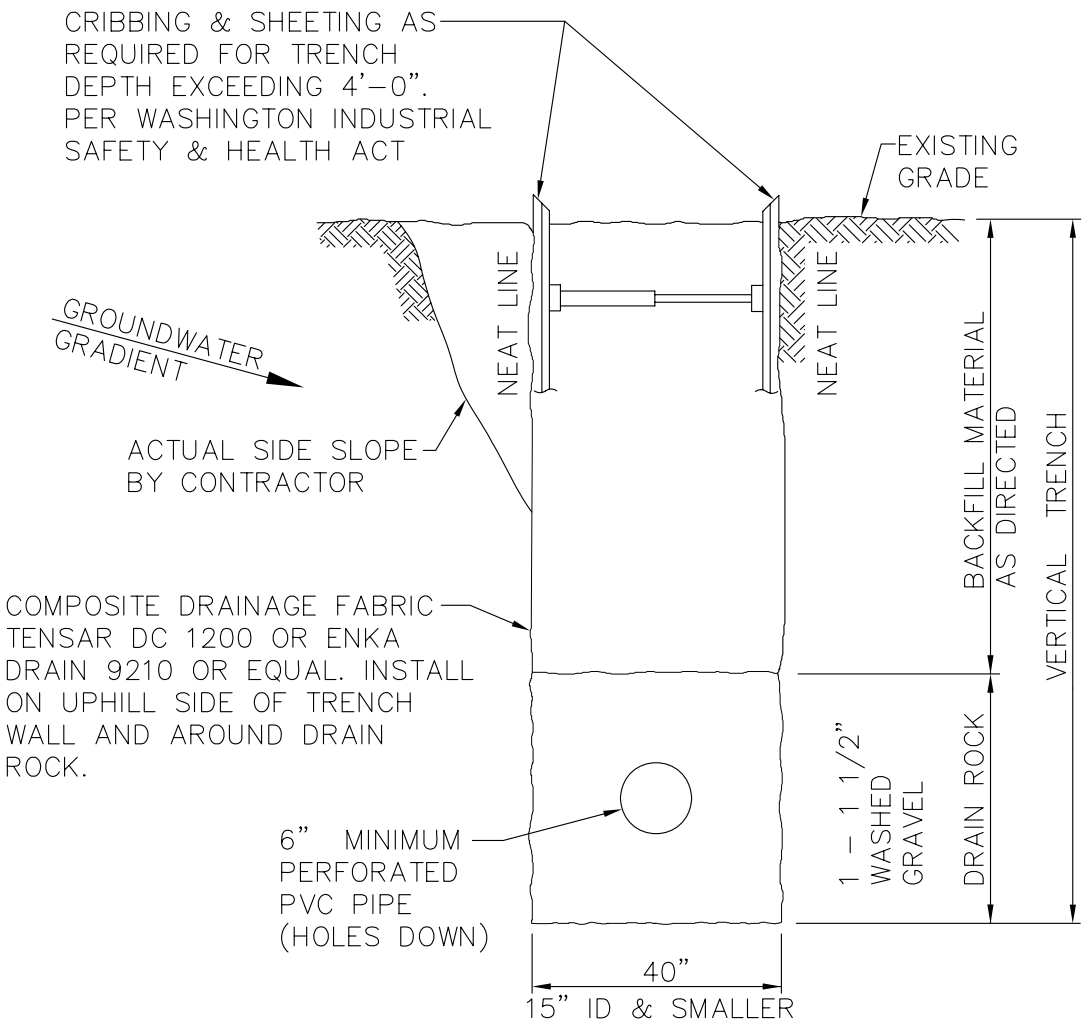
ROCK HEADWALL DETAIL

CITY OF Marysville WASHINGTON

STANDARD PLAN 4–080–005

LAST REVISED 07/14/06



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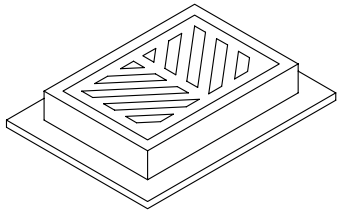
CITY OF Marysville WASHINGTON

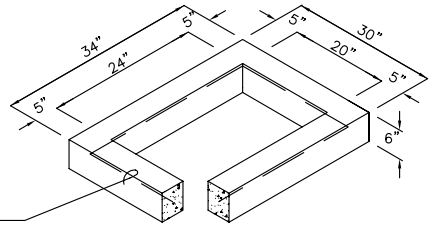
FRENCH DRAIN

LAST REVISED 07/14/06

STANDARD PLAN 4-080-006

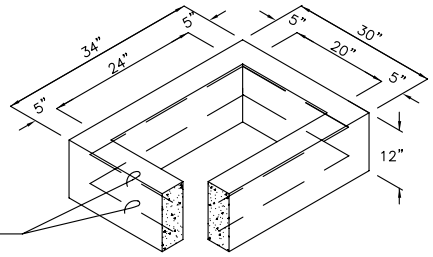


FRAME AND GRATE
SEE SEC. 4-080E AND
APPLICABLE DWGS.



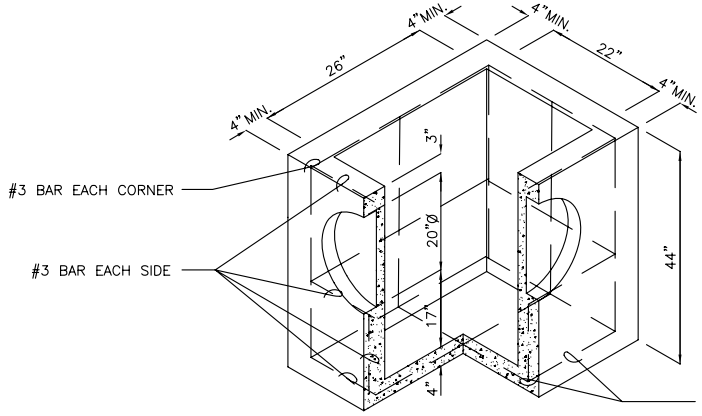
1 #3 BAR HOOP

6" RISER SECTION



2 #3 BAR HOOPS

12" RISER SECTION



#3 BAR EACH CORNER

#3 BAR EACH SIDE

#3 BAR EACH WAY

PRECAST BASE SECTION
(MEASUREMENT AT THE TOP
OF THE BASE)

NOTES:

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES, WITH MAX. DIAM. OF 20". KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT.
9. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
10. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
11. FOR CATCH BASINS IN PARKING LOTS REFER TO WSDOT/APWA STANDARD DWG. B1-b.
12. EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.
13. MINIMUM 4" ADJUSTMENT SECTION BETWEEN BOTTOM OF GRATE AND TOP OF BASE SECTION.

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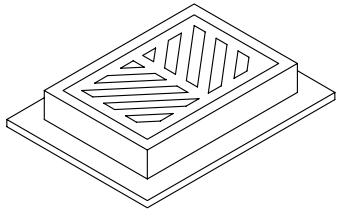
CITY OF Marysville WASHINGTON

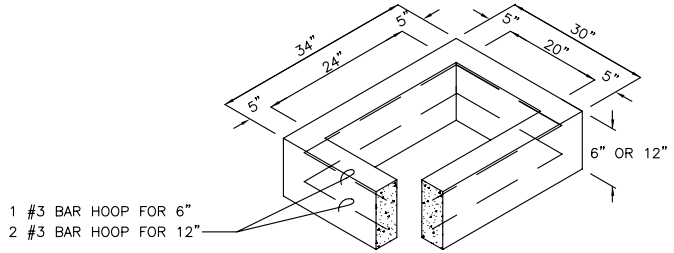
CATCH BASIN TYPE 1 (18" MAX. DIA.)

STANDARD PLAN 4-080-007

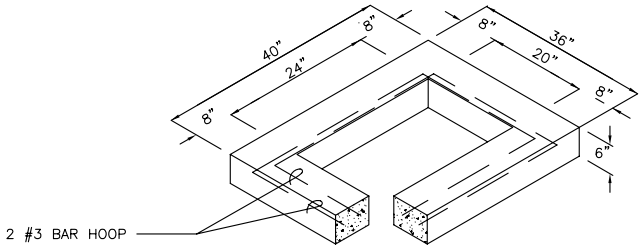
LAST REVISED 07/14/06



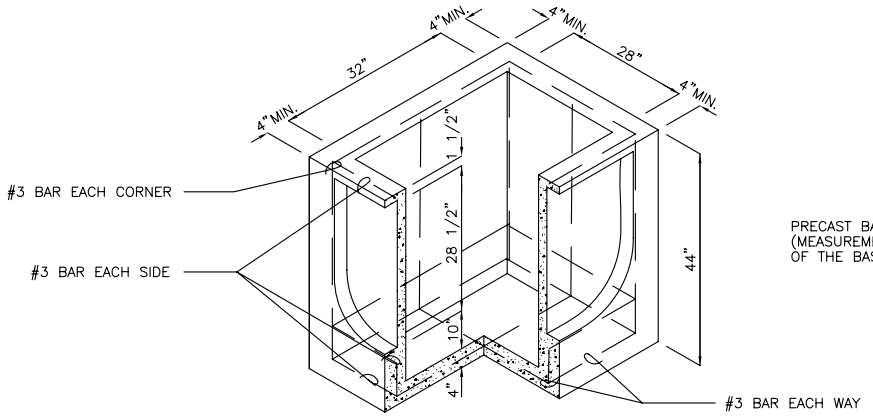
FRAME AND GRATE
SEE SEC. 4-080E AND
APPLICABLE DWGS.



RISER SECTION



6" REDUCING SECTION



PRECAST BASE SECTION
(MEASUREMENT AT THE TOP
OF THE BASE)

NOTES:

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
6. KNOCKOUTS MAY BE ON ALL 4 SIDES WITH MAX. DIAM. OF 28". KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT.
8. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
9. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
10. MAX. DEPTH FROM FINISHED GRADE TO PIPE INVERT SHALL BE 5'-0".
11. EDGE OF REDUCING SECTION OR BRICK SHALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.
12. MINIMUM 4" ADJUSTMENT SECTION BETWEEN BOTTOM OF GRATE AND TOP OF BASE SECTION.

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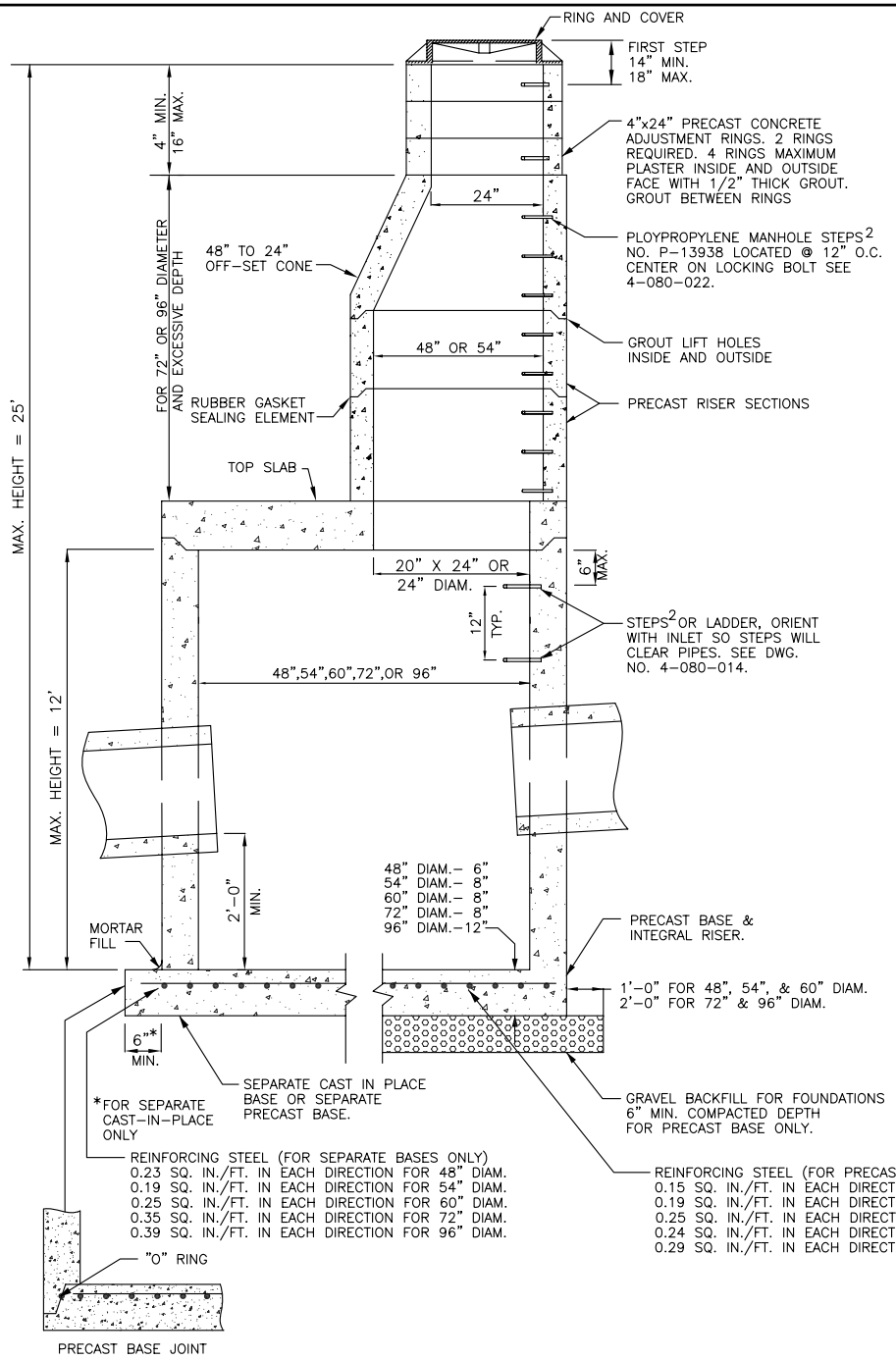
CITY OF Marysville WASHINGTON

CATCH BASIN TYPE 1-L (18"-28" DIA.)

STANDARD PLAN 4-080-008

LAST REVISED 07/14/06



NOTES:

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M199) AND ASTM C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. STEPS IN CATCH BASIN SHALL HAVE 6" MIN. CLEARANCE. SEE DWG. NO. 4-080-014, CATCH BASIN DETAILS. HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH A MIN. OF ONE HANDHOLD BETWEEN THE LAST STEP AND TOP OF THE MANHOLE.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2" MIN. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT. PIPES SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS. MAX. HOLE SIZE SHALL BE 36" FOR 48" CATCH BASIN, 42" FOR 54" C.B., 48" FOR 60" C.B., 60" FOR 72" C.B., 84" FOR 96" C.B. MIN. DISTANCE BETWEEN HOLES SHALL BE 8" FOR 48", 54", AND 60" C.B.; 12" FOR 72" AND 96" C.B.
6. CATCH BASIN FRAMES AND GRATES OR COVERS SHALL BE IN ACCORDANCE WITH SEC. 4-080(D) AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
7. ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MIN. CLEARANCE.
8. MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT.
9. FOR DETAILS SHOWING LADDER, STEPS, HANDRAILS AND TOP SLABS, SEE DWG. NO. 4-080-014.
10. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SEC. 7-05.3 FOR JOINT REQUIREMENTS.

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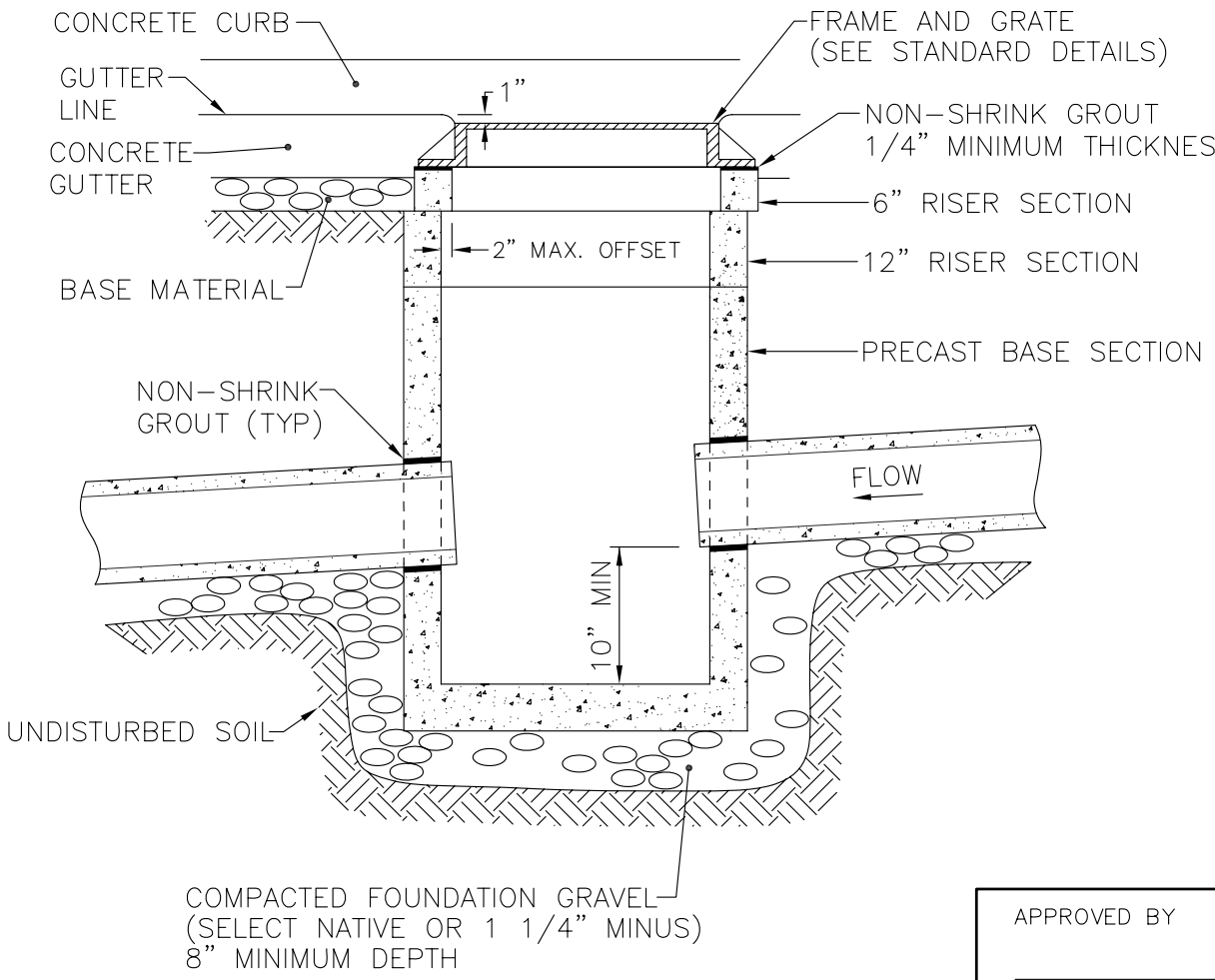
CITY OF Marysville WASHINGTON

CATCH BASIN TYPE 2
48",54",72",96"

STANDARD PLAN 4-080-009

LAST REVISED 01/02/07



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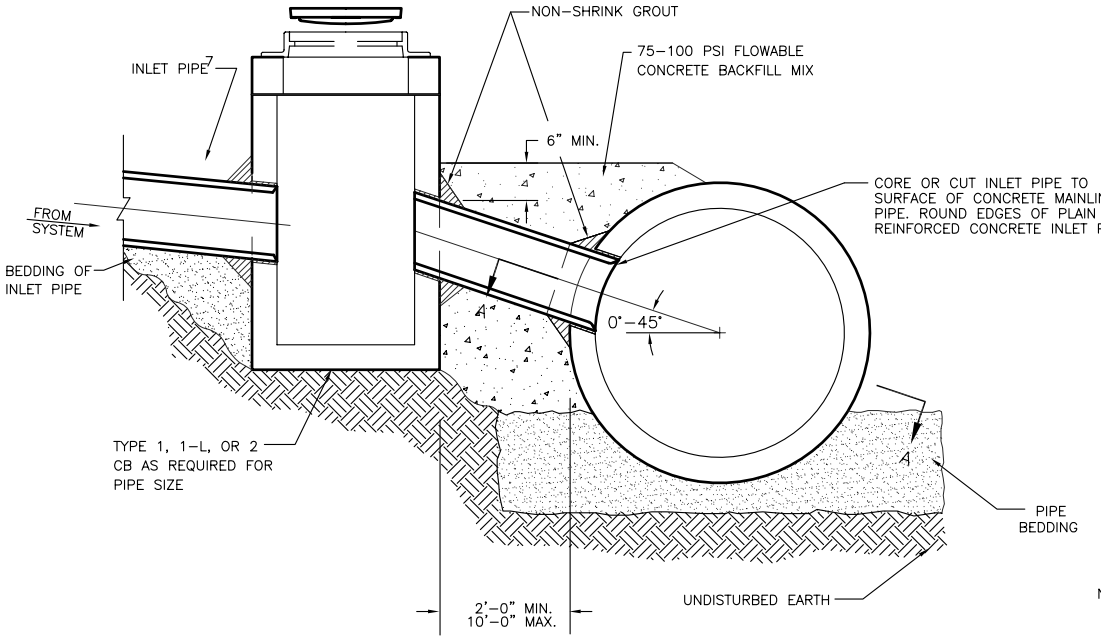
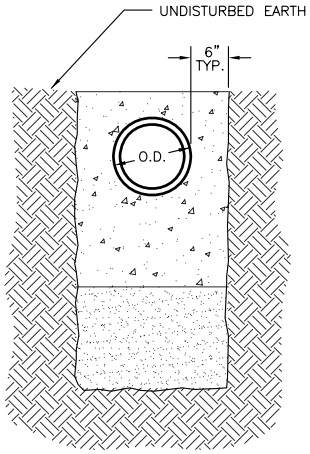
CITY OF Marysville WASHINGTON

CATCH BASIN INSTALLATION DETAIL TYPE 1 & 1L

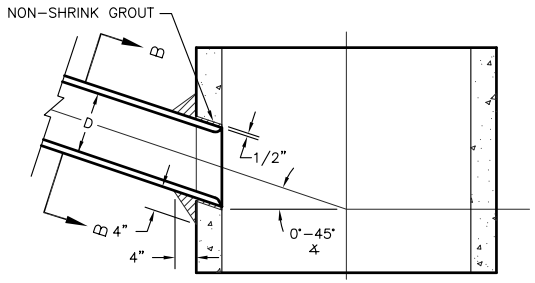
STANDARD PLAN 4-080-010

LAST REVISED 07/14/06





SECTION B–B



SECTION A–A

NOTES:

1. "D", THE INSIDE DIAM. OF THE INLET PIPE, SHALL BE 24" OR LESS. FOR LARGER VALUES OF "D", USE AN APPROVED STRUCTURE.
2. IN NO CASE SHALL THE OUTSIDE DIAM. OF THE INLET PIPE EXCEED ONE–HALF THE INSIDE DIAM. OF THE MAIN STORM SEWER.
3. ℄ OF INLET PIPE SHALL BE ON RADIUS OF MAIN STORM DRAIN.
4. THE MIN. OPENING INTO THE EXISTING STORM DRAIN SHALL BE THE OUTSIDE DIAM. OF THE INLET PIPE PLUS 1 IN.
5. IF ∠ IS GREATER THAN 45° FIELD TAPPING IS NOT ALLOWED.
6. SEE SEC. 4–080(C).
7. SEE SEC. 4–080(B) FOR ALLOWED INLET PIPE TYPE.

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MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

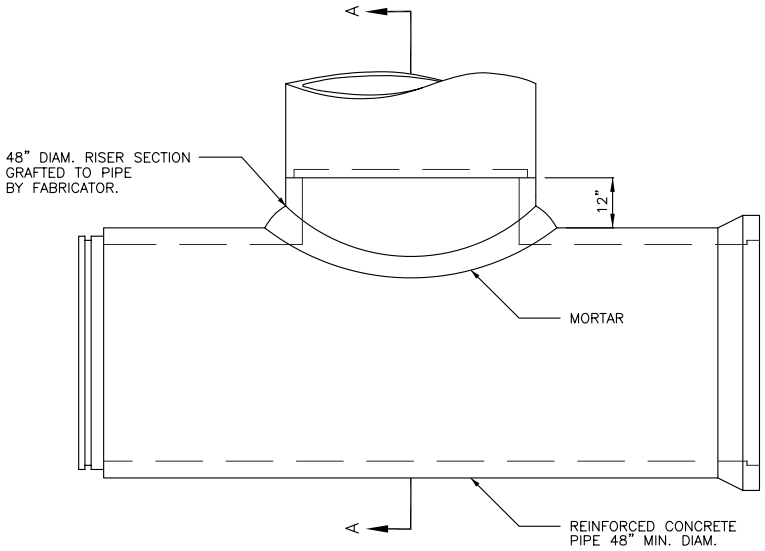
FIELD TAPPING OF CONCRETE PIPE

STANDARD PLAN 4–080–011

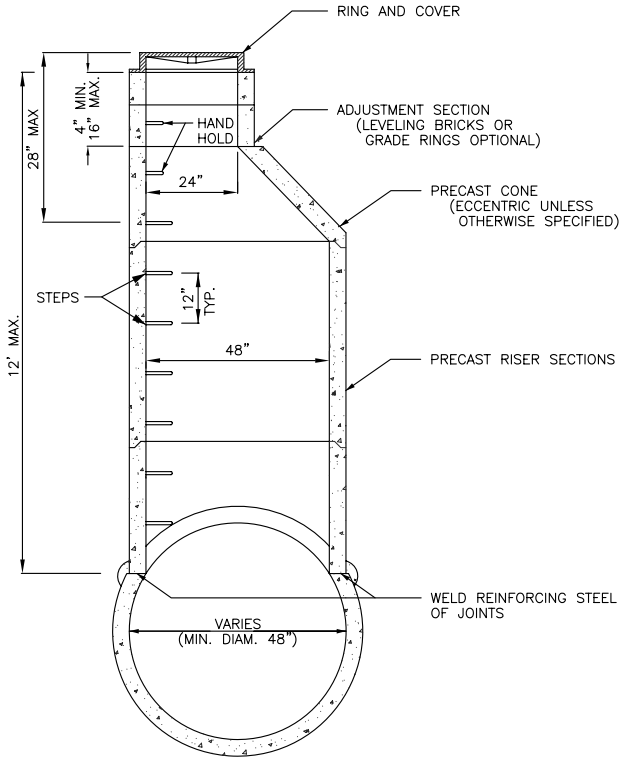
LAST REVISED 01/02/07

NOTES:

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. STEPS IN MANHOLE SHALL HAVE 6" MIN. CLEARANCE. SEE DWG. NO. 4-080-014, "MANHOLE DETAILS."
3. MANHOLE RINGS AND COVERS SHALL BE IN ACCORDANCE WITH SEC. 4-080(D) AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
4. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
5. FOR DETAILS SHOWING GRADE RING, LADDER, STEPS, HANDHOLDS, AND TOP SLABS, SEE DWG. NO. 4-080-014, "MANHOLE DETAILS".
6. NOT FOR USE IN TRAFFIC BEARING AREAS.



ELEVATION



SECTION A-A

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MANHOLE TYPE 4

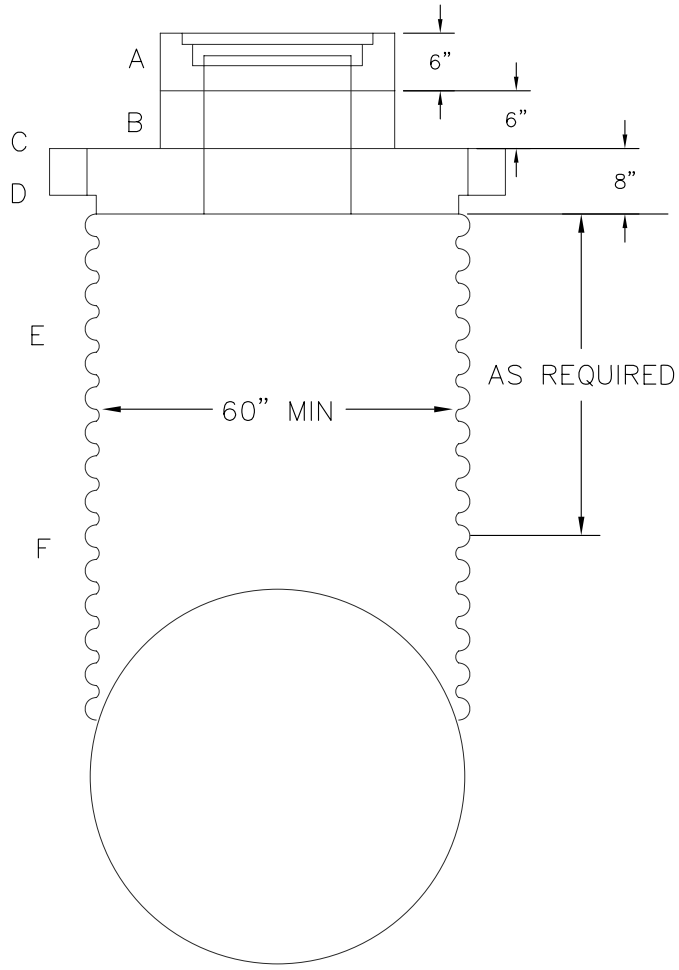
CITY OF Marysville WASHINGTON

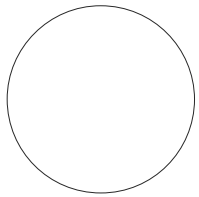
STANDARD PLAN 4-080-012

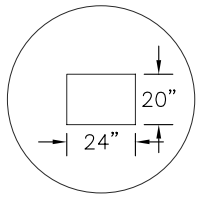
LAST REVISED 01/02/07

A. CONCRETE TOP SLAB: SHORT ADJUSTMENT SECTION WITH DUCTILE IRON FRAME AND GRATE, PER STDS.
B. CONCRETE 6" ADJUSTMENT SECTION AS REQUIRED.
C. CONCRETE REDUCING FLAT SLAB: UNITS "M", "N", "P", OR "R", AS REQUIRED BY PLANS.
D. OPTIONAL STEEL LID FOR HS20 LOAD.
E. RISER: 10 GAUGE 54" HELICAL OR ANULAR CORRUGATED PIPE IN HEIGHTS AS REQUIRED. FOR HEIGHTS GREATER THAN 4' USE PRE FABRICATED LADDER PER APWA STANDARD PLAN B-13.
F. CORRUGATED PIPE 60" AND GREATER IN DIAMETER WITH GAUGE AND SIZE AS REQUIRED ON PLAN.

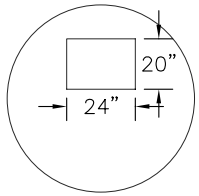
NOTE: ALL METAL PARTS AND SURFACES MUST BE MADE OF CORROSION RESISTANT MATERIAL OR ASPHALT COATED GALVANIZED, TREATMENT #1 OR BETTER; COMPLETE CORROSION PROTECTION MUST BE ASSURED.




UNIT "M"



UNIT "N"



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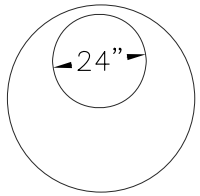

UNIT "R"

NOTE:
NOT FOR PUBLIC
ROADWAY CONSTRUCTION

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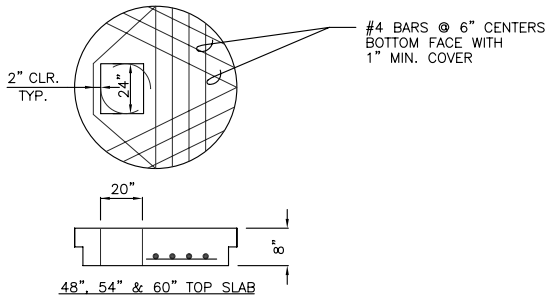
CITY OF Marysville WASHINGTON

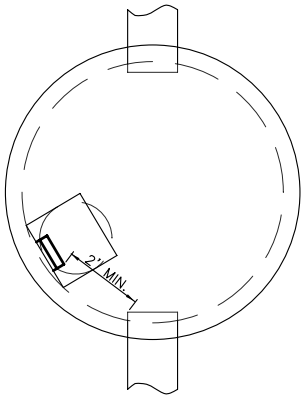
OFFSET CORRUGATED MANHOLE

LAST REVISED 07/14/06

STANDARD PLAN 4-080-013



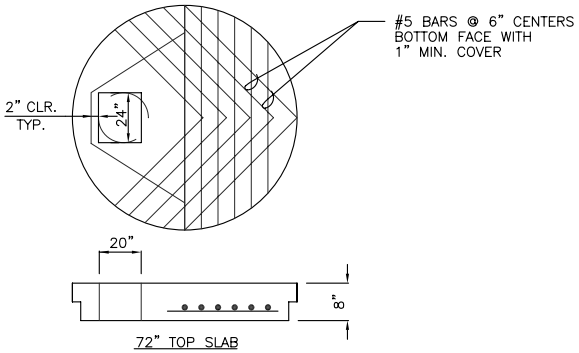
48", 54" & 60" TOP SLAB



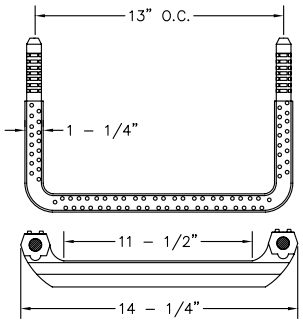
TYPICAL ORIENTATION
FOR ACCESS AND STEPS

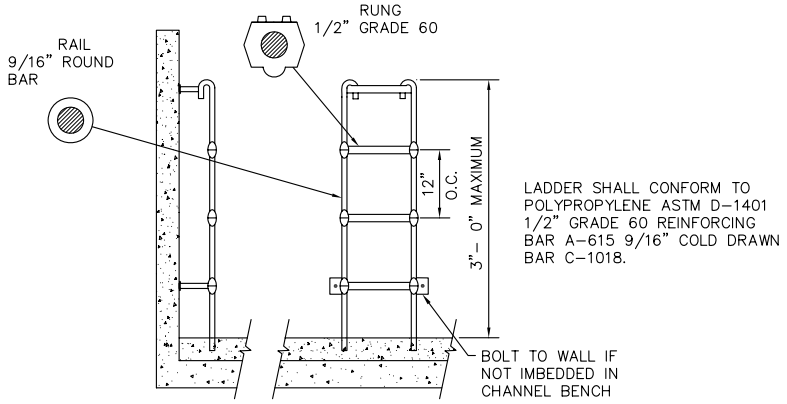
NOTES:

1. PROPRIETARY CATCH BASIN HANDHOLDS AND STEPS ARE ACCEPTABLE, PROVIDED THAT THEY CONFORM TO SEC. R, ASTM C478, AASHTO M–199 AND MEET ALL WISHA REQUIREMENTS.
2. CATCH BASIN STEP/HANDHOLD LEGS SHALL BE PARALLEL OR APPROXIMATELY RADIAL AT THE OPTION OF THE MANUFACTURER, EXCEPT THAT ALL STEPS IN ANY CATCH BASIN SHALL BE SIMILAR. PENETRATION OF OUTER WALL BY A LEG IS PROHIBITED.
3. SLAB OPENING MAY BE 24" X 20" OR 24" DIAM.
4. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497.
5. LADDERS OR STEPS SHALL EXTEND TO WITHIN 16" OF BOTTOM OF CATCH BASIN.
6. HANGING LADDERS SHALL BE PERMANENTLY FASTENED AT TOP BY HANGING ON STEP AND BY BOLTING OR EMBEDDING IN CONCRETE. EACH SHALL BE EMBEDDED AT BOTTOM IN BASE.
7. ADDITIONAL SAFETY FEATURES MAY BE REQUIRED IN VERY DEEP OR UNUSUAL STRUCTURES.

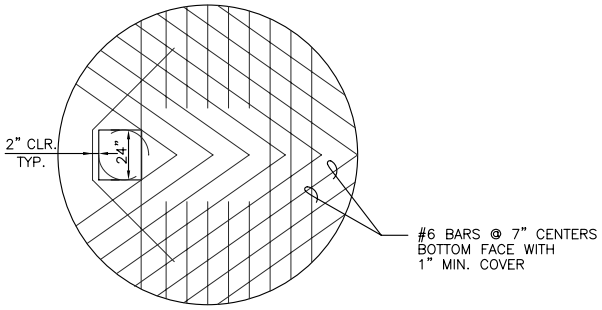


72" TOP SLAB

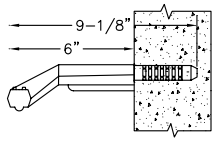




POLYPROPYLENE LADDER



96" TOP SLAB



POLYPROPYLENE STEP, LANE
NO. P–13938 OR EQUAL

POLYPROPYLENE MANHOLE STEPS

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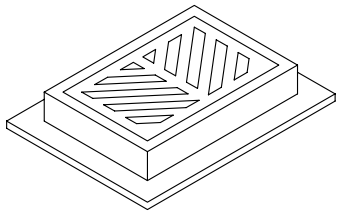
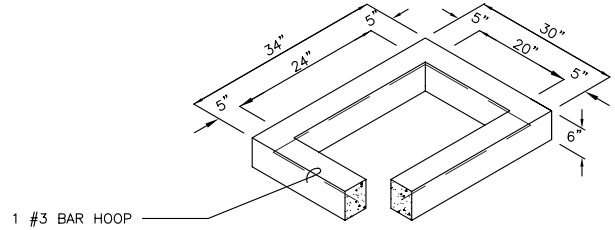
CATCH BASIN & MANHOLE DETAILS

STANDARD PLAN 4–080–014

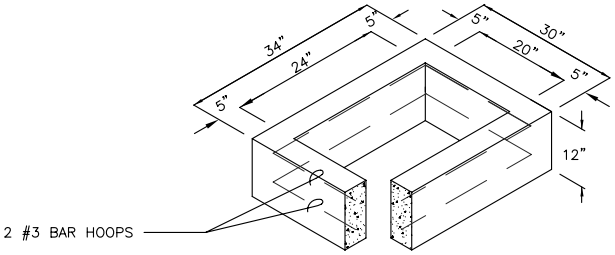
LAST REVISED 07/14/06



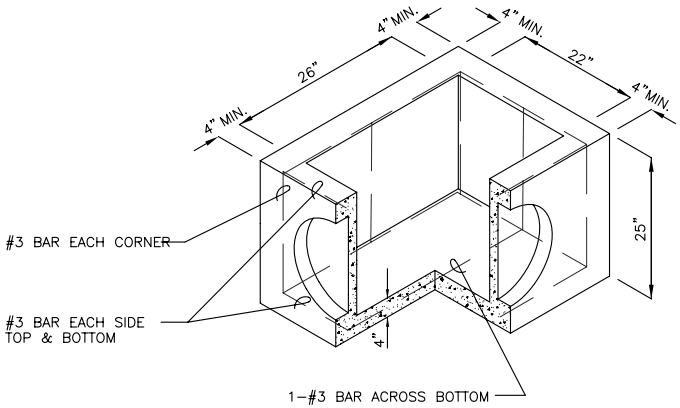
FRAME AND GRATE
SEE SEC. 4-080E AND
APPLICABLE DWGS.



6" RISER SECTION



12" RISER SECTION



PRECAST BASE SECTION
(MEASUREMENT AT THE TOP
OF THE BASE)

NOTES:

1. CURB INLET TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497. WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CURB INLET WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES WITH MAX. DIAM. OF 17".
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT.
9. CONCRETE INLET FRAME AND GRATES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY OTHER COVER POSITION.
10. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
11. MAXIMUM DIAMETER OUTLET 8", MUST BE DIRECTLY CONNECTED TO CATCH BASIN.

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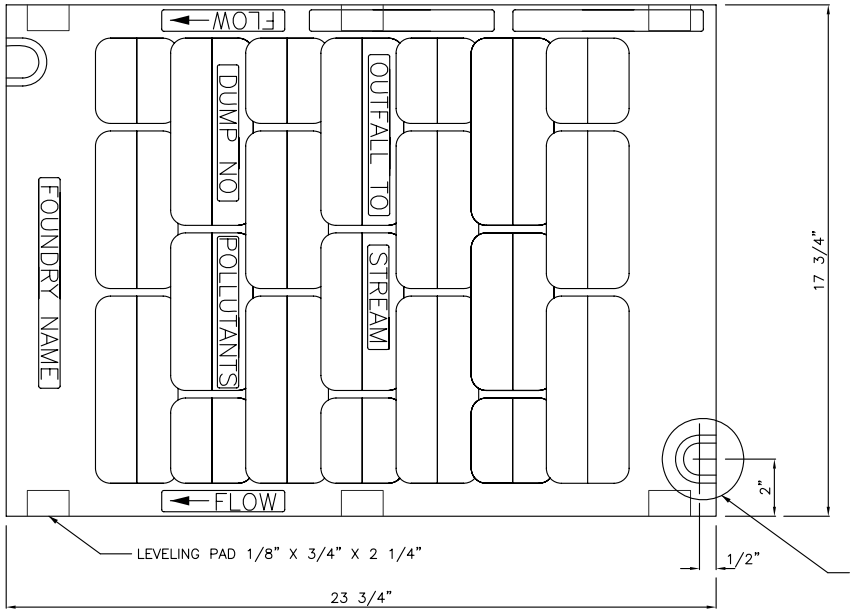
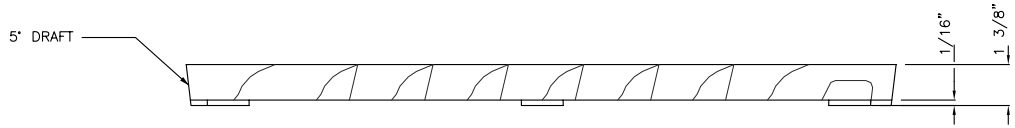
CURB INLET

STANDARD PLAN 4-080-015

LAST REVISED 07/14/06



PLAN



ELEVATION

NOTES:

1. SELF-LOCK VANED GRATE MANUFACTURER SUBJECT TO APPROVAL BY ENGINEER.
2. USE WITH TWO LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2" LONG. NOTE SLOT DETAIL.
3. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
4. "OUTFALL TO STREAM DUMP NO POLLUTANTS" MAY BE LOCATED ON BORDER AREA.
5. SEE SEC. 4-080(D).
6. SEE STANDARD PLAN 4-080-025 FOR FRAME.
7. SHALL BE USED ON ALL ROADS WITH SLOPES EQUAL TO OR GREATER THAN 3%.

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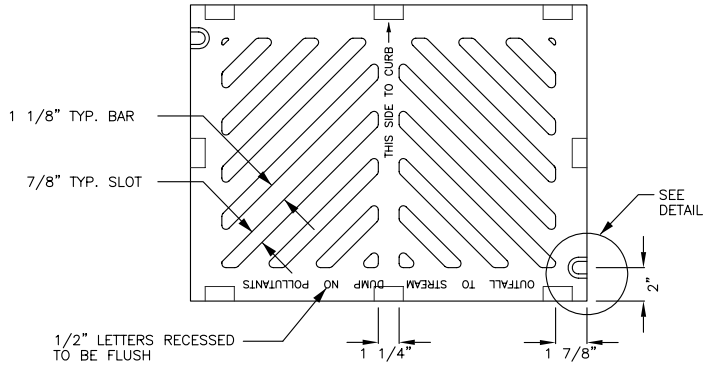
VANED GRATE

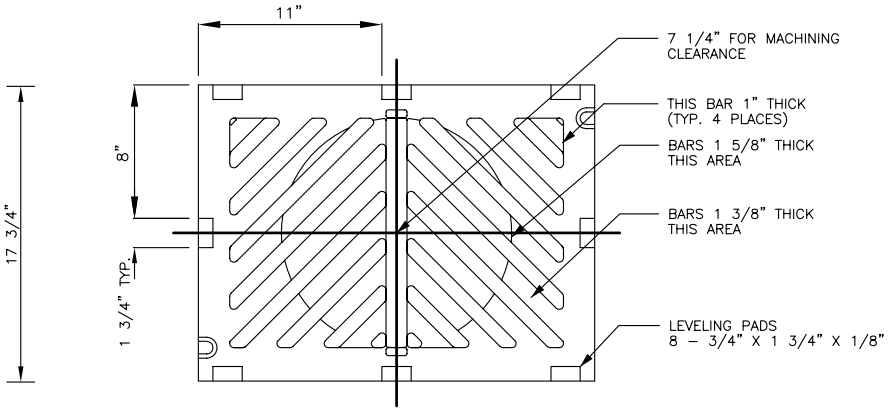
CITY OF Marysville WASHINGTON

STANDARD PLAN 4-080-016

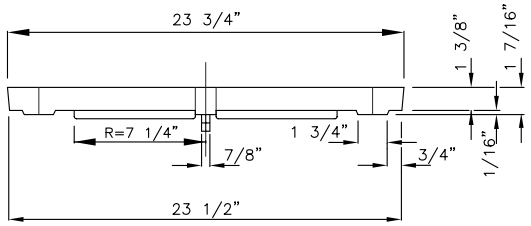
LAST REVISED 01/02/07



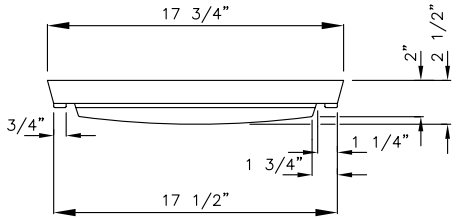
TOP VIEW



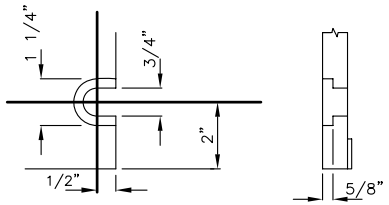
BOTTOM VIEW



SIDE VIEW



END VIEW



SLOT DETAIL

SEE NOTE 1

NOTES:

1. SLOT FORMED AND RECESSED FOR 5/8"–11 NC X 2" SOCKET HEAD (ALLEN HEAD) CAP SCREW. PROVIDE ON ALL GRATES.
2. GRATE SHALL BE CAST IRON PER ASTM A48 CLASS 30 UNLESS OTHERWISE SPECIFIED.
3. SEE SEC. 4–080(D).

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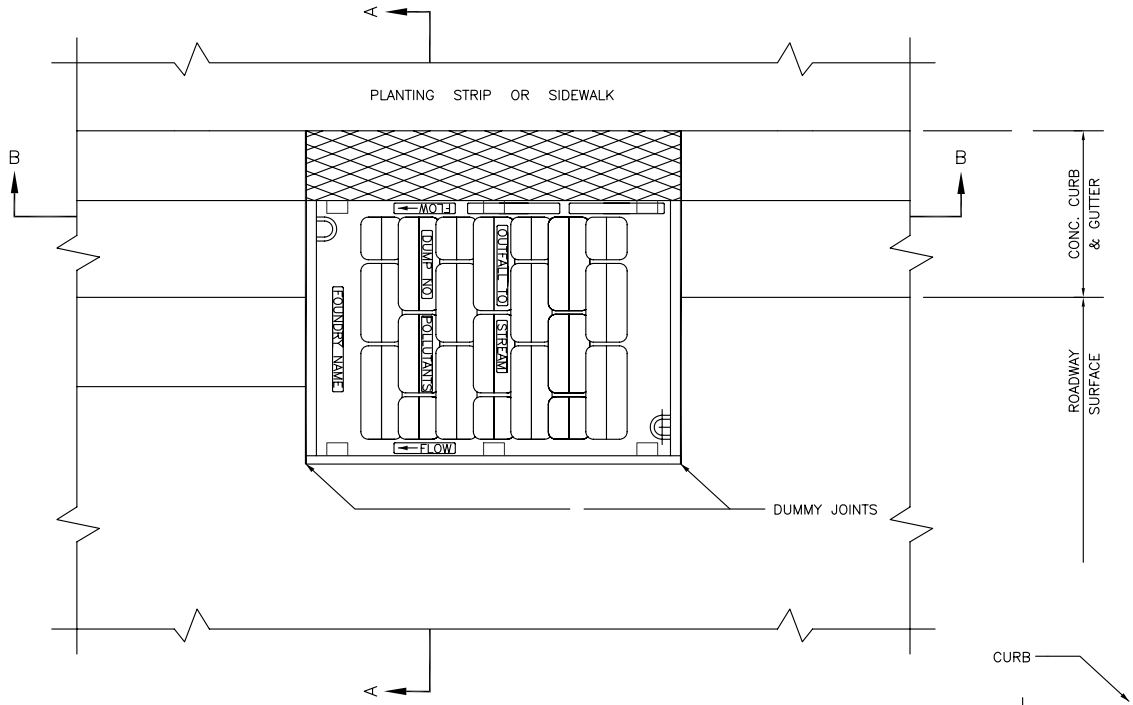
CITY OF Marysville WASHINGTON

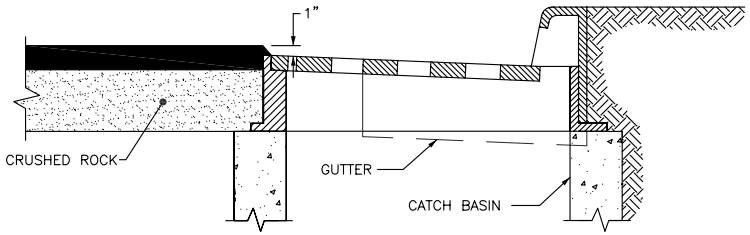
STANDARD GRATE

STANDARD PLAN 4–080–017

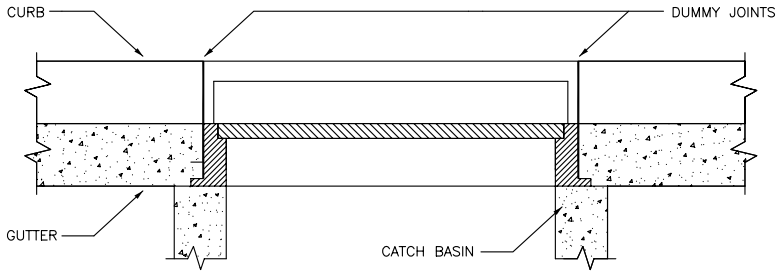
LAST REVISED 01/02/07



PLAN



SECTION A–A



SECTION B–B

NOTES:

1. SET TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.
2. SEE EXPANSION JOINT REQUIREMENTS, CHAPTER 3.

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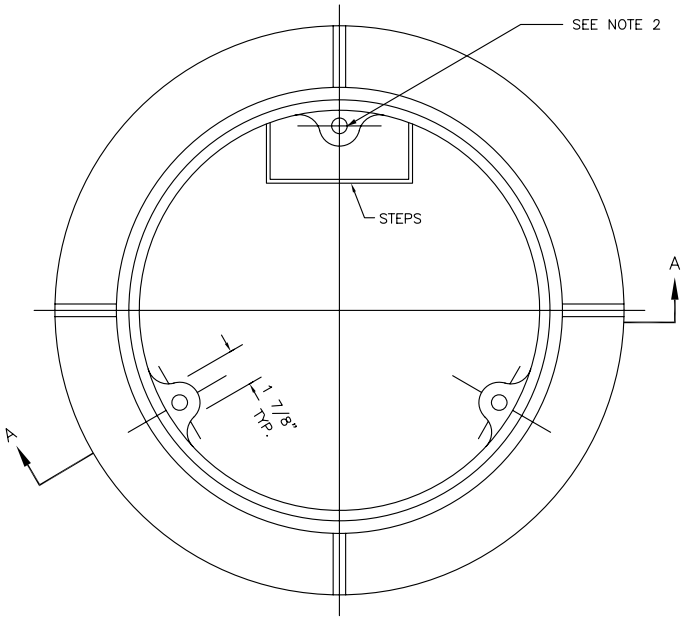
THRU–CURB INLET FRAME & GRATE W/ VERTICAL CURB INSTALLATION

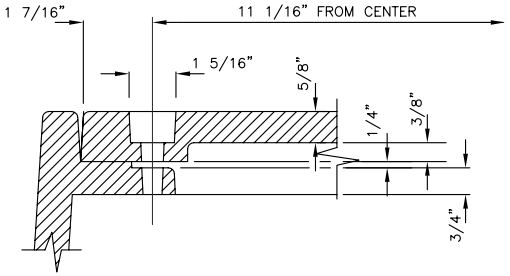
CITY OF Marysville WASHINGTON

STANDARD PLAN 4–080–018

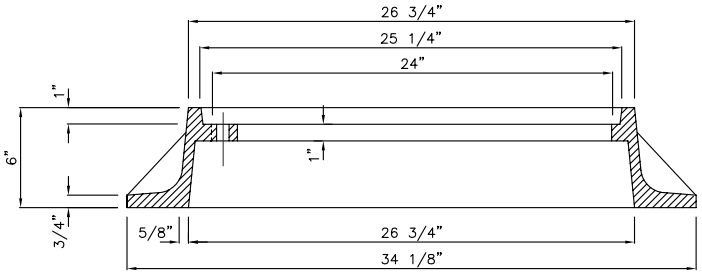
LAST REVISED 8/15/97



PLAN



BOLT-DOWN DETAIL



SECTION A-A

NOTES:

1. MATERIAL IS CAST IRON ASTM A48 CLASS 30.
2. DRILL AND TAP THREE 5/8"-11 NC HOLES THROUGH FRAME AT 120° AND 11 1/16" RADIUS.
3. SEE SEC. 4-080(D)
4. FOR INSTALLATION SEE 4-080-009

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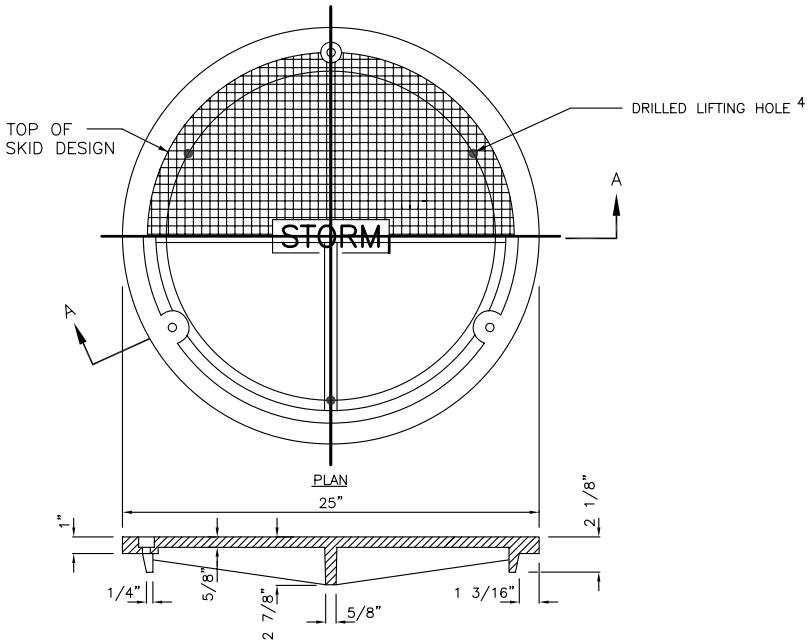
CITY OF Marysville WASHINGTON

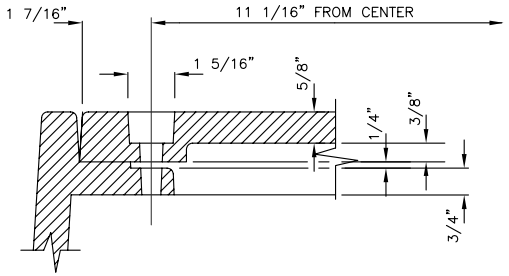
LOCKING MANHOLE FRAME DETAIL

STANDARD PLAN 4-080-022

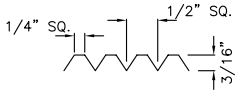
LAST REVISED 01/02/07



SECTION A–A



BOLT–DOWN DETAIL



COVER SKID DESIGN DETAIL

NOTES:

1. USE WITH THREE LOCKING BOLTS 5/8"–11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2" LONG. DRILL HOLES SPACED 120° AT 11 1/16" RADIUS.
2. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80–55–06
3. SEE SEC. 4–080(D).
4. DRILL THREE 1 INCH HOLES SPACED AT 120° AND 9 1/2" RADIUS.
5. FOR INSTALLATION SEE 4–080–009

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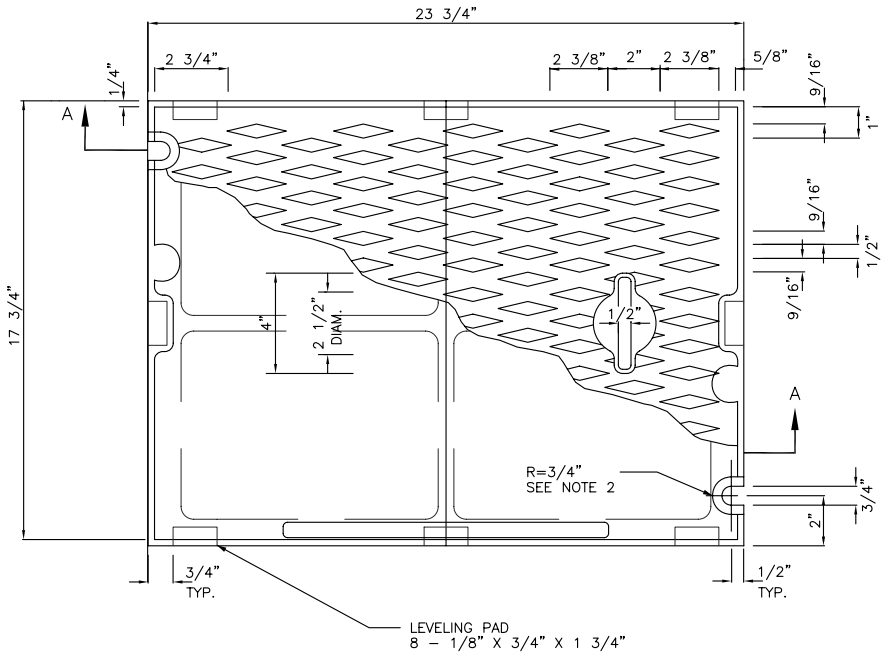
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

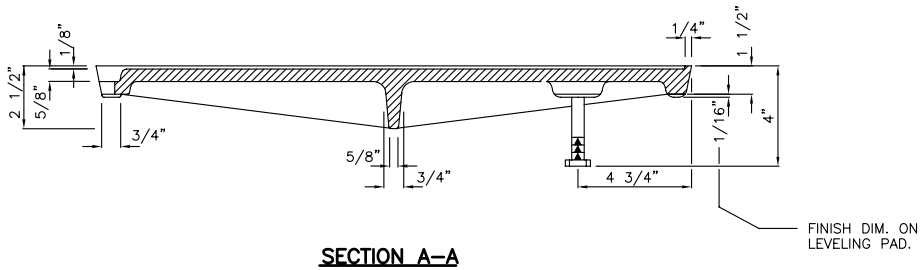
LOCKING MANHOLE COVER DETAIL

STANDARD PLAN 4–080–023

LAST REVISED 01/02/07



PLAN COVER



SECTION A-A

NOTES:

1. USE WITH FRAME (DWG. NO. 4-080-025) DRILLED AND TAPPED FOR LOCKING BOLTS.
2. USE WITH TWO LOCKING BOLTS 5/8"-11 NC STAINLESS STEEL TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS, 2" LONG.
3. MATERIAL IS CAST IRON PER ASTM A48 CLASS 30.
4. SEE SEC. 4-080(D).
5. RAISED WORDING "DRAIN" OR "STORM" ON ALL COVERS.

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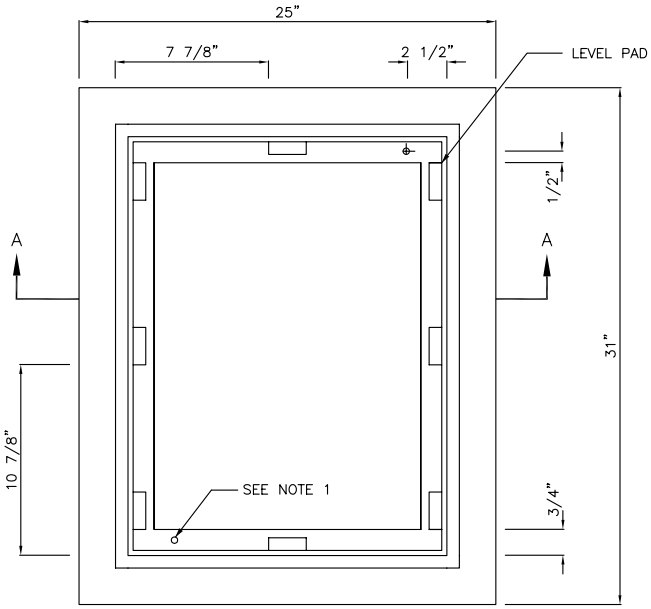
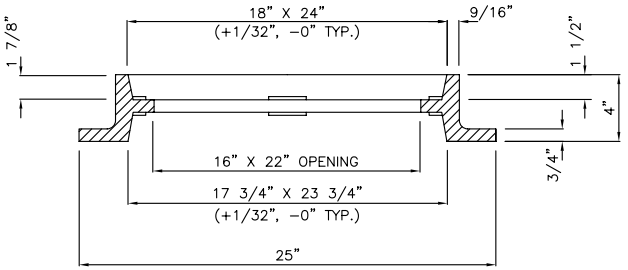
SOLID COVER

STANDARD PLAN 4-080-024

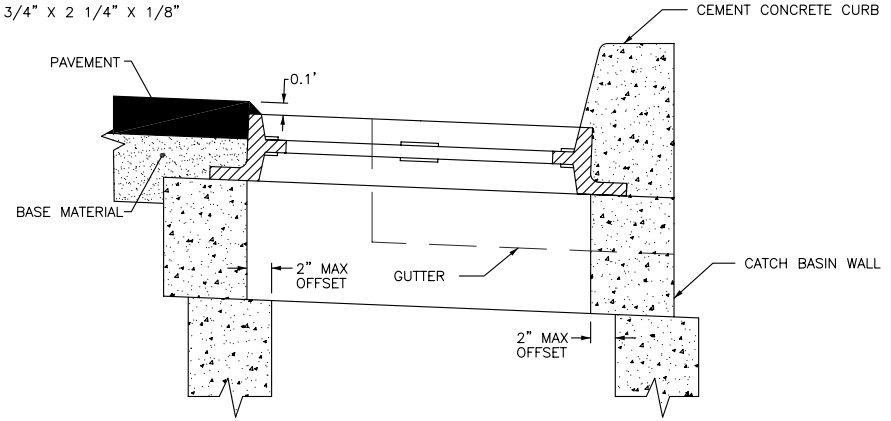
LAST REVISED 01/02/07



PLAN

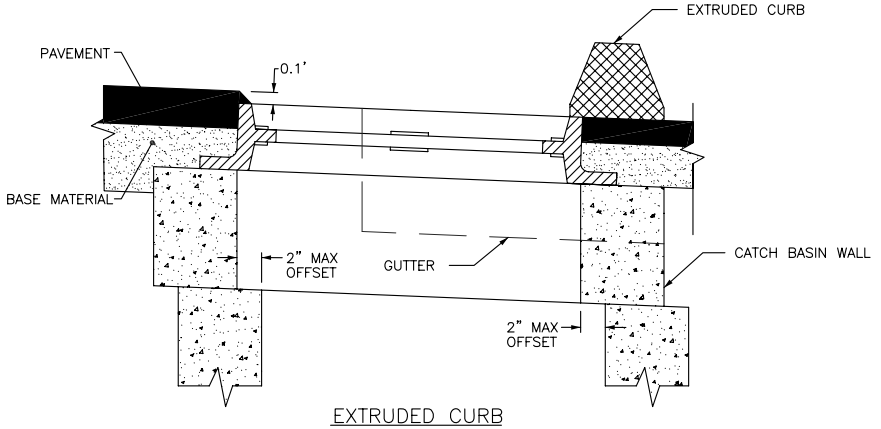


SECTION A–A



VERTICAL CURB

SEE NOTE 4



EXTRUDED CURB

SEE NOTE 4

NOTES:

1. DRILL AND TAP FOR, AND PROVIDE, TWO LOCKING BOLTS 5/8"–11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2" LONG WHEN USED WITH SOLID COVER (DWG. NO. 4–080–024).
2. FRAME MATERIAL IS CAST IRON PER ASTM A48 CLASS 30.
3. SET FRAME TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.
4. SEE SEC. 4–080(D).

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MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

STANDARD FRAME W/ VERTICAL OR EXTRUDED CURB INSTALLATION

LAST REVISED 01/02/07

STANDARD PLAN 4–080–025

CHAPTER 5

SANITARY SEWER DESIGN STANDARDS

April 1997
Revised May 2007

Prepared by:

City of Marysville
Public Works / Community Development

CHAPTER 5 - SANITARY SEWER & LIFT STATIONS

CHAPTER 5

SANITARY SEWER

5-000 General Considerations

5-010 General Sanitary sewerage refers to wastewater derived from domestic, commercial, and industrial pretreated waste to which storm, surface, and ground water are not intentionally admitted.

Any extension of or connection to Marysville's sanitary sewer system must be approved by the Engineering Department and must conform to the City of Marysville's Comprehensive Sanitary Sewer Plan.

Within the corporate City limits where a public sewer is available it must be used (M.M.C. 14.01.050).

The standards established by this chapter are intended to represent the **minimum** standards for the design and construction of sanitary sewer facilities. Greater or lesser requirements may be mandated by the City due to localized conditions. Washington State Department of Ecology's Criteria for Sewage Works Designs shall also be utilized by the city in its review and approval of system connections, extensions, and/or modifications as well as the most recent addition of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction.

Anyone who wishes to extend or connect to the City's sewer system should contact the Engineering Department for a sewer extension/connection fee estimate of the costs due the City for a sewer extension or connection, per M.M.C. 14.01.030 Application for Utility Service.

Prior to the release of any water meters, connection to the public sewer system must be completed and all connection/capital fees, recovery fees, main fees, inspection fees, and other applicable fees must be paid prior to any commercial or subdivision final approval.

Maintenance of the building or side sewer shall be the responsibility of the property owner to the main line. At the City's discretion maintenance and/or repair to side sewers within City right of way will be required to be completed by the city and billed to the property owner.

5-100 Design Standards The design of sanitary sewer systems shall be dependent on local site conditions. The design elements of sanitary sewer systems shall conform to minimum City Standards set forth herein and follow current design practice and in compliance with M.M.C. 14.03. All sewers shall be designed as a gravity sewer whenever physically and/or economically feasible or as outlined in the Comprehensive Sanitary Sewer Plan.

A. Detailed engineering plans shall be submitted for the City's review. The plans shall indicate the location, size, and the type of pipe material for the proposed sewers and the connection with existing sewers. These plans shall be separate from water plans.

B. Plans and profiles shall show:

- Location of streets, right-of-ways, easements, existing utilities, and sewers.
- Ground surface, pipe type, class and size, manhole stationing, invert and surface elevation at each manhole, and grade of sewer between adjacent manholes. All manholes shall be numbered on the plans and correspondingly numbered on the profile. Where there is any question of the sewer being sufficiently deep to serve any residence, the elevation and location of the basement floor, if basements are served, shall be plotted on the profile of the sewer which is to serve the house in question. The Developer shall state that all sewers are sufficiently deep to serve adjacent basements, except where otherwise noted on the plans.
- All known existing structures, both above and below ground.
- All utility easements, including County recording numbers.
- Details in scale drawings which clearly show special sewer joints and cross-sections, and sewer appurtenances such as manholes and related items and all other items as required by the City to clearly identify construction items, materials, and/or methods.

C. Construction of new sewer systems or extensions of existing systems will be allowed only if the existing receiving system is capable of supporting the added hydraulic load. Sewers shall be extended to the far property line(s) to facilitate future extensions of same.

D. Collection and interceptor sewers shall be designed and constructed for the ultimate development of the tributary areas.

E. Sewer systems shall be designed and constructed to achieve total containment of sanitary wastes and maximum exclusion of infiltration and inflow.

F. Computations and other data used for design of the sewer system shall be submitted to the City for approval.

G. The sewage facilities shall be constructed in conformance with the most recent edition of the Standard Specifications for Road, Bridge, and Municipal Construction, and current amendments thereto, State of Washington, revised as to form to make reference to Local Governments, and as modified by any special City requirements and standards contained herein.

H. Material and installation specifications shall contain appropriate requirements that have been established by the industry in its technical publications, such as ASTM, AWWA, WPCF, and APWA standards. Requirements shall be set forth in the specifications for the pipe and methods of bedding and backfilling so as not to damage the pipe or its joints, impede cleaning operations and future tapping, nor create excessive side fill pressure or ovalation of the pipe, nor impair flow capacity.

I. All sewers shall be designed to prevent damage from superimposed loads. Proper allowance for loads on the sewer because of the width and depth of trench should be made. When standard-strength sewer pipe is not sufficient, extra-strength pipe shall be used.

J. The Developer shall be required, upon completion of the work and prior to acceptance by the City, to furnish the City with a written guarantee covering all materials and workmanship for a period of two years after the date of final acceptance and the Developer shall make all necessary repairs during that period at his own expense, if such repairs are necessitated as the result of furnishing poor materials and/or workmanship. The Developer shall obtain warranties from the contractors, subcontractors and suppliers of material or equipment where such warranties are required, and shall deliver copies to the City upon completion of the work.

K. Sewer mains to be installed shall be of material noted below:
Gravity sewer:
Less than 5' cover over top of pipe: D.I.P. Class 52, or C-900: City engineer approval required.
5' – 18' cover over top of pipe: PVC, ASTM D 3034, SDR 35 or ASTM F 789.
Greater than 18' cover over top of pipe: D.I.P. Class 52, or C-900.

Use D.I.P. with anchors and hill holders on slopes of 15% percent or greater.
Forcemain:
Use D.I.P Class 52 for all depths.

5-105 Gravity Sewer Design Standards The design of any sewer extension/connection shall conform to City Standards, Department of Ecology's "Criteria for Sewage Works Design", and any applicable standards as set forth herein.

The layout of extensions shall provide for the future continuation of the existing system as determined by the City.

New gravity sewer systems shall be designed on the basis of an average daily per capita flow of sewage of not less than 100 gallons per day. See the following DOE table on Design Basis for Sewage. This figure is assumed to cover normal infiltration, but an additional allowance shall be made where conditions are unfavorable. Generally, laterals and submain sewers should be designed with a peaking factor of 4 to be applied to the average daily per capita flow rate. Therefore, laterals and submain sewers should be designed to carry, when running full, not less than 400 gallons daily per capita contributions of sewage. When deviations from the foregoing

per capita rates are used, a description of the procedure used for sewer design shall be submitted to the Department of Public Works for review and approval.

TABLE 2. DESIGN BASIS FOR NEW SEWAGE WORKS

Taken from: "Criteria for Sewage Work Design"
By: State of Washington Department of Ecology, October 1998

Discharge Facility	Design Units	Flow* (gpd)	BOD (lb./day)	SS (lb./day)	Flow Duration (hr)
Dwellings	per person	100	0.2	0.2	24
Schools with showers and cafeteria	per person	16	.04	.04	8
Schools without showers and with cafeteria	per person	10	.025	.025	8
Boarding schools	per person	75	0.2	0.2	16
Motels with 65 gal/person (rooms only)	per room	130	0.26	0.26	24
Trailer courts at 3 persons/trailer	per trailer	300	0.6	0.6	24
Restaurants	per seat	50	0.2	0.2	16
Interstate or through highway restaurants	per seat	180	0.7	0.7	16
Interstate rest areas	per person	5	0.01	0.01	24
Service stations	per vehicle services	10	0.01	0.01	16
Factories	per person per 8-hr shift	15-35	0.03-0.07	0.03-0.07	Operating Period
Shopping Centers	per 1,000 sq. ft. of ultimate floor space	200-300	0.01	0.01	12
Hospitals	per bed	300	0.6	0.6	24
Nursing homes	per bed	200	0.3	0.3	24
Homes for the aged	per bed	100	0.2	0.2	24
Doctor's office in medical center	per 1,000 sq. ft.	500	0.1	0.1	12
Laundromats, 9 to 12 machines	per machine	500	0.3	0.3	16
Community colleges	per student and facility	15	0.03	0.03	12
Swimming pools	per swimmer	10	0.001	0.001	12
Theaters, drive-in type	per car	5	0.01	0.01	4
Theaters, auditorium type	per seat	5	0.01	0.01	12
Picnic areas	per person	5	0.01	0.01	12
Resort camps, day & night, with limited plumbing	per campsite	50	0.05	0.05	24
Luxury camps with flush toilets	per campsite	100	0.1	0.1	24

*Includes normal infiltration

5-110 Main Line - Gravity

A. Size. Sewer mains shall be sized for the ultimate development of the tributary area. Nothing shall preclude the City from requiring the installation of a larger sized main if the City determines a larger size is needed to meet the requirements for future service. *See code on oversizing.

The minimum size for submains and mains shall be 8 inch inside diameter. The minimum size for a side service shall be 6 inches. See definitions in Chapter 1-025.

A 6-inch diameter main may be approved if it meets all of the following criteria as outlined in Section C1-4 of the Department of Ecology's "Criteria for Sewage Works Design" 1998 version.

The design is subject to all other design requirements as noted in this Chapter.

B. Material. Sewer main shall be PVC, ASTM D 3034, SDR 35 or ASTM F 789 with joints and rubber gaskets conforming to ASTM D 3212 and ASTM F 477.

If ductile iron pipe is shown on the plans, it shall conform to ANSI A21.51 or AWWA C151 and shall be cement mortar-lined, push-on joint, minimum thickness Class 50.

C. Depth. Gravity sewer shall have a minimum depth of 5 feet to provide gravity service to adjoining parcels, adequate head room within manholes for maintenance personnel and vertical clearance between water and sewer lines. Actual depth will be determined by slope, flow, velocity, and elevation of existing system.

D. All building sewer connections to the main shall be made with a tee connection. All new mains connecting to existing mains shall require the installation of a new manhole if the connection is not made at an existing manhole.

5-115 Connection to Existing System

A. At connection to existing system, all new sewer connections shall be physically plugged until all tests have been completed and the City approves the removal of the plug.

B. Connection of new pipe lines to existing manholes shall be accomplished by using provided knock-outs. Where knock-outs are not available, the manhole shall be core drilled for connection. The transition of connecting channels shall be constructed so as not to interrupt existing flow patterns.

C. Connection of a pipe line to a system where a manhole is not available shall be accomplished by setting a new manhole, unless otherwise approved by the City Engineer. The existing pipe shall not be cut into until approval is received from the City.

D. Connections to manholes requiring a drop shall follow the criteria as outlined in Section 5-140.

E. Connections where an existing stub out is not available or where a new building sewer is the same size as the existing main shall be accomplished by the installation of a new manhole, unless otherwise approved by the City Engineer.

F. Taps shall not be allowed to protrude more than 1 inch into the existing main. A City inspector shall be notified 48 hours prior to any tap of a City sewer. A City Inspector shall be present to witness the tap.

G. Couplings and O-ring adapters utilized for joining pipes of dissimilar materials such as cast iron soil pipe to ductile iron pipe or cast iron to vitrified clay, and/or for making secure watertight connections between pipes of different nominal sizes such as a 4 inch building sewer to a 6 inch lateral, shall be flexible elastomeric polyvinyl chloride (PVC) as manufactured by Fernco, Inc. or Engineer approved equal. Couplings shall be supplied with 316 stainless steel band clamps, fasteners and shear rings as applicable to the sizes and types of pipes to be connected together. Couplings and adapters shall conform to applicable parts.

5-120 Manholes Precast manholes shall meet the requirements of ASTM C 478 with either a precast base or a cast-in-place base made from 3000 psi structural concrete. Manholes shall be Type 1, 48-inch diameter minimum for depths 8 feet and over and type 3, 48-inch diameter for depths under 8 feet. See Standard Plans 5-120-001 through 5-120-004. The minimum clear opening in the manhole frame shall be 24 inches. Joints shall be rubber gasketed conforming to ASTM C 443 and shall be grouted from the inside and outside. Lift holes shall be grouted

from the outside and inside of the manhole. All inside grouting shall be brushed finished. The manholes shall be manufactured with exterior water proofing to within 3-inches from all joints. Following manhole installation, all interior and exterior joints shall be grouted. The exterior joints shall also receive a water proof coating that overlaps the manufacturer's water proofing by a minimum of 1-inch. (See SP 5-120-005 for locations requiring manholes to be water-proofed.)

Eccentric manhole cone shall be offset so as not to be located in the tire track of a traveled lane.

Manhole frames and covers shall be cast iron casting marked "Sewer" conforming to the requirements of ASTM A-30, Class 25, and shall be free of porosity, shrink cavities, cold shuts or cracks, or any surface defects which would impair serviceability. Repairs of defects by welding or by the use of smooth-on or similar material will not be permitted. Manhole rings and covers shall be machine-finished or ground-on seating surfaces so as to assure non-rocking fit in any position and interchangeability. Manholes located in areas subject to inflow shall be equipped with a PRECO sewer guard watertight manhole insert or approved equal. Manhole frames and covers shall be installed on a minimum of eight inches (8") of standard radial manhole adjustment bricks.

Where lock-type castings are called for, the casting device shall be such that the cover may be readily released from the ring and all moveable parts shall be made of non-corrosive materials and otherwise arranged to avoid possible binding.

All castings shall be coated with bituminous coating prior to delivery to the job site.

Safety steps shall be fabricated of polypropylene conforming to an ASTM D-4101 specification, injection molded around a 1/2-inch ASTM A-615 grade 60 steel reinforcing bar with anti-slip tread. Steps shall project uniformly from the inside wall of the manhole. Steps shall be installed to form a continuous vertical ladder with rungs equally spaced on 12-inch centers.

Gravity sewers shall be designed with straight alignment between manholes.

Manholes shall be provided at a maximum of 400 foot intervals for 8 inch to 15 inch sewers, 500 foot intervals for 18 inch to 24 inch sewers, at intersections, and at changes in direction, grade, or pipe size. Greater spacing may be permitted in larger sewers.

Minimum slope through the manhole shall be 1/10th of one foot from invert in to invert out.

Manhole sizing shall be determined by the following criteria:

A. 48" Manhole

1. 2 connecting pipes, 8 inch to 12 inch diameter
2. 3 connecting pipes, 8 inch to 10 inch diameter, perpendicular
3. 4 connecting pipes, 8 inch diameter, perpendicular

B. 54" Manhole

1. 2 incoming pipes, 8 inch to 12 inch with less than 45° deflection
2. 3 connecting pipes, 10 inch to 12 inch diameter, perpendicular
3. 4 connecting pipes, 10 inch to 12 inch diameter, perpendicular

C. 72" Manhole

1. 2 incoming pipes, 15 inch to 18 inch diameter with less than 45° deflection
2. 3 connecting pipes, 15 inch diameter, perpendicular
3. 4 connecting pipes, 15 inch diameter, perpendicular

In the above criteria "deflection" refers to the angle between any 2 pipe channels in the manhole. Minimum deflection between incoming and outgoing pipes is 80 degrees.

For other pipe configurations, the size of the manhole shall be approved by the City.

The above configurations will provide adequate shelves and room for maintenance and performing T.V. inspections. Minimum shelf width shall be 15" from the edge of channel to the manhole wall at the widest point.

5-125 Slope All sewers shall be designed and constructed to give mean velocities, when flowing full, of not less than 2.0 feet per second based on Mannings formula using an "n" value of 0.013. Use of other practical "n" values may be permitted by the City if deemed justifiable on the

basis of research or field data submitted. The following minimum slopes should be provided; however, slopes greater than these are desirable.

Sewer Size (Inches)	Minimum % Slope % (Feet per 100')
6	1.00
8	0.40
10	0.28
12	0.22
14	0.17
15	0.15
16	0.14
18	0.12
21	0.10
24	0.08
27	0.07
30	0.06
36	0.05

Under special conditions, slopes slightly less than those required by the 2.0 feet per second velocity may be permitted by the City Engineer. Such decreased slopes will only be considered where the depth of flow will be 0.3 of the diameter or greater for the design average flow. Whenever such decreased slopes are proposed, the design engineer shall furnish with the plans his computations of the depths of flow in such pipes at minimum, average, and daily or hourly rates of flow. Larger pipe size shall not be allowed to achieve lesser slopes.

Sewers shall be laid with uniform (constant) slope between manholes.

5-130 Increasing Size Manholes shall be provided where pipe size changes occur.

Where a smaller sewer joins a larger one, the invert of the larger sewer should be lowered sufficiently to maintain the same energy gradient. An approximate method for securing these results is to place the 0.8 depth point of both sewers at the same elevation.

5-135 High Velocity Protection Where velocities greater than 15 feet per second are expected, special provisions such as thrust blocking and piping materials such as ductile iron shall be made to protect against displacement by erosion and shock.

5-140 Drops Straight grades between invert out of last manhole and connection to existing are preferred over drops whenever possible. Care must be taken when designing steep grades or sweeps so as not to create a situation of excessive velocity or excavation. Grade changes associated with "sweeps" shall not be allowed unless otherwise approved by the City Engineer.

A drop connection shall be provided for a sewer entering a manhole at an elevation of 24 inches or more above the manhole invert. Where the difference in elevation between the incoming sewer and the manhole invert is less than 24 inches, the invert shall have a fillet to prevent solids deposition.

An inside drop connection shall be constructed per Standard Plan 5-140-001.

Outside drop structures shall be constructed per Standard Plan 5-140-002.

5-145 Cleanouts Cleanouts are not an acceptable substitute for manholes, however, they may be used in lieu of manholes at the end of 6 or 8 inch diameter lines of not more than 150 feet in length. This does not include a 6-inch building sewer to serve one or two single family dwellings. Location of cleanout for building sewer is governed per Standard Plan 5-150-001.

All cleanouts in City right-of-way or easements shall be extended to grade and a 3-foot square by 4-inch concrete pad shall be installed around all cleanouts that are not in a pavement area. See Standard Plan 5-145-001.

5-150 Building Sewer A building or side sewer refers to the extension from a building sewer beginning two feet outside the outer foundation wall at the structure to the sanitary sewer main. Building sewers from the main to the right-of-way line shall be minimum 6-inch diameter. Maintenance of the sewer from the mainline to the building is the responsibility of the property owner. Prior to connection of a building sewer to the public sewer a connection permit must be obtained from the City. Materials and design criteria for a building sewer are covered by the EDDS and/or City of Marysville hand outs. Inspection of the building sewer is the responsibility of the Public Works/Building Department.

5-155 Marking Side Sewers The location of all side sewers shall be marked with a twelve gauge wire and 2" x 4" wood "marker" at the termination of the stub. The "marker" shall extend from the trench to above finished grade. Above the ground surface, it shall be painted "green" with " sewer" and the depth, in feet, stenciled in white letters 2" high. See Standard Plan 5-150-003.

5-160 Sanitary Sewer/Water Main Crossings

See Chapter 2, Section 2-170 for requirements regarding sewer and water separation.

5-165 Preconstruction

A preconstruction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction.

5-170 Staking All surveying and staking shall be performed by an engineering or surveying firm capable of performing such work. The engineer or surveyor directing such work shall be licensed as a Professional Engineer or Professional Land Surveyor by the State of Washington.

The minimum staking of sewer lines shall be as directed by the City Engineer or as follows:

A. Stake location of mainline pipe and laterals every 50 feet with cut or fill to invert of pipe.

B. Stake location of all manholes for alignment and grade with cut or fill to rim and invert of pipes.

C. Front lot corners shall be staked prior to construction for side sewer tee location.

5-175 Trench Excavation See Chapter 2, Section 2-190 for requirements regarding trench excavation. See Standard Plans 5-175-001 through 5-175-003.

5-180 Backfilling See Chapter 2, Section 2-240 for requirements regarding backfilling. See Standard Plans 5-175-001 through 5-175-003 and 5-180-001.

5-185 Dewatering of Trench Where water is encountered in the trench, it shall be removed before pipe-laying operations and the trench so maintained until the ends of the pipe are sealed and

provisions are made to prevent floating of the pipe. Trench water or other deleterious materials shall not be allowed to enter the pipe at any time. Dewatering is required to one(1) foot below the invert of the pipe.

The developer/contractor shall furnish, install, and operate all necessary dewatering wells and equipment to keep the trench free from water during construction, and shall dewater and dispose of the water so as not to cause injury to public or private property or nuisance to the public. Sufficient pumping equipment in good working condition shall be available at all times for all emergencies, including power outage, and shall have available at all times competent workers for the operation of the pumping equipment.

5-190 Street Patching and Restoration See Chapter 2, Sections 2-260 and 2-270 for requirements regarding street patching and trench restoration.

5-195 Testing Gravity Sewers Prior to acceptance and approval of construction, the following tests shall apply to each type of construction.

A. Gravity Sewer

1. Prior to acceptance of the project, the gravity sewer pipe shall be subject to a low pressure air test per WSDOT Standards. The Contractor shall furnish all equipment and personnel for conducting the test under the observation of the City inspector. The testing equipment shall be subject to the approval of the City.

   The Contractor shall make an air test for his own purposes prior to notifying the City to witness the test. The acceptance air test shall be made after trench is backfilled and compacted and the roadway section is completed to subgrade.

   All wyes, tees, and end of side sewer stubs shall be plugged with flexible joint caps, or acceptable alternates, securely fastened to withstand the internal test pressures. Such plugs or caps shall be readily removable and their removal shall provide a socket suitable for making a flexible jointed lateral connection or extension.

Immediately following the pipe cleaning, the pipe installation shall be tested with low-pressure air.

2. Testing of the sewer main shall include a television inspection by the Contractor. Television inspection shall be done after the air test has passed and before the roadway is paved. Immediately prior to a television inspection, enough water shall be run down the line so it comes out the lower manhole. A copy of the video tape and written report shall be submitted to the City. Acceptance of the line will be made after the tape has been reviewed and approved by the Inspector. Any tap to an existing system needs to be televised as well. No ponding within the sanitary sewer line!

3. A water test of all manholes may also be required. The water test shall be made by the Contractor first by filling the manhole up with water and letting it sit for 24 hours to allow the water to saturate the concrete. After 24 hours the manhole shall be filled to the top of the cone. The water cannot drop more than 0.05 gallons in 15 minutes per foot of head above invert to pass. Upon completion of the water test, the water shall be pumped out of the manhole and not allowed to be released to the system.

4. A mandrel test in accordance with Section 7-17.3(2)G of the Standard Specifications shall be required on all sewers except laterals (side sewers).

5-200 Sewage Lift Stations This chapter covers the general requirements for design and construction of sewage pump stations.

Plans, specifications, and peak sewage flow calculations shall be submitted to the City for approval. Pump station peak sewage design flow rates shall meet the standards in the latest edition of the "Recommended Standards for Sewage Works" Great Lakes - Upper Mississippi River Board of State Sanitary Engineers (10 state standards). Submitted drawings shall conform to the requirements of the City of Marysville and the State of Washington Department of Ecology, Criteria for Sewage Works Design (CSWD). Lift station designs shall be prepared and sealed by a professional engineer.

All sewage pump station designs shall follow the minimum guidelines as specified in Chapter 3 of the CSWD. All sewage pump stations shall be the wet well-dry well type, with long shaft pumps or pedestal mounted pumps. Pedestal mounted pumps shall be vertically mounted with an elevated motor drive coupled directly to the pumps through a flexible coupling. Long shaft pumps shall have the pumps located at the bottom of the dry well and the motor drives housed in an above ground control building. Large pump stations are stations with over 1.0 MGD flow and as determined by the City. Suction lift, or pneumatic ejector are not allowed. Screw type and submersible lift stations will be considered.

5-205 Location and Flood Protection Sewage pump stations should be located as far as practical from present or proposed built-up residential areas. The site is to be accessible by an all-weather road. Noise control, odor control, and station architectural design should be taken into consideration. Sites for stations shall be of sufficient size for future expansion or addition, if applicable.

The station's operational components shall be located at an elevation that is not subject to the 100-year flood stage or shall otherwise be adequately protected against the 100-year flood stage damage. The stations shall be designed to remain fully operational during the 100-year flood event.

All lift stations will be designed to serve the appropriate tributary basin as identified in the Marysville "Comprehensive Sanitary Sewer Plan".

5-210 Design Standards The design of any lift station shall conform to City standards, Department of Ecology's "Criteria of Sewage Works Design" and applicable standards as set forth herein. In addition, the plans shall include the following:

1. An overall site drawing of the lift station showing the location of all components including elevations;

2. Electrical service size, voltage, and enclosure type and location in relation to the pump station;

3. A list of specific materials used including quantity description and manufacturer name;

4. A schematic and line diagram of the service and motor control center and lift station;

5. The electrical and controls systems shall be designed to meet state and local electrical code requirements;

6. The plans shall show all applicable telemetry installation with schematics;

7. An operation and maintenance manual from the lift station contractor shall be supplied.

8. A lift station emergency pumper connection/by-pass connection shall be installed per Standard Plan 5-210-001.

9. Pump operation, alarms, and electrical inspection of all lift stations is required.

5-215 Pumping Rate and Number of Units

At least two pump units shall be provided, each capable of handling the expected maximum flow. (Peak design flow.)

Where three or more units are provided, they shall be designed to fit actual flow conditions and must be of such capacity that with any one unit out of service, the remaining units will have the capacity to handle the maximum sewage flow.

When the station is expected to operate at a flow rate less than 0.5 times the average design flow for an extended period of time, the design shall address measures taken to prevent septicity due to long holding times in the wet well.

Consideration should be given to the use of variable-speed pumps, particularly when the pump station delivers flow directly to a treatment plant, so that sewage will be delivered at approximately the same rate as it is received at the pump station.

5-220 Grit and Clogging Protection Where it may be necessary to pump sewage prior to grit removal, the design of the wet well should receive special attention, and the discharge piping should be designed to prevent grit settling in pump discharge lines of pumps not operating.

For large pump stations handling raw sewage, consideration should be given to installation of readily accessible bar racks with clear openings not exceeding 2-1/2 inches, unless pneumatic ejectors are used or special devices are installed to protect the pumps from clogging or damage. Where the size of the installation warrants, a mechanically cleaned bar screen with grinder or comminution device is recommended. Where screens are located below ground, convenient facilities must be provided for handling screenings. For the larger or deeper stations, duplicate protection units, each sized at full capacity, are preferred.

5-225 Pumping Units

A. Type of Pumps

(See specific type of pump station.)

B. Pump Openings

Pumps shall be capable of passing spheres of at least 3 inches in diameter. Pump suction and discharge openings shall be at least 4 inches in diameter.

C. Priming

Pumps shall be so placed that under normal operating conditions they will operate under a positive suction head (except for suction lift pumps).

D. Intake

Each pump should have an individual intake. Wet well design should be such as to avoid turbulence/cavitation near the intake.

E. Operation Controls

Control float cages should be so located as not to by affected by the flows entering the wet well or by the suction of the pumps. Air-operated pneumatic controls are preferred for all sewage pump stations. Provisions should be made to automatically alternate the pumps in use. Pump stations with motors and/or controls below grade should be equipped with a secure external disconnect switch.

5-230 Flow Measurement Suitable devices for measuring sewage flow should be provided at pumping stations with flow capacity greater than 1.0 million gallons per day (mgd).

5-235 Bypasses/Storage Provision may be made for controlled bypasses and/or storage, if necessary to avoid excessive property or equipment damage. The controlled bypass shall be manually operated valve or plate covering the bypass discharge, and shall act as a pump connection port.

Where overflows affect public water supplies, shellfish production, or water used for culinary or food-processing purpose, a storage-detention basin, or tank, shall be provided that has a minimum 2 hours of detention capacity at the anticipated overflow rate. Storage-detention tanks, or basins, shall be designed to drain to the station wet well.

5-240 Alarm System An alarm system shall be provided for all pumping stations. Permanent lift stations shall have a telemetry alarm to 24-hour monitoring stations or telephone alarms to duty personnel. When telemetry is not used, an audio-visual device should be installed at the station for external observation.

Alarms for high wet well, low wet well, and power failure should be provided, as a minimum, for all pump stations. For larger stations, alarms signalizing pumps and other component failures or malfunctions shall also be provided. See Sections 5-252 and 5-254.

A backup power supply, such as a battery pack with automatic switchover features, should be provided for the alarm system, such that a failure of the primary power source will not disable the alarm system. Test circuits should be provided to enable the alarm system to be tested and verified as in good working order.

5-245 Materials Considerations

In the selection of materials, consideration should be given to the presence of hydrogen sulfide and other corrosive gases, greases, oils, and other constituents frequently present in sewage. With the exception of the pumps, pipe and wiring, metal materials located in areas subject to such conditions shall be stainless steel (guide rails, fasteners, cable, etc.)

5-250 Electrical Equipment

Electrical systems and components (e.g., motors, light, cables, conduits, switchboxes, control circuits) in enclosed or partially enclosed spaces where flammable mixtures occasionally may be present (including raw sewage wet wells) shall comply with the National Electrical Code requirements for Class I Division 1 locations.

5-251 Electrical & Telemetry Controls

5-252 Electrical Control Panel. The electrical control panel shall be located in a control building, on a concrete housekeeping pad, or seven or more feet above the dry well floor and shall be provided with the minimum following items:

- Wet well level sensor system
- Hand-off-automatic selector switch, each pump
- Lag, lead and automatic pump selector switch
- Elapse time indicator, each pump
- Ammeter, each pump
- Run indicator lights, each pump
- Pilot light indicator for each and every alarm, automatic shut-down and running condition
- Alarm reset and test button
- Outside mounted red alarm light
- 110 volt convenience outlet
- Control power available indicator light
- Wet well level gauge calibrated in feet
- Alarm horn

5-253 Service Wiring. Underground wiring shall be provided between the pump station and nearest power pole.

5-254 Telemetry. Each lift station shall include a complete telemetering system which shall indicate the minimum following conditions at the City of Marysville Public Works Building:

- Telephone line failure
- Commercial power failure
- High-low wet well
- Pump failure (check valve actuated)
- Pump running
- Water in dry well
- Smoke in dry well/control building
- Generator running (if required)
- Generator failure (if required)
- Station intrusion

The telemetering equipment shall match the City's existing telemetering equipment.

5-255 Telemetry Annunciator Panel. Provide an annunciator panel which shall indicate the following:

Pump No. 1 running - G & T
Pump No. 2 running - G & T
Pump No. 1 failure - R, A & T
Pump No. 2 failure - R, A & T
Pump No. 1 bearing overheat - R, A, S & L
Pump No. 2 bearing overheat - R, A, S & L
Motor No. 1 bearing/stator overheat - R, A, S & L
Motor No. 2 bearing/stator overheat - R, A, S & L
Motor No. 1 overload - R, A, S & L
Motor No. 2 overload - R, A, S & L
Phase failure - R, A, S & L
Commercial power failure - R, A & T
Over Voltage - R, A, S & T
Level sensor failure - R & A
Smoke in control building/dry well - R, A & T
Low/High wet well - R, A & T

When a generator set is provided the following additional indicator shall be provided:

Generator running - G & T

Generator failure - R, A & T

Generator failure over crank - R & A

Generator failure over speed - R & A

Generator failure high temperature - R & A

Generator failure low oil pressure - R & A

Low battery charge - R & A

Low level fuel storage tank - R & A

High/Low level dry tank - R, A & T

Generator call to exercise - Y

Generator call to stop - Y

Generator start time delay - Y

Generator stop delay cool down - Y

Code letters for the above:

R = Red light

Y = Yellow light

G = Green light

A = Alarm, with a 0 to 120 second time delay

S = Shutdown (control function)

L = Lockout (control function)

T = Telemeter indication

5-256 Lighting Adequate interior and exterior lighting for the entire pump station shall be provided. Explosion proof is generally required.

5-260 Water Supply There shall be no physical connection between any potable water supply and a sewage pumping station which under any conditions might cause contamination of the potable water supply. Potable water supply brought to the station should comply with conditions stipulated in the D.O.H. Criteria for Accepted Cross Connection Control Assemblies. A minimum ¾ inch water line with a reduced pressure backflow assembly with protection shall be installed near the pump station for station cleaning purposes.

5-265 Pump and Motor Removal Provisions shall be made to facilitate removing pumps, motors, and other equipment, without interruption of system service.

5-270 Access Suitable and safe means of access should be provided to equipment requiring inspection or maintenance. Stairways and ladders shall satisfy all OSHA and WISHA requirements. All permanent lift stations shall be fenced to discourage the entrance of unauthorized persons and animals.

Hatches shall be provided directly over each pump for ease of pump and motor removal. All hatches shall be aluminum or stainless steel, spring operated with stainless steel hardware. Wet well and dry well access hatches shall be fitted with a recessed hasp and padlock.

5-275 Valves and Piping Shutoff valves shall be placed on suction and discharge lines of each pump (as applicable) for normal pump isolation. A check valve shall be placed on each discharge line, between the shutoff valve and the pump. Pump suction and discharge piping should not be less than 4 inches in diameter except where design of special equipment allows. The velocity in the suction line should not exceed 6 feet per second and, in the discharge piping, 8 feet per second.

A. Valves 4 to 12 inches shall be Waterous Series 500 plug valves with an epoxy costing to resist corrosion. A valve shall be located at a maximum of every 500 feet along a force main. Valve may be installed in conjunction with required pigging ports.

B. Check Valves. Check valves used on lift stations shall have adjustable tension levers and spring. It shall have a working pressure of 150 psi. Valves shall be designed for use with corrosive fluids. A check valve shall be installed in a valve vault located adjacent to the lift station. Check valves shall conform to AWWA standards, such as Prenselar List 340, or approved equal. Valves shall be mounted horizontally where space permits.

C. Valve Box Lids. Valve box lids may be used for isolation valves on a force main. Valve box lids shall be specified to be marked with "SEWER" so they can quickly be distinguished from valves in the water system.

D. All station piping larger than 2-inches shall be flanged ductile iron. Flexible coupling shall be used on all pump discharges. Other couplings shall be used to provide flexibility in re-assembling piping.

5-280 Pigging Ports A pipeline pig is a projectile that is forced through the inside of a pipe to clean pressure pipelines. A pigging port is used as a point to send or retrieve the pig.

Pigging ports may be required:

A. At every change in pipeline size

B. At bends in the line

C. No farther than every 1000 feet

These locations are subject to review and approval by the City.

5-285 Ventilation Ventilation shall be provided for all pump stations during all periods when the station is manned. Where the pump is below ground, mechanical ventilation is required and should be arranged so as to independently ventilate the dry well. If screens or mechanical equipment, which might require periodic maintenance and inspection, are located in the wet well, then it should also be mechanically ventilated. There should be no interconnection between the wet well and the dry well ventilation systems. In pits over 15 feet deep, multiple inlets and outlets are desirable. Dampers should not be used on exhaust or fresh air ducts and should be avoided to prevent clogging. Switches for operation of ventilation equipment should be marked and conveniently located above grade and near pump station entrance. Consideration should be given also to automatic controls where intermittent operation is used. The fan wheel should be fabricated from nonsparking material. In climates where excessive moisture or low temperature is a problem, consideration should be given to installation of automatic heating and/or dehumidifying equipment. Where heat buildup from pump motors may be a problem, consideration should be given to automatic ventilation to dissipate motor heat. Corrosive resistant metal pipe is required for all vent piping.

5-300 Wet Well - Dry Well Stations

5-305 Type of Pumps

Sewage pumps shall be heavy duty vertical non-clog, centrificial and designed specifically for municipal unscreened raw sewage application.

- Acceptable pump manufacturers are as follows: Flygt, Fairbanks Morse, Peabody Barns, Worthington, Aurora, Cornell, or Wemco.
- Long shaft pumps shall have the drive motor connected to the pump with vertical shafts, universal joints, and bearings.
- Each pump motor shall have both bearing and stator heat sensors with alarms.
- The maximum pump speed shall be 1,160 rpm. Pumps shall have stuffing box and packing type shaft seal.
- The pump motor shall be non-overloading from shut-off to pump runout.
- An easy method of backflushing each pump shall be provided.

5-310 Separation Wet and dry wells, including their superstructures, should be completely separated.

Where continuity of pump station operation is necessary, consideration should be given to dividing the wet well into two sections, properly interconnected, to facilitate repairs and cleaning.

5-315 Wet Well Size The effective capacity of the wet well should provide a holding period not to exceed 10 minutes for the design average flow.

5-320 Floor Slope The wet well floor should have a minimum slope of 1-to-1 to the hopper bottom. The horizontal area of the hopper bottom should be no greater than necessary for proper installation and function of the inlet.

5-325 Ventilation Wet well ventilation may be either continuous or intermittent. Ventilation, if continuous, should provide at least 12 complete air changes per hour; if intermittent, at least 30 complete air changes per hour. Such ventilation should be accomplished by introduction of fresh air into the wet well by mechanical means.

Dry well ventilation may be either continuous or intermittent. Ventilation, if continuous, should provide at least 6 complete air changes per hour; if intermittent, at least 30 complete air changes per hour.

5-330 Dry Well Dewatering A separate sump pump should be provided in the dry wells to remove leakage or drainage within the discharge above the overflow level of the wet well. Water ejectors connected to a potable water supply will not be approved. All floor and walkway surface should have an adequate slope to a point of drainage. Dry well sump pump shall be submersible, 2-inch discharge, minimum 1 hp and able to handle 3/4 solids at 100 gpm at a 30 foot head.

5-335 Dry Well Emergency Equipment. Emergency battery operated lights, space heater, fire extinguisher, sump pump, pump motor disconnect switch, and electrical controls shall be installed in the dry well. All electrical devices shall be located a minimum of 7 feet above the dry well floor for protection against flooding.

5-340 Miscellaneous.

- The entire dry well floor shall be covered with fiberglass grating installed 4 inches above the bottom of the dry well floor.
- The minimum clear space around the pumps shall be 2 feet.
- All railings, hatches, stairs, cat walks, and ladders shall comply with OSHA requirements.
- A baffle shall be placed in front of the inlet pipe to eliminate air entering the pump intakes.
- The inlet pipe shall be fitted with a sluice gate.
- An explosion proof light and access ladder shall be installed in the wet well.
- All wet wells shall be painted inside with Tnemec epoxy or equal.

5-400 Suction Lift Stations

5-405 Priming Suction-lift pumps should be of the self-priming type, as demonstrated by a reliable record of satisfactory operation. The maximum recommended lift for a suction lift pump station is 15 feet, using pumps of 200 gallons per minute (gpm) capacity or less.

5-410 Capacity The capacity of suction lift pump stations should be limited by the net positive suction head and specific speed requirements, as stated on the manufacturer's pump curve for the most severe operating conditions.

5-415 Air Relief

A. Air Relief Lines

All suction lift pumps should be provided with an air relief line on the pump discharge piping. This line should be located at the maximum elevation between the pump discharge flange and the discharge check valve to ensure the maximum bleed-off of entrapped air. Air relief piping should have a minimum diameter of 1-1/4 inches. A separate air relief line shall be provided for each pump discharge. The air relief line should terminate in the wet well or suitable sump and be open to the atmosphere.

B. Air Relief Valves

Air relief valves should be provided in air relief lines on pumps not discharging to gravity sewer collection systems. The air relief valve should be located as close as practical to the discharge side of the pump.

C. Unvalved Air Relief

Unvalved air relief piping should be provided on all pumps discharging to varying head force mains, except that an air relief valve may be used where actual operating test data can be submitted that indicate that a particular air relief valve will fail in the open position under varying head conditions. NOTE: Unvalved air relief piping will materially affect pump efficiency and capacity, and should be considered by the designing engineer.

5-420 Pump Location Suction lift pumps should not be located within the wet well.

5-425 Access to Wet Well Access to the wet well should not be through the dry well, and the dry well should have a gastight seal when mounted directly above the wet well.

5-500 Submersible Pump Stations. See Standard Plans 5-500-001 and 5-500-002.

Submersible sewage pump stations shall meet all of the requirements where applicable for wet well/dry well pump stations except as follows:

- The pump and motor shall be designed and built to operate continuously while the motor casing is fully exposed above the sewage level.
- Pumps shall be rail mounted with a quick connect discharge connection.
- The pump shall be easily removable for inspection or service, requiring no bolts, nuts, or other fastening to be disconnected.
- Each pump shall have both thermal and moisture sensors with automatic alarms.
- A valve vault shall be provided outside of the wet well and shall house all check valves and shut-off valves.
- A continuous running fan shall be provided for the wet well and the fan and motor shall be located in the valve vault.
- Each pump shall be fitted with a galvanized pump lifting chain.
- An access hatch shall be placed directly over each pump for pump liftout.
- An access hatch shall be located directly over the wet well ladder.
- The pump power cables and control cables shall terminate in the control panel in the control building, if the control building is less than 20 feet from the wet well; otherwise the cables shall terminate in a NEMA 4 junction box located in a hand hole just outside of the wet well.
- A gantry crane or tripod with chain hoist shall be provided with each pump station.
- A control building shall be located near the wet well and constructed above ground or a housekeeping pad shall be provided for the electrical controls.

5-505 Type of Pumps

Pumps shall be heavy duty submersible non-clog centrifugal and designed specifically for municipal unscreened raw sewage application. Acceptable pump manufacturers are as follows: Hydro-matic, Worthington, Cornell, and Pacific Pump Company.

5-510 Pump Removal Submersible pumps shall be readily removable and replaceable without dewatering the wet well or requiring personnel to enter the wet well. Continuity of operation and other units should be maintained.

A hoist and accessories for removing the pumps from the wet well shall be provided.

5-515 Controls The control panel shall be located outside the wet well and suitably protected from weather, humidity, and vandalism.

5-520 Valves All control valves on the discharge line for each pump shall be placed in a convenient location outside the wet well in a separate vault and be suitably protected from weather and vandalism. Outside valve covers shall not be allowed.

5-525 Submergence Positive provision, such as backup controls, shall be made to assure submergence of the pumping units.

5-600 Reliability

5-605 Objective The objective of reliability is to prevent the discharge of raw or partially treated sewage to any waters and to protect public health by preventing backup of sewage and subsequent discharge to basements, streets, and other public and private property.

5-610 Backup Units A minimum of two pumps shall be provided in each station in accordance with Section 1-110.

5-615 Power Outages An emergency power source shall be provided to ensure continuous operability unless the experience has shown the frequency and duration of outage to lift station is temporary and to be low and the pump station and/or sewers provide storage sufficient for expected interruptions in power service. A temporary lift station is defined as a lift station which is anticipated to be in operation for less than five years.

5-620 Emergency Power Supply

5-621 General Provision of an emergency power supply for pumping stations shall be made, and may be accomplished by connection of the station to at least two independent public utility sources, or by provision of in-place internal combustion engine equipment that will generate electrical or mechanical energy.

Emergency power shall be provided that, alone or combined with storage, will prevent overflows from occurring during any power outage that is equal to the maximum outage in the immediate area during the last 10 years. If available data are less than 10 years, an evaluation of a similar area served by the power utility for 10 years would be appropriate.

5-622 In Place Equipment Where in-place or mobile internal combustion equipment is utilized, the following shall be applied:

A. Placement. The unit shall be bolted in place. Facilities shall be provided for unit removal for purposes of major repair or routine maintenance.

B. Controls. Provision shall be made for automatic and manual startup and cut-in. See standard 5-500-001.

C. Size. Unit size shall be adequate to provide power for lighting and ventilating systems and such further systems that affect capability and safety as well as the pumps.

D. Engine Location. The unit internal combustion engine should be located above grade, with suitable and adequate ventilation of exhaust gases.

5-700 Force Mains

5-705 Size Minimum size force mains should be not less than 4 inches in diameter.

5-710 Velocity At pumping capacity, a minimum self-scouring velocity of 2 feet per second (fps) should be maintained unless flushing facilities are provided. Velocity should not exceed 8 feet per second.

5-715 Termination The force main should enter the receiving manhole with its centerline horizontal and with an invert elevation that will ensure a smooth flow transition to the gravity flow section; but in no case shall the force main enter the gravity sewer system at a point more than 1 foot above the flow line of the receiving manhole. The design should minimize turbulence at the point of discharge. See Standard Plan 5-715-001 and 5-715-002.

Consideration should be given to the use of inert materials or protective coatings for the receiving manhole to prevent deterioration as s result of hydrogen sulfide or other chemicals where such chemicals are present or suspected to be present because of long force mains.

5-720 Force Main Materials/Construction

A. General. The pipe should be adapted to local conditions, such as character of wastes, soil characteristics, exceptionally heavy external loadings, internal erosion, corrosion, and similar problems.

Installation specification shall contain appropriate requirements based on the criteria, standards, and requirements established by the industry in its technical publications. Requirements shall be set forth in the specifications for the pipe and methods of bedding and backfilling thereof so as not to damage the pipe or its joints, impede cleaning operations, not create excessive side fill pressures or ovalation of the pipe, nor seriously impair flow capacity.

All pipes shall be designed to prevent damage from super-imposed loads. Proper allowance for loads on the pipe shall be made because of the width and depth of trench.

B. Material. Force mains for sizes up to 8 inches shall be ductile iron AWWA C151 Class 52 with ductile iron fittings and gasketed joints. For 12 to 24 inch mains, pipe shall be ductile iron AWWA C151 Class 50 with ductile iron fittings and gasketed joints. A more rigid pipe may be required where unlimited trench widths occur. All ductile iron pipe and fittings shall be epoxy coated and mortar lined and designed for use with corrosive materials.

C. Depth. Force mains shall have a minimum 36 inches of cover to top of pipe. See Chapter 2, Section 2-170 for sanitary sewer/water main crossing requirements.

D. Velocity. The minimum velocity allowed is 2 feet per second (fps) at average Dry Weather Flow. 2 fps is required to maintain solids in suspension although 3 fps is desired to scour settled solids. Maximum velocity allowed shall be 8 fps.

5-725 Surge Protection The pump station and force main shall be sized to minimize rapid changes in velocities along the flow path.

5-730 Air/Vacuum Valves Air release valves and air/vacuum valves shall be located at the high points on the force main within a standard 48-inch manhole or a comparable sized, approved vault. Air release valves shall be fitted with an activated carbon canister to absorb compounds with disagreeable odors prior to releasing the air to the surrounding area. Grades shall be designed to minimize the need for air/vacuum valves when practical. Vehicular access to valve is required for maintenance.

5-735 Anchorage Force mains shall be sufficiently anchored within the pump station and throughout the line length. The number of bends shall be as few as possible. Thrust blocks, restrained joints, and/or tie rods shall be provided where restraint is needed.

Location of thrust blocking shall be shown on plans. Thrust block concrete shall be Class B poured against undisturbed earth. A plastic barrier shall be placed between all thrust blocks and fittings.

See standard detail number 2-130-001, 2-130-002, and 2-130-003 in water section. Designed and approved restraining joint systems may be allowed in lieu of thrust blocking. Restraining joint brand, type, and size shall be specified on the plans.

Gravity mains with a slope 18% or greater shall be ductile iron and anchored per standard plan 5-735-001

5-740 Pressure Tests All force mains shall be tested at a minimum pressure of at least 50 percent above the design operating pressure or 200 psi, whichever is greater, for at least 30 minutes. Leakage shall not exceed the amount given by the following formula:

$$L = \frac{ND\sqrt{P}}{7400}$$

Where L is allowable leakage in gallons per hour
N is the number of pipe joints
D is the pipe diameter in inches

P is the test pressure in psi

Any leaks or imperfections developing under said pressure shall be remedied by the Contractor. No air will be allowed in the line. The main shall be tested between valves. Insofar as possible, no hydrostatic pressure shall be placed against the opposite side of the valve being tested. The pressure test shall be maintained while the entire installation is inspected.

The Contractor shall provide all necessary equipment and shall perform all work connected with the tests. Tests shall be made after all connections have been made. This is to include any and all connections as shown on the plan. The Contractor shall perform all tests to assure that the equipment to be used for the test is adequate and in good operating condition and the air in the line has been released before requesting the City to witness the test.

A water test for all wet wells in accordance with the manhole water test for gravity sewer shall be required.

A mandrel test in accordance with Section 7-17.3(2)G of the WSDOT Standard Specifications is required.

5-800 Control Building (Large Pump Stations Only)

- A control building shall be located directly over the dry well and shall house the pump motors and controls.
- The control building shall be above ground and made of concrete block, brick or other requirements of local design agencies or commissions.
- The exterior design shall be compatible with its surroundings and shall be designed by a licensed architect.
- The control building shall be surrounded with a six-foot high chain link fence with a three-foot wide personnel gate and double leaf 14-foot total width access gate.
- An asphalt parking area, driveway, and truck turnaround area shall be provided.

- Onsite landscaping shall be provided.

- The control building shall be equipped with the minimum following equipment:
  - Steel doors
  - Sky light, directly over each pump
  - Emergency battery operated lights
  - Space heater
  - Fire extinguisher
  - Intrusion alarm
  - Ventilation
  - Wall and roof insulation
- A monorail, bridge crane, or gantry crane with chain hoist shall be installed over each pump.

5-850 Private Grinder Pumps

Private Grinder Pumps are only permitted under special circumstances when no other means of sewer service is available. In general, gravity sewer shall be deepened to eliminate the need for grinder pumps. Use of private grinder pumps requires approval by the City Engineer or designee and will be evaluated on a case-by-case basis. Applicant will need to demonstrate that there is no other feasible means of servicing lot/lots for acceptance.

Permits/application:

- A grinder pump application and plumbing permit is required within the city limits.
- Grinder pump system application is required to be submitted outside the city limits.

Application documents:

- Document providing type and number of fixtures to be serviced by pump (2 copies).
- Submit a grinder pump sizing and selection worksheet (2 copies).
- Type of Pump proposed.

Minimum requirements:

- UL listed pump. (UPC approved in structure)
- 2" minimum discharge from pump servicing water closet. (Per UPC 2003 710.3 WA. State Administration).
- Pump curve from manufacture.

Tank Type:

- 3" building sewer outfall requires 500 gallon minimum size concrete tank outside of structure. 4" building sewer out fall requires 1000 gallon minimum size concrete tank. All other systems require detailed engineering plans and shall be submitted for the City's review.
- Interior grinder pump system requires UPC approval. Exterior grinder pump system (see standard plan 5-850).
- Concrete: 28 day compressive strength Fc' = 4000 psi. Rebar #4 ASTM A-815 grade 60. DL-18" earth cover. LL = 25 snow. Soils = 2000 psf, water pressure: 62.4 psf. Flexible pipe adapter: press seal 4" cast-a –seal. Joint material: meets federal specs. SS-S-00210, ASHTO M- 1988 and ASTM C990, and risers as required.

Site Plan:

- Required when installed outside of structure. (2 copies)

House Plan:

- Required when installed inside of structure. (2 copies)

General Notes:

- Electrical Permit approved prior to final inspection.
- Force main shall be 2" PVC schedule 80. The force main shall be tested @ 150% of its design curve pressure.
- All inspections must be completed prior to backfilling.

- When (2) two 45 degree angles are used to achieve 90 degree bend, no less than one foot of pipe between the two 45 degree bends. (No 90's)

5-900 Grease Interceptors

When pretreatment facilities are required for fats, oils, and greases, by the City Pretreatment Ordinance, the facilities shall conform to the following:

A. Design

Grease interceptors shall be multiple compartment flotation chambers where grease floats to the water surface and is retained while the clear water underneath is discharged.

The grease interceptor shall be followed by a sampling compartment to allow for monitoring of discharges from the pretreatment unit. The geometry of the sampling compartment shall be in accordance with City of Marysville Standard Plans 5-900-001 and 5-900-002 plan for grease interceptors. Interceptors shall have fittings designed for grease retention.

There shall be an adequate number of manholes to provide access for cleaning and maintenance of all areas of the interceptors; a minimum of one (1) manhole per ten (10) feet of interceptor length. Manhole covers shall be gas-tight in construction, and have a minimum opening dimension of twenty (20) inches.

B. Sizing Criteria

Sizing formula. The size of the grease interceptor shall be determined by using the following formula: seating capacity or the number of meals served per peak hour, whichever is greater x 6.0 gallons x 2.5 hours x storage factor = interceptor size in gallons.

Storage factor shall be as follows:	Facilities open less than 16 hours	=1
	Facilities open for 16 hours or more	=2
	Facilities open for 24 hours	=3

In cases of certain fast food restaurants or establishments with the potential to discharge large quantities of oils, grease, solids or wastewaters, larger capacities of grease interceptors may be required. Pre-packaged or manufactured grease interceptors may be approved by the Director with proper engineering and application review.

The following General Notes shall be included on any plans dealing with sanitary sewer design.

GENERAL NOTES (SANITARY SEWER MAIN INSTALLATION)

1. All workmanship and materials shall be in accordance with City of Marysville standards and the most recent copy of the State of Washington Standard Specifications for Road, Bridge, and Municipal Construction (WSDOT).

2. City of Marysville horizontal datum shall be NAD 83, and the vertical datum shall be NAVD 88, in Washington State plane Coordinates (feet), Washington North Zone 4601. A list of benchmarks is available through the Public Works Department.

3. All approvals and permits required by the City of Marysville shall be obtained by the Contractor prior to the start of construction.

4. If construction is to take place in the County right-of-way, the Contractor shall contact the City Public Works Department to obtain all the required approvals and permits.

5. A preconstruction meeting shall be held with the City of Marysville Department of Public Works / Community Development Department prior to the start of construction.

6. The City of Marysville Community Development Department shall be notified a minimum of 48 hours in advance of a tap or connection to an existing sanitary sewer main. The inspector shall be present at the time of the tap or connection.

7. The Contractor shall be fully responsible for the location and protection of all existing utilities. The Contractor shall verify all utility locations prior to construction by calling the Underground Locate Line at 1-800-424-5555 a minimum of 48 hours prior to any excavation.

8. Gravity sewer main with ≤5' of cover shall be D.I.P. Class 52; 5'-18' of cover shall be PVC, ASTM D 3034 SDR 35, or ASTM F 789 with joints and rubber gaskets conforming to ASTM D 3212 and ASTM F 477; >18' cover shall be D.I.P. Class 52, or C-900.

9. Precast manholes shall meet the requirements of ASTM C 478. Manholes shall be Type 1-48" manhole unless otherwise specified on the plans. Joints shall be rubber gasketed conforming to ASTM C 443 and shall be grouted from the inside. Lift holes shall be grouted from the outside and inside of the manhole.

10. Side sewer services shall be PVC, ASTM D 3034 SDR 35 with flexible gasketed joints. Side sewer connections shall be made by a tap to an existing main or a tee from a new main connected above the springline of the pipe.

11. All sewer mains shall be field staked for grades and alignment prior to construction by a licensed engineer or surveying firm qualified to perform such work. Prior to constructing any sewer, the lot corners shall be staked and sewer line location established by survey, cost of which shall be borne by the Developer.

12. All plastic pipe and services shall be installed with continuous tracer tape installed 12" to 18" under the proposed finished subgrade. The marker shall be plastic non-biodegradable, metal core or backing marked sewer which can be detected by a standard metal detector.

13. Each side sewer lateral shall have a 2" x 4" wood "marker" at the termination of the stub. The "marker" shall extend from the trench to above finished grade. Above the ground surface, it shall be painted "green" with SEWER and the depth, in feet, stenciled in white letters 2" high.

14. Side sewers shall be installed by the Developer and coordinated for clearance with power, telephone, and other utilities.

    All side sewers to be installed 10 feet into lot served and staked and marked as shown on these plans.

15. Pipe bedding shall be in accordance with WSDOT Standard Plan B-18c Class F. Pea gravel is an acceptable bedding material. All pipe shall be laid on a properly prepared foundation according to Standard Specification 7-02.3(1). This shall include necessary leveling of the trench bottom or the top of the foundation materials as well as placement and compaction of required bedding material to uniform grade so that the entire length of the pipe will be supported an a uniformly dense unyielding base.

16. A 6 foot square X 4-inch thick concrete pad shall be installed around all SSMH'S and a 3 foot square X 4-inch thick concrete pad shall be installed around all cleanouts that are not in a pavement area.

17. Temporary street patching shall be allowed for as approved by the City Engineer. Temporary street patching shall be provided by placement and compaction of 1-inch maximum asphalt concrete cold mix. Contractor shall be responsible for maintenance as required.

18. Erosion control measure shall be taken by the Contractor during construction to prevent infiltration and inflow into existing and proposed sanitary sewer facilities.

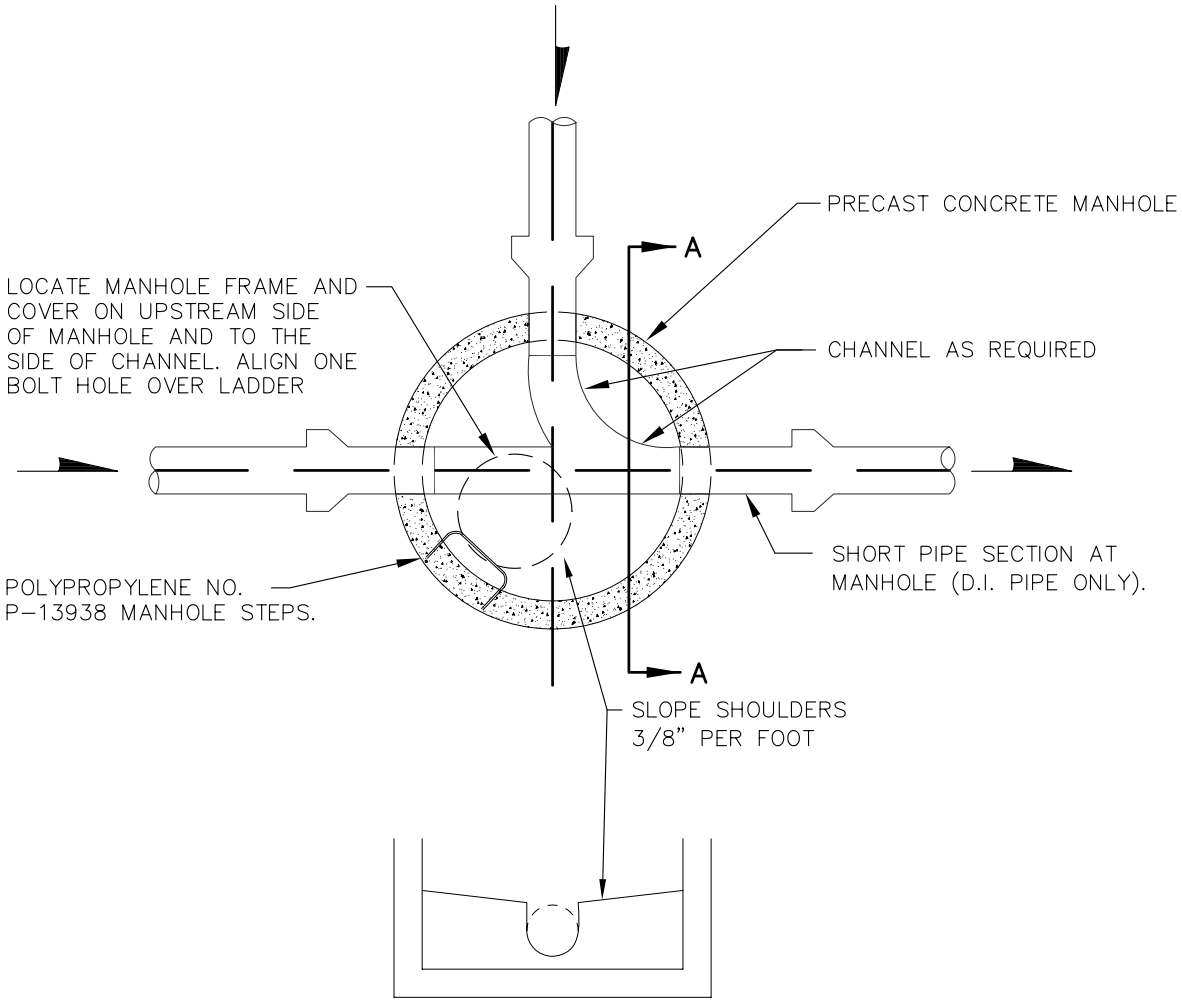
19. Provide traffic control plan(s) in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) as required.

20. It shall be the responsibility of the Contractor to have a copy of these approved plans on construction site at all times.

21. Any changes to the design shall first be reviewed and approved by the project engineer and the City of Marysville.

22. All lines shall be cleaned and pressure tested prior to paving in conformance with the above referenced specifications. (See note 1.) Testing of the sanitary sewer main shall include TV-ing of the main by the Contractor. Immediately prior to TV-ing, enough water shall be run down the line so it comes out the lower manhole. A copy of the video tape shall be submitted to the City of Marysville. Acceptance of the line will be made after the tape has been reviewed and approved by Public Works. A water test of all manholes in accordance with Marysville standard may also be required. Testing shall take place after all underground utilities are installed and compaction of the roadway subgrade is completed.

23. Prior to backfill all mains and appurtenances shall be inspected and approved by the City of Marysville Department of Public Works. Approval shall not relieve the Contractor for correction of any deficiencies and/or failures as determined by subsequent testing and inspections. It shall be the Contractor's responsibility to notify the City of Marysville for the required inspections.



SECTION A–A

NOTES:

1. PIPE CONNECTIONS TO MANHOLES SHALL BE AS FOLLOWS: PVC PIPE: CAST OR GROUT A MANHOLE COUPLING INTO WALL. D.I. PIPE: BELL AND SPIGOT JOINT OR FLEXIBLE COUPLING EITHER SHALL BE 12" MAXIMUM DISTANCE FROM MANHOLE WALL. PVC AND D.I. PIPE, OPTIONAL: CORE THE MANHOLE AND CONNECT SEWER PIPE WITH A WATER TIGHT FLEXIBLE RUBBER BOOT IN MANHOLE WALL, KOR-N-SEAL BOOT OR EQUAL.

APPROVED BY

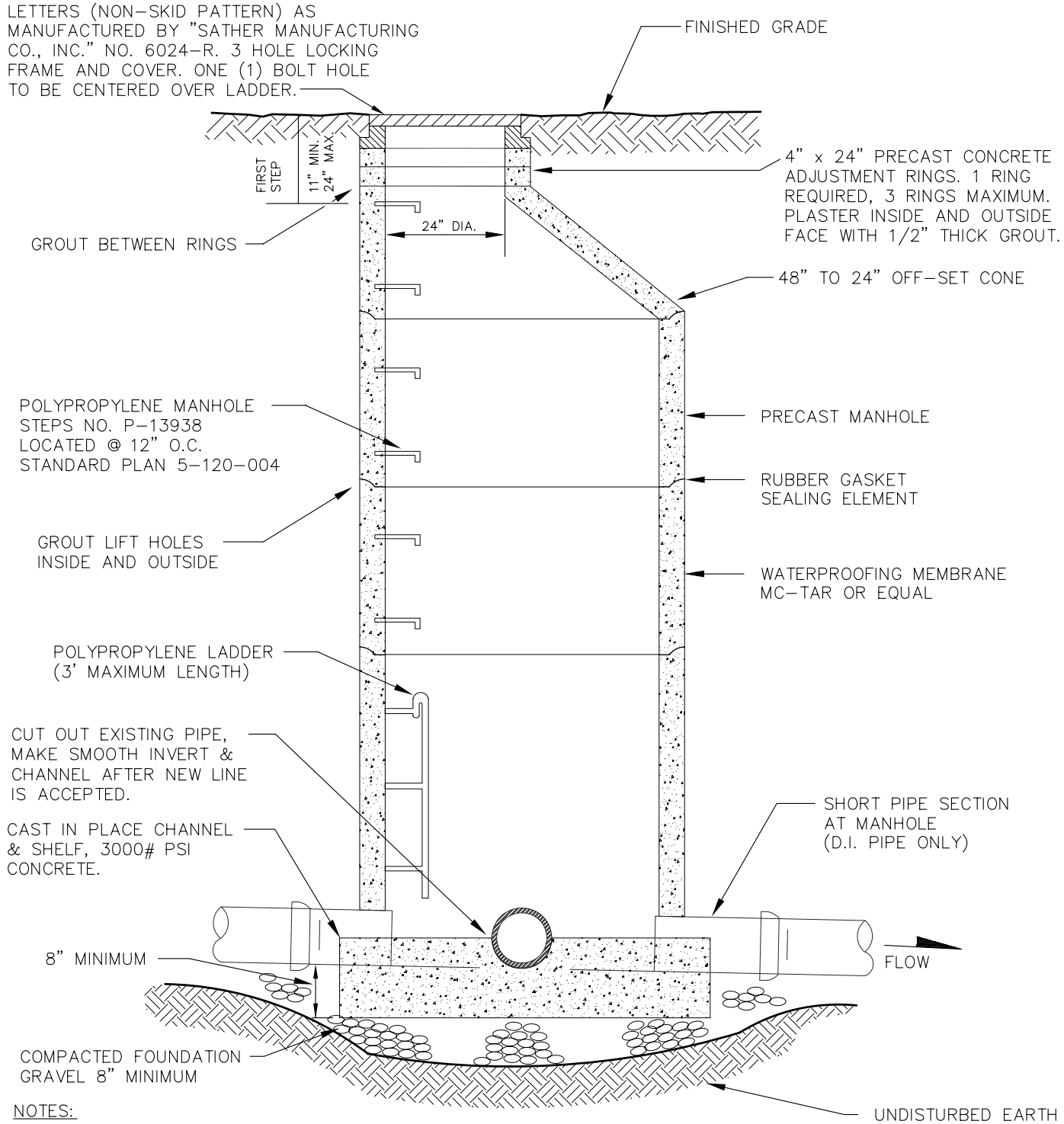
MARYSVILLE CITY ENGINEER DATE

MANHOLE PLAN

CITY OF Marysville WASHINGTON

LAST REVISED 10/16/01

STANDARD PLAN 5–120–001



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2. DROP OF GRADE THRU MANHOLE SHALL BE 0.10', UNLESS OTHERWISE APPLICABLE.

APPROVED BY

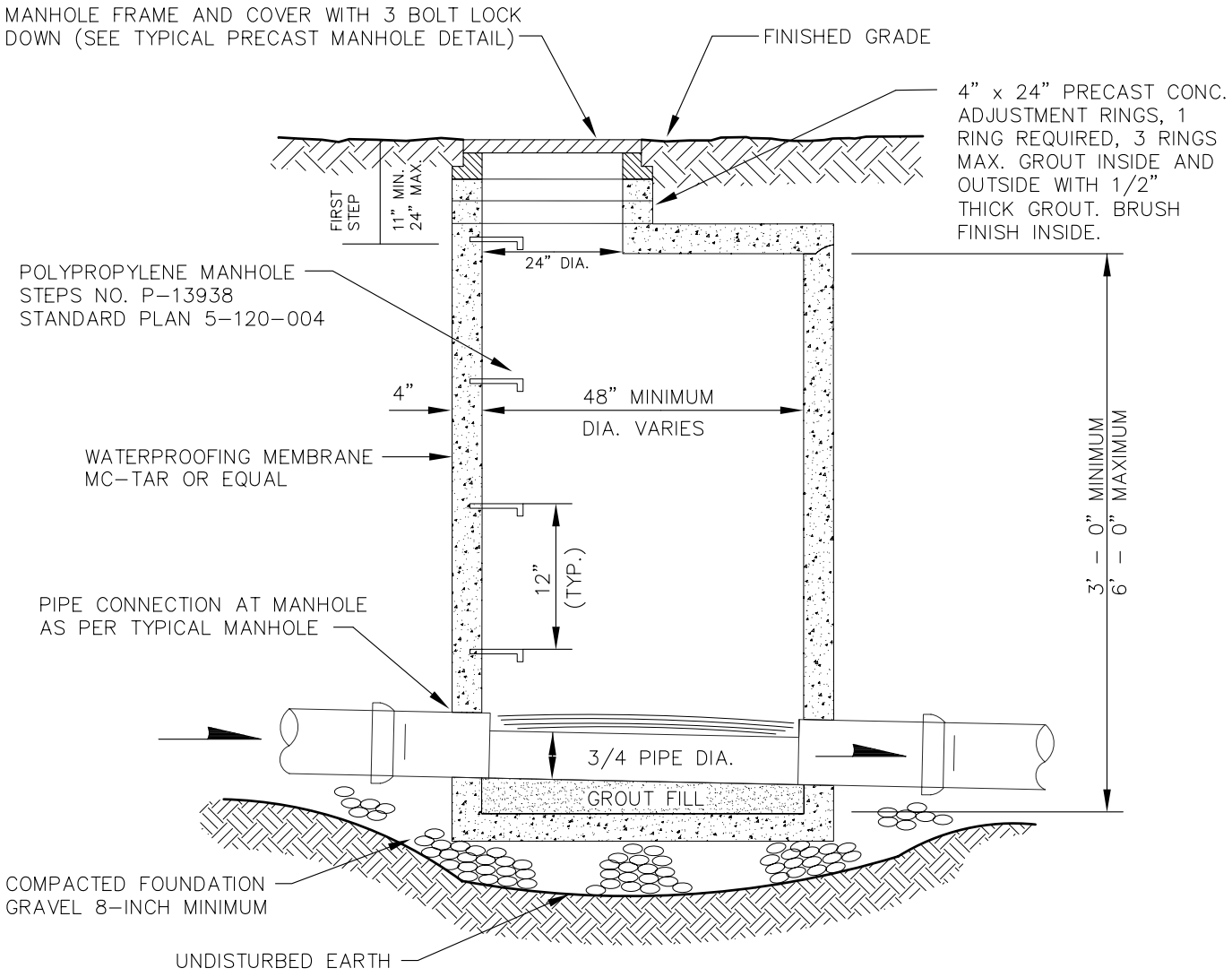
MARYSVILLE CITY ENGINEER DATE

TYPE 1 MANHOLE DETAIL

CITY OF Marysville WASHINGTON

LAST REVISED 03/09/05

STANDARD PLAN 5-120-002



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2. DROP OF GRADE THRU MANHOLE SHALL BE 0.10', UNLESS OTHERWISE APPLICABLE.
3. GROUT ALL PICK HOLES INSIDE AND OUT.

APPROVED BY

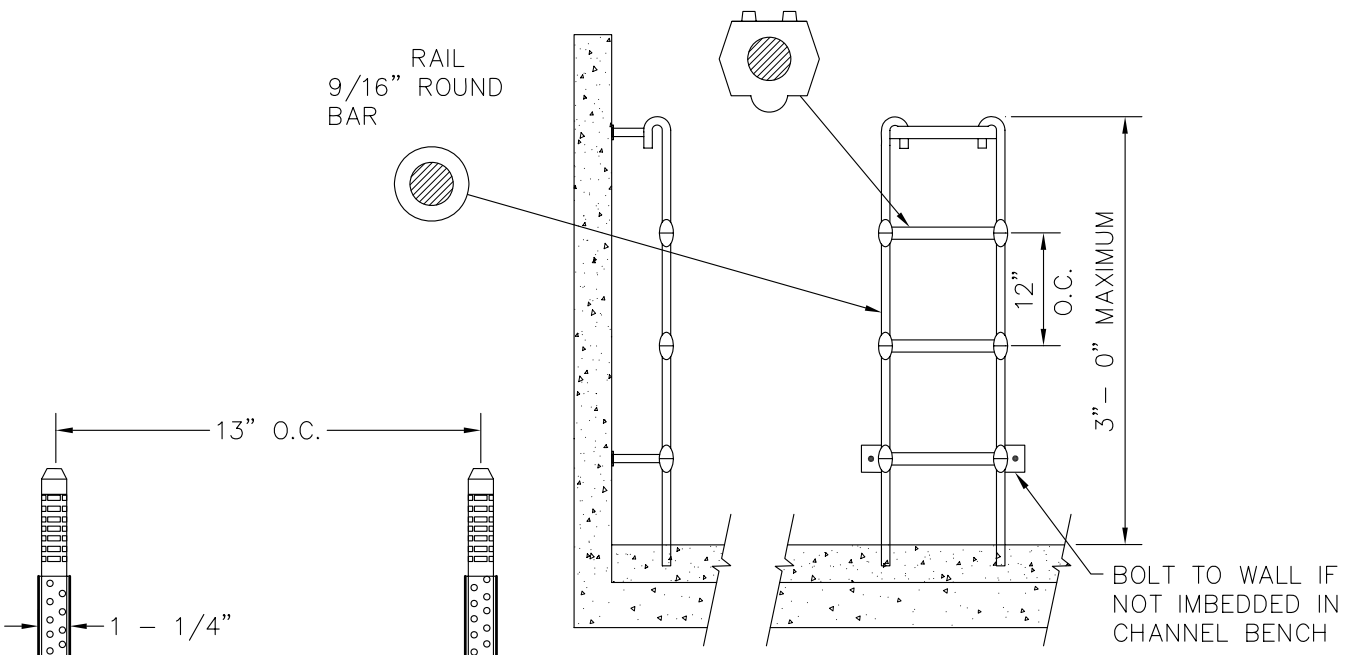
MARYSVILLE CITY ENGINEER DATE

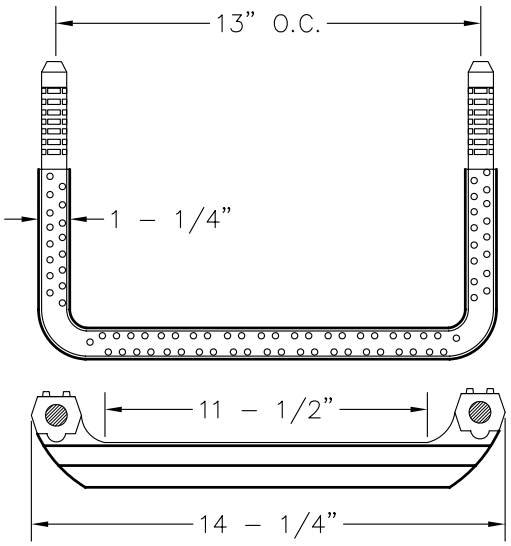
TYPE 3 MANHOLE DETAIL

CITY OF Marysville WASHINGTON

LAST REVISED 03/09/05

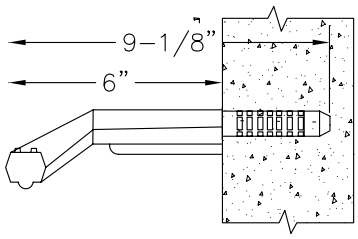
STANDARD PLAN 5-120-003





LADDER SHALL CONFORM TO POLYPROPYLENE ASTM D-1401 1/2" GRADE 60 REINFORCING BAR A-615 9/16" COLD DRAWN BAR C-1018.

POLYPROPYLENE LADDER



POLYPROPYLENE STEP, LANE NO. P-13938 OR EQUAL

POLYPROPYLENE MANHOLE STEPS

APPROVED BY

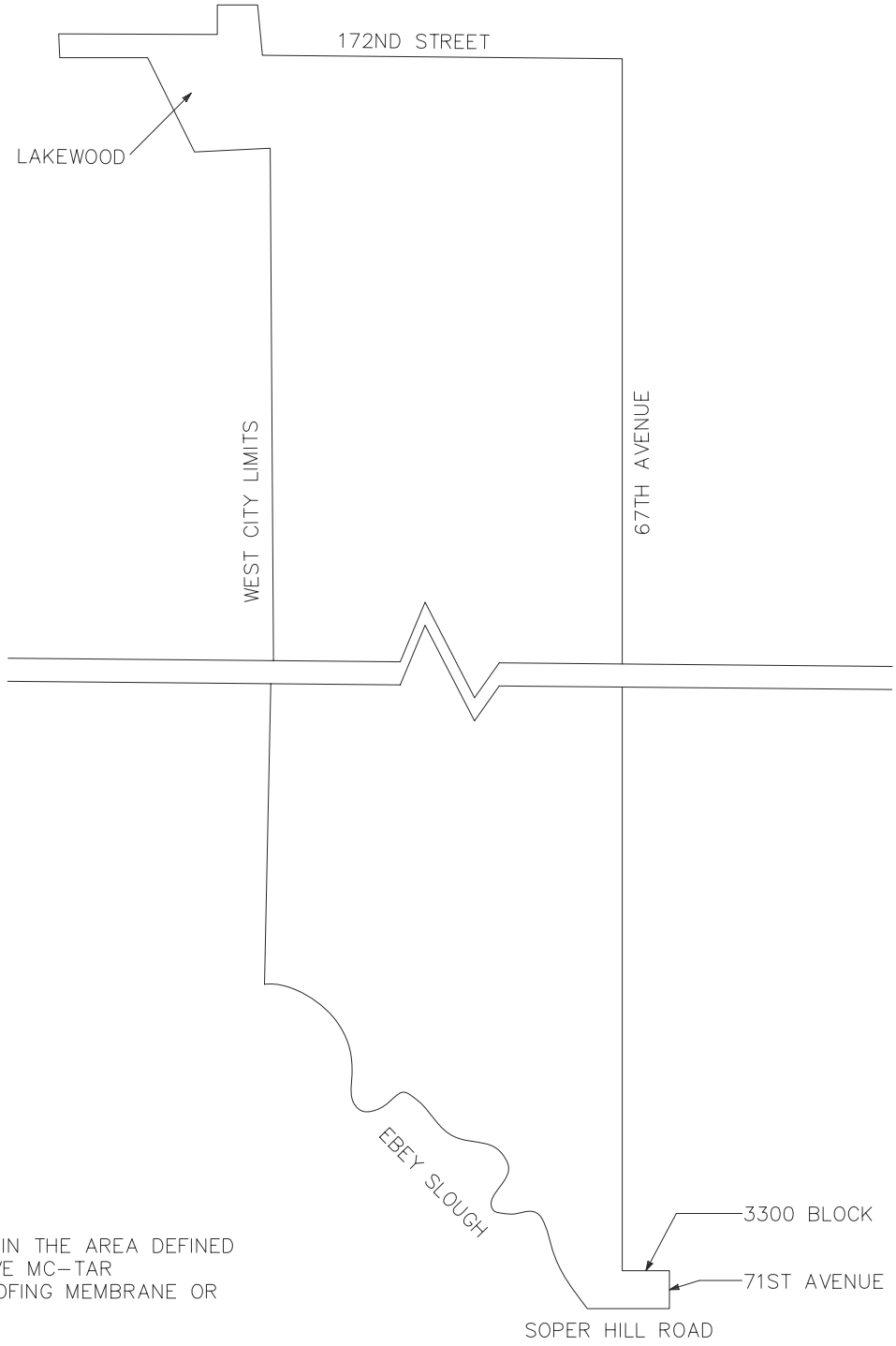
MARYSVILLE CITY ENGINEER DATE

LADDER DETAIL

CITY OF Marysville WASHINGTON

LAST REVISED 10/16/01

STANDARD PLAN 5-120-004



NOTE:
ALL SSMH IN THE AREA DEFINED SHALL HAVE MC-TAR WATERPROOFING MEMBRANE OR EQUAL

APPROVED BY

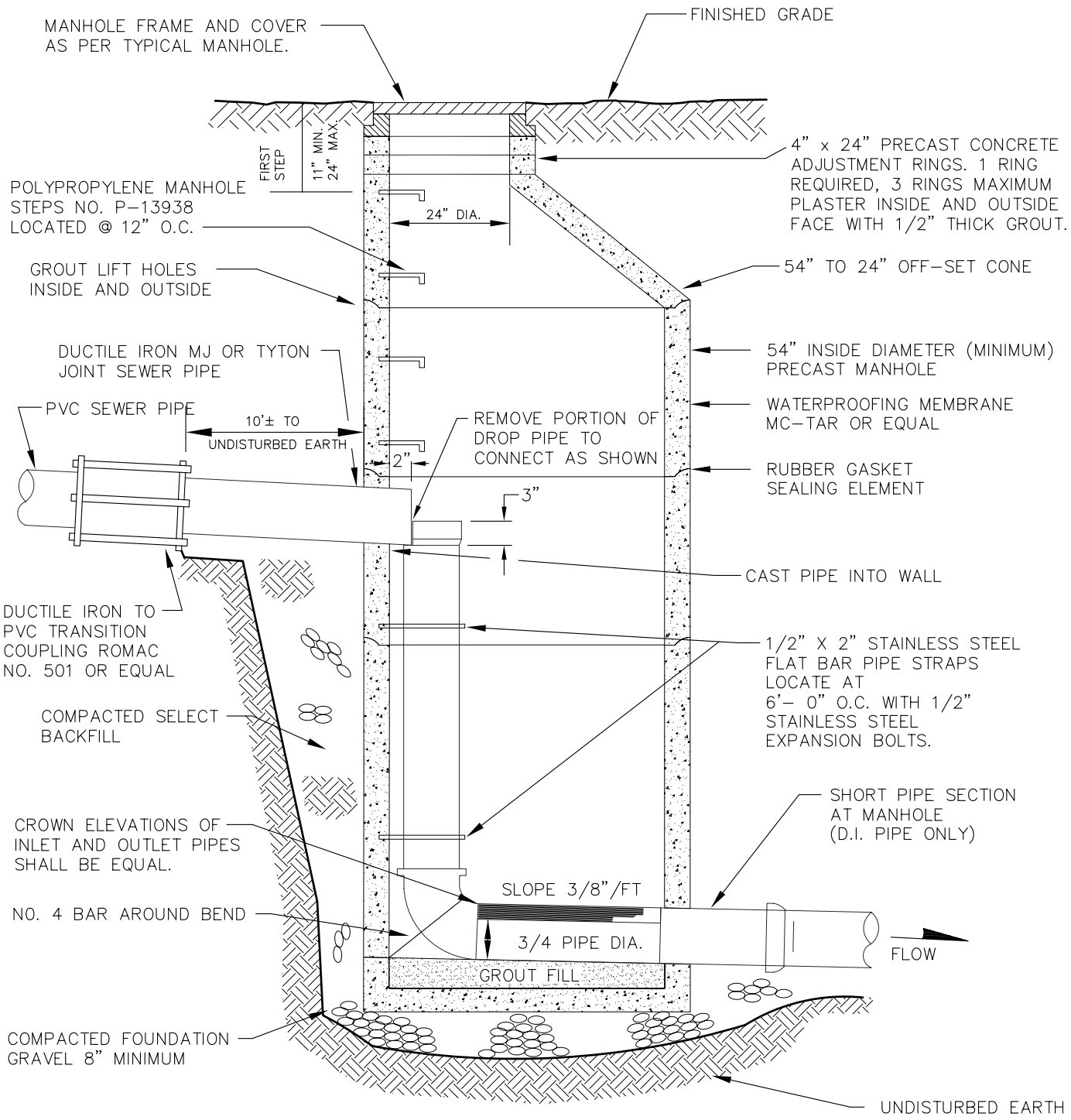
MARYSVILLE CITY ENGINEER DATE

MANHOLE WATERPROOFING ZONE

CITY OF Marysville WASHINGTON

LAST REVISED 2/14/05

STANDARD PLAN 5-120-005



NOTES:

1. PIPE CONNECTIONS TO MANHOLES SHALL BE AS FOLLOWS:
   PVC PIPE" CAST OR GROUT A MANHOLE COUPLING INTO WALL.
   D.I. PIPE: BELL AND SPIGOT JOINT OR FLEXIBLE COUPLING EITHER SHALL BE 12" MAXIMUM DISTANCE FROM MANHOLE WALL. PVC AND D.I. PIPE, OPTIONAL: CORE THE MANHOLE AND CONNECT SEWER PIPE WITH A WATER TIGHT GLEXIBLE RUBBER BOOT IN MANHOLE WALL, KOR-N-SEAL BOOT OR EQUAL.
2. DROP OF GRADE THRU MANHOLE SHALL BE 0.10', UNLESS OTHERWISE APPLICABLE.

APPROVED BY

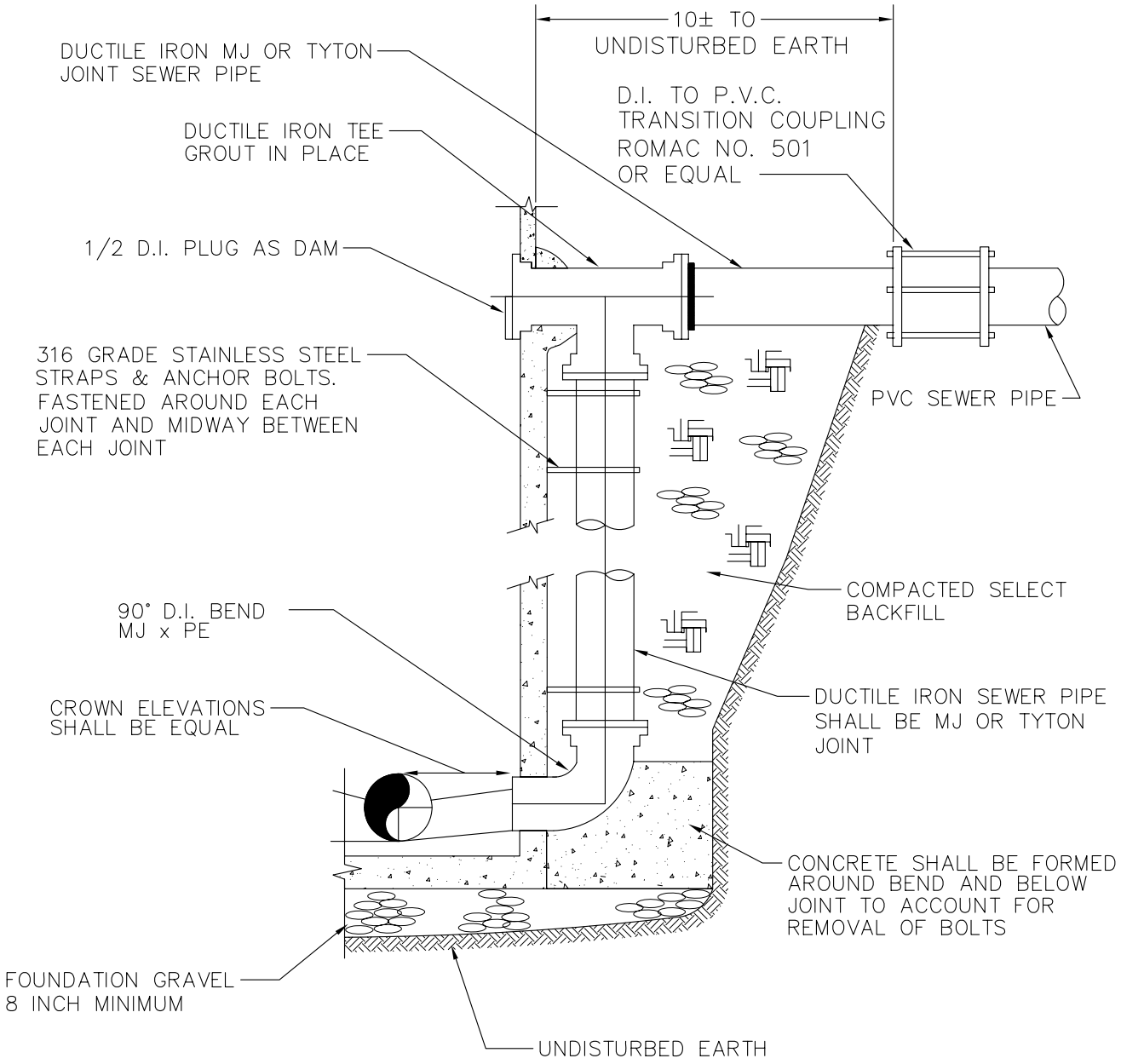
MARYSVILLE CITY ENGINEER DATE

INSIDE DROP CONNECTION FOR SANITARY SEWERS

CITY OF Marysville WASHINGTON

LAST REVISED 03/09/05

STANDARD PLAN 5-140-001



APPROVED BY

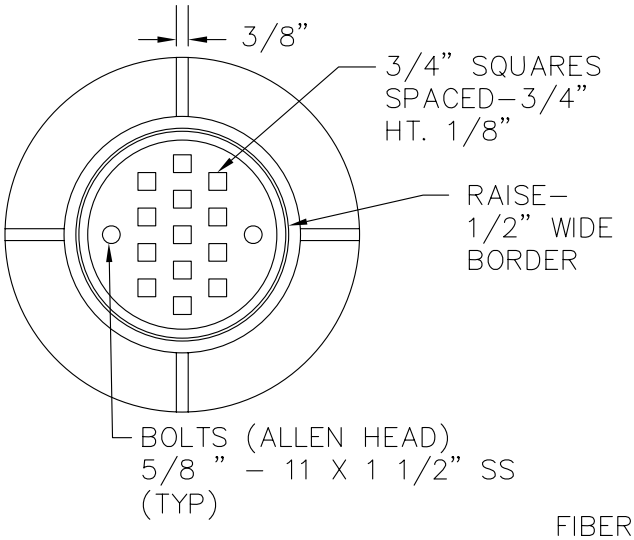
MARYSVILLE CITY ENGINEER DATE

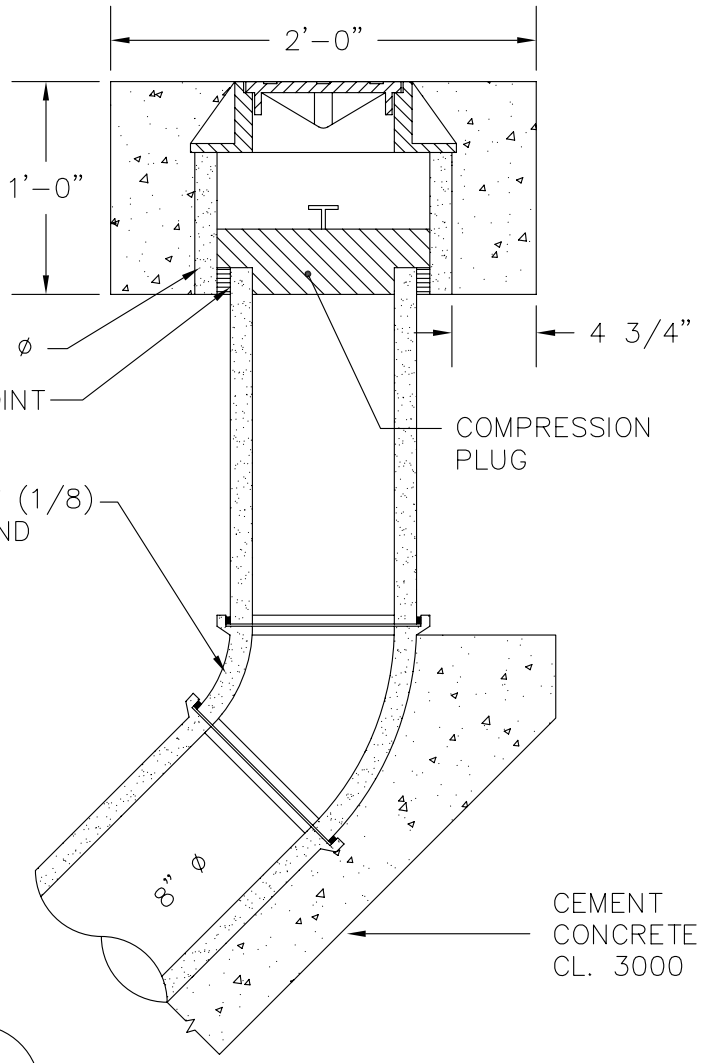
CITY OF Marysville WASHINGTON

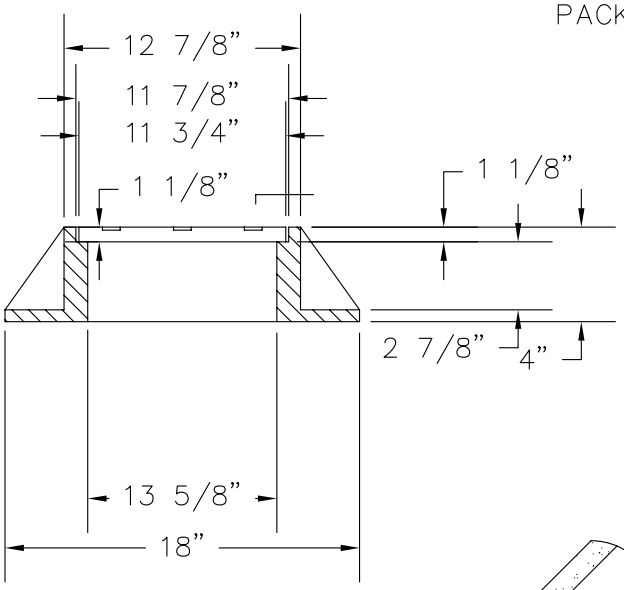
OUTSIDE DROP CONNECTION FOR SANITARY SEWERS

LAST REVISED 10/23/01

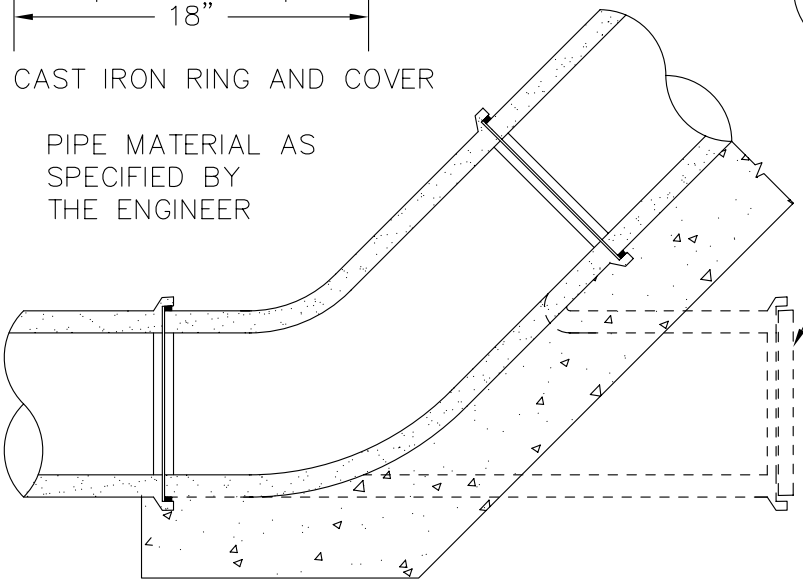
STANDARD PLAN 5–140–002







CAST IRON RING AND COVER



CLEANOUTS NOT IN ROADWAY SHALL HAVE A 3'X3'X4" CONC. PAD AT GROUND LEVEL.

8" CLEAN OUT

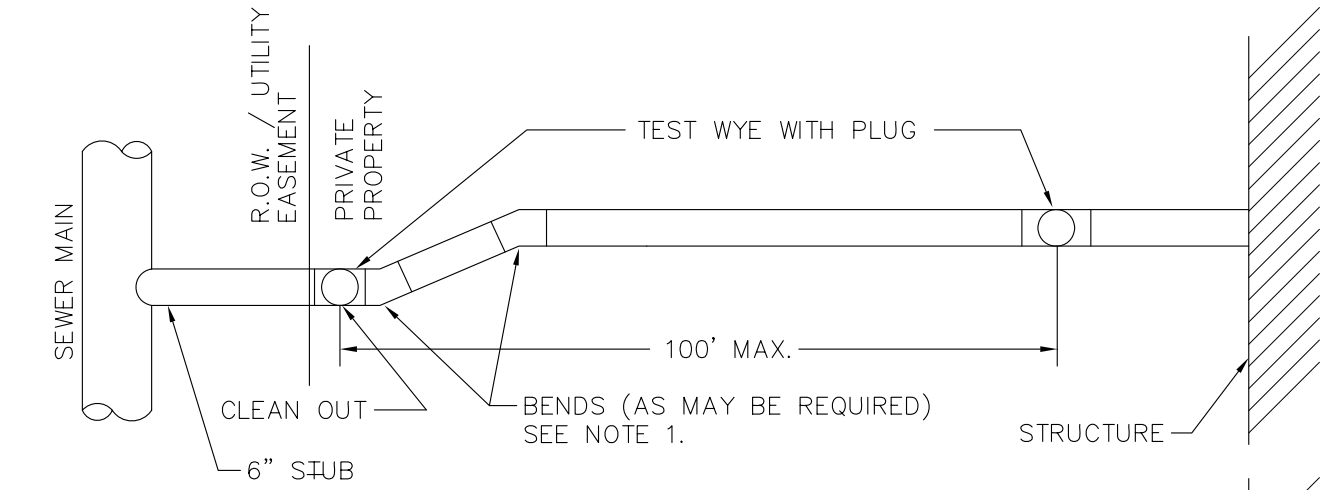
LAST REVISED 1/19/05

APPROVED BY

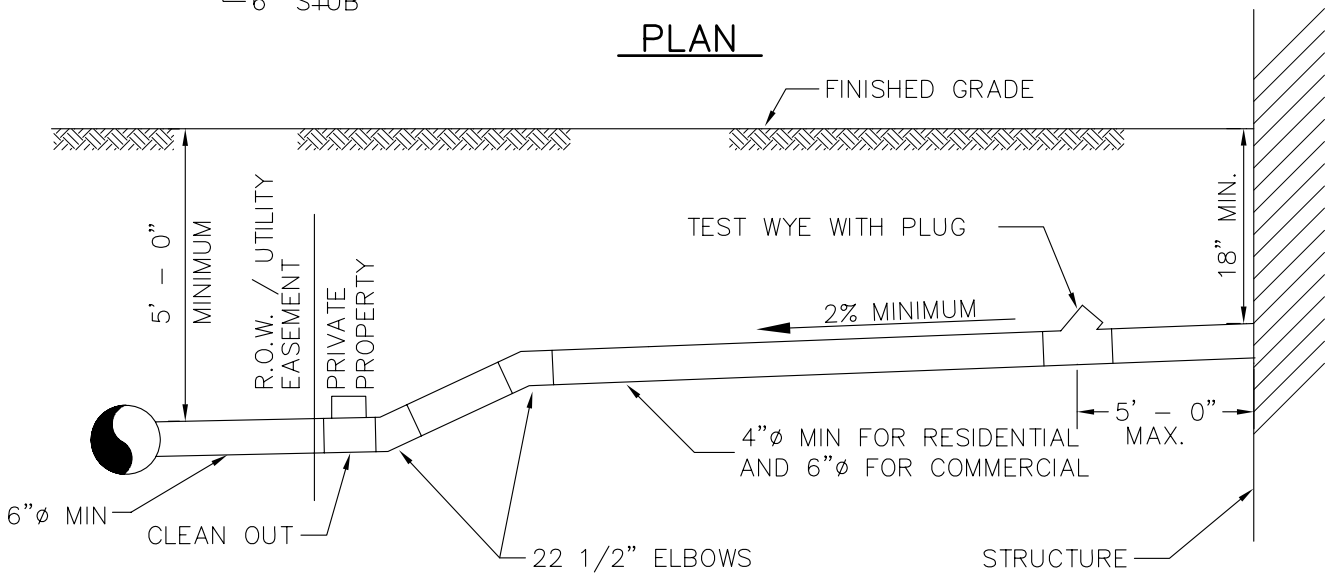
MARYSVILLE CITY ENGINEER DATE

CITY Marysville WASHINGTON

STANDARD PLAN 5–145–001



PLAN



ELEVATION

NOTES:

1. ELBOWS SHALL NOT BE GREATER THAN 45°
2. CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 45° ACCUMULATED ELBOW/100'.
3. RIGHT-OF-WAY RESTORATION SHALL MATCH OR EXCEED THE ORIGINAL CONDITION.
4. BACKFILL FOR PAVED AREA SHALL BE 5/8" MINUS CRUSHED SURFACING TOP COURSE, COMPACTED IN 12" LIFTS.
5. ALL PLUMBING OUTLETS SHALL BE CONNECTED TO THE SEWER. NO DOWNSPOUTS OR STORM DRAINAGE MAY BE CONNECTED TO THE SEWER SYSTEM.
6. 18" MINIMUM COVERAGE OF PIPE.
7. 5' MINIMUM COVERAGE AT PROPERTY LINE.
8. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH AN ELBOW OR WYE. 90° CHANGE WITH AN ELBOW AND WYE.
9. 6" SEWER PIPE MINIMUM SIZE IN R.O.W. 2% MINIMUM GRADE, 45% MAXIMUM.
10. 4" SEWER PIPE MINIMUM SIZE ON PRIVATE RESIDENTIAL PROPERTY. 6" SEWER PIPE MIN. SIZE ON COMMERCIAL PROPERTIES. 2% MIN GRADE, 45° MAXIMUM.
11. CONSTRUCTION IN RIGHT-OF-WAY SHALL BE PERFORMED BE A REGISTERED LICENSED CONTRACTOR.
12. ALL CONSTRUCTION REQUIRES A PERMIT AND PAYMENT OF FEES. COMPLETE LEGAL DESCRIPTION OF PROPERTY AND DIMENSIONS.
13. AS-BUILT DRAWING SHOWING LOCATION OF SIDE SEWER IN RELATION TO THE HOUSE IS REQUIRED AFTER INSTALLATION.
14. MINIMUM OF 12" BETWEEN 45 DEGREE FITTINGS.

APPROVED BY

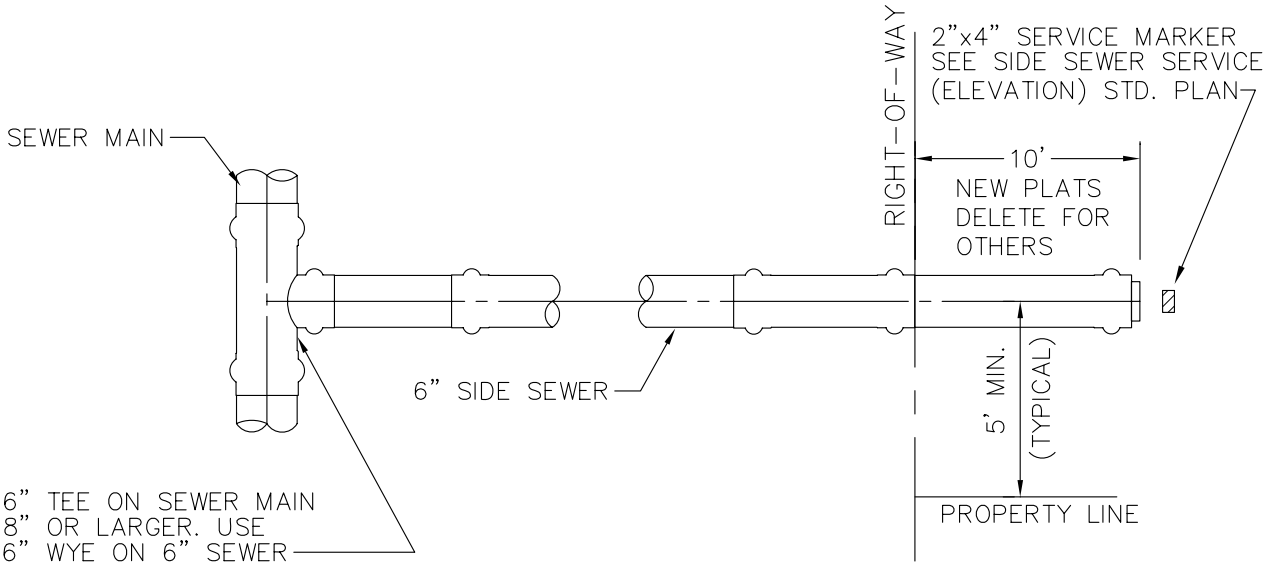
MARYSVILLE CITY ENGINEER DATE

TYPICAL SIDE SEWER

CITY OF Marysville WASHINGTON

LAST REVISED 03/09/05

STANDARD PLAN 5-150-001



SIDE SEWER SERVICE (PLAN)

LAST REVISED 03/09/05

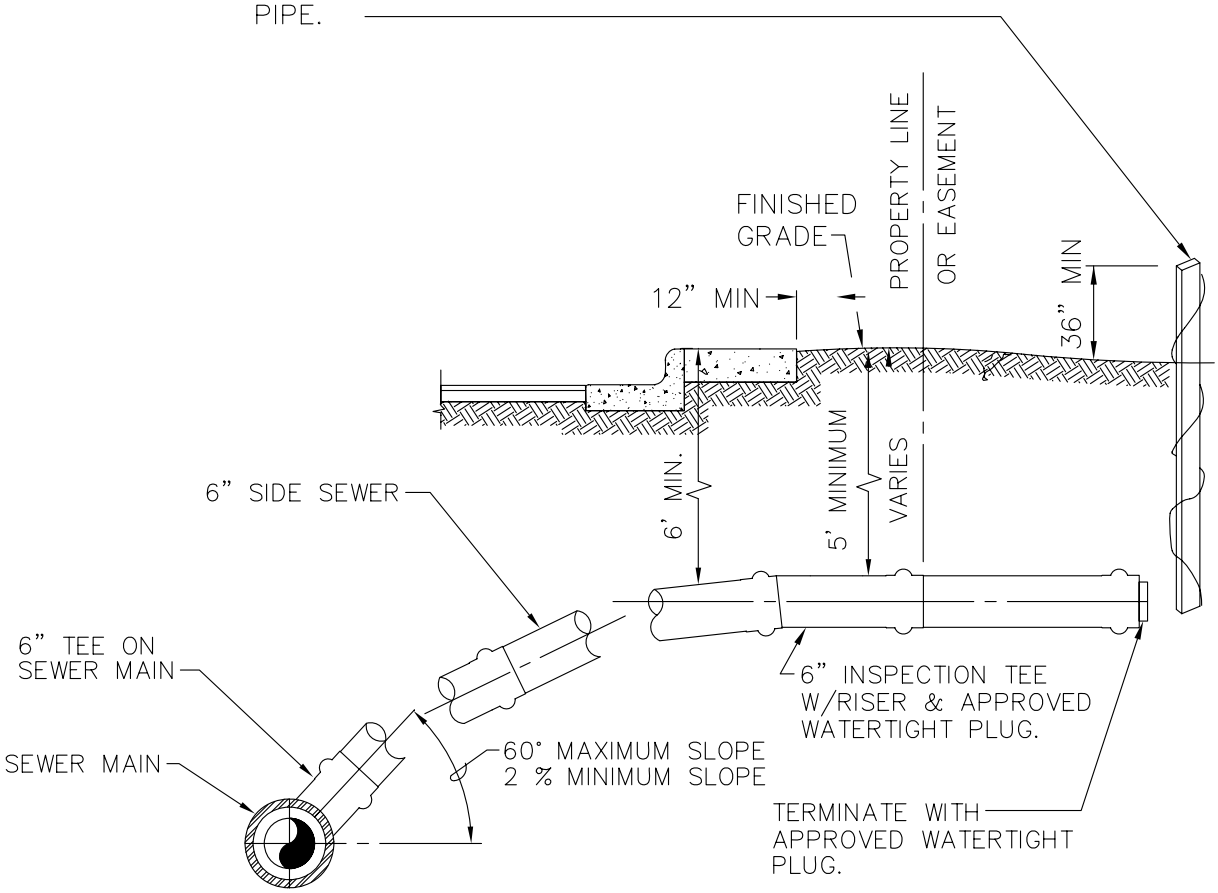
APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY of Marysville WASHINGTON

STANDARD PLAN 5-150-002

THE LOCATION OF THE SIDE SEWER STUBS AT THE PROPERTY LINE SHALL BE MARKED BY THE CONTRACTOR WITH A 2" x 4" WOODEN STAKE (MINIMUM 8' LONG) BURIED IN THE GROUND TO THE DEPTH OF THE SEWER STUB. THE EXPOSED PORTION OF THE 2" x 4" SHALL BE PAINTED GREEN AND MARKED "SEWER" WITH (2" MINIMUM) WHITE LETTERS. DEPTH OF SIDE SEWER SHALL BE MARKED ON 2" x 4" WITH WHITE PAINT. 12 GAUGE MINIMUM BARE GALVANIZED WIRE SHALL BE PROVIDED TO EXTEND FROM THE CAPPED END OF THE SIDE SEWER TO THE TOP OF SIDE SEWER STAKE. THE WIRE SHALL WRAP AROUND THE 2" x 4" MARKER BUT SHALL NOT BE CONNECTED TO SIDE SEWER PIPE.



APPROVED BY

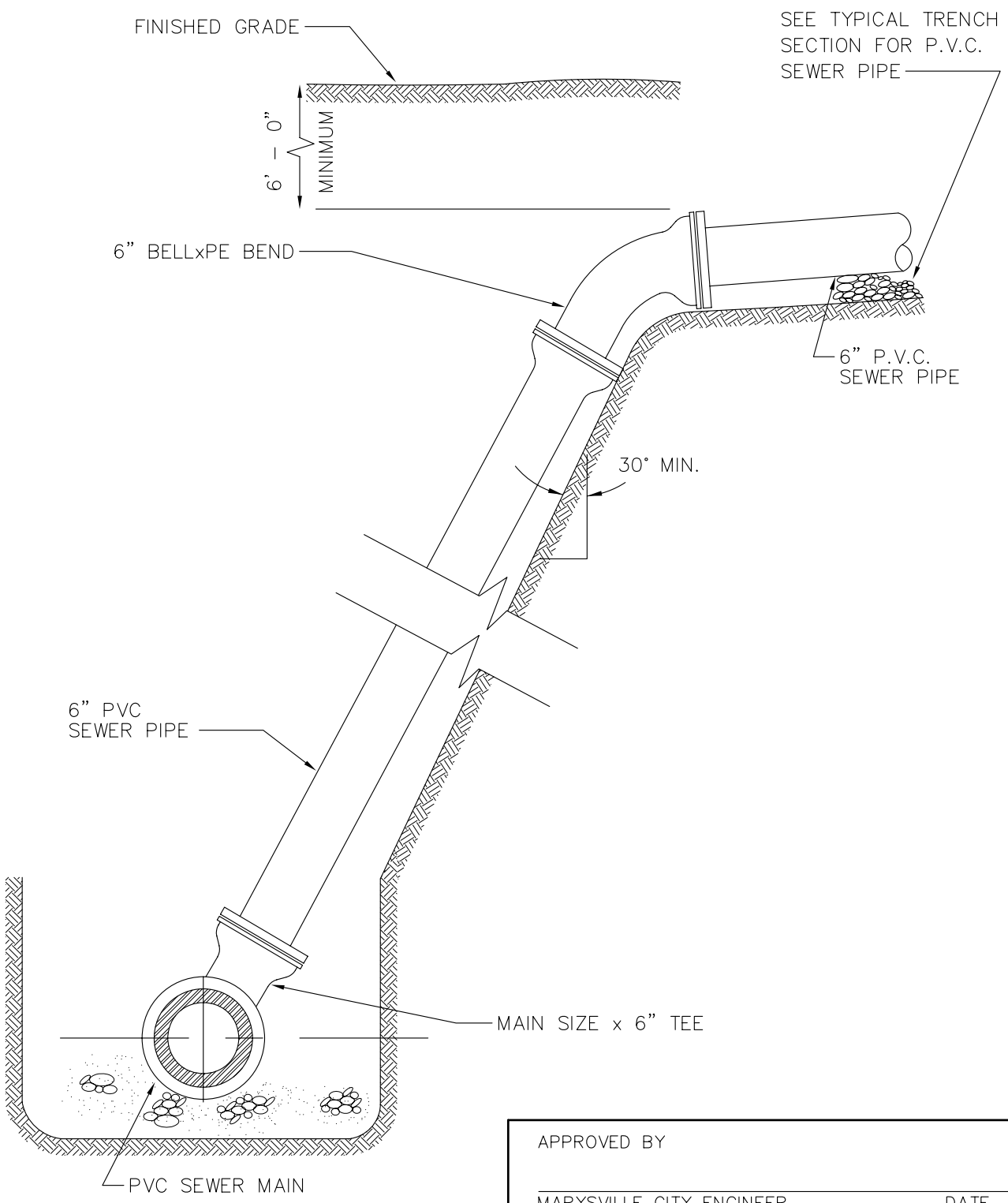
MARYSVILLE CITY ENGINEER DATE

SIDE SEWER SERVICE (ELEVATION)

CITY OF Marysville WASHINGTON

LAST REVISED 03/09/05

STANDARD PLAN 5-150-003



NOTE:
SEE TYPICAL TRENCH SECTION FOR DUCTILE IRON SEWER PIPE

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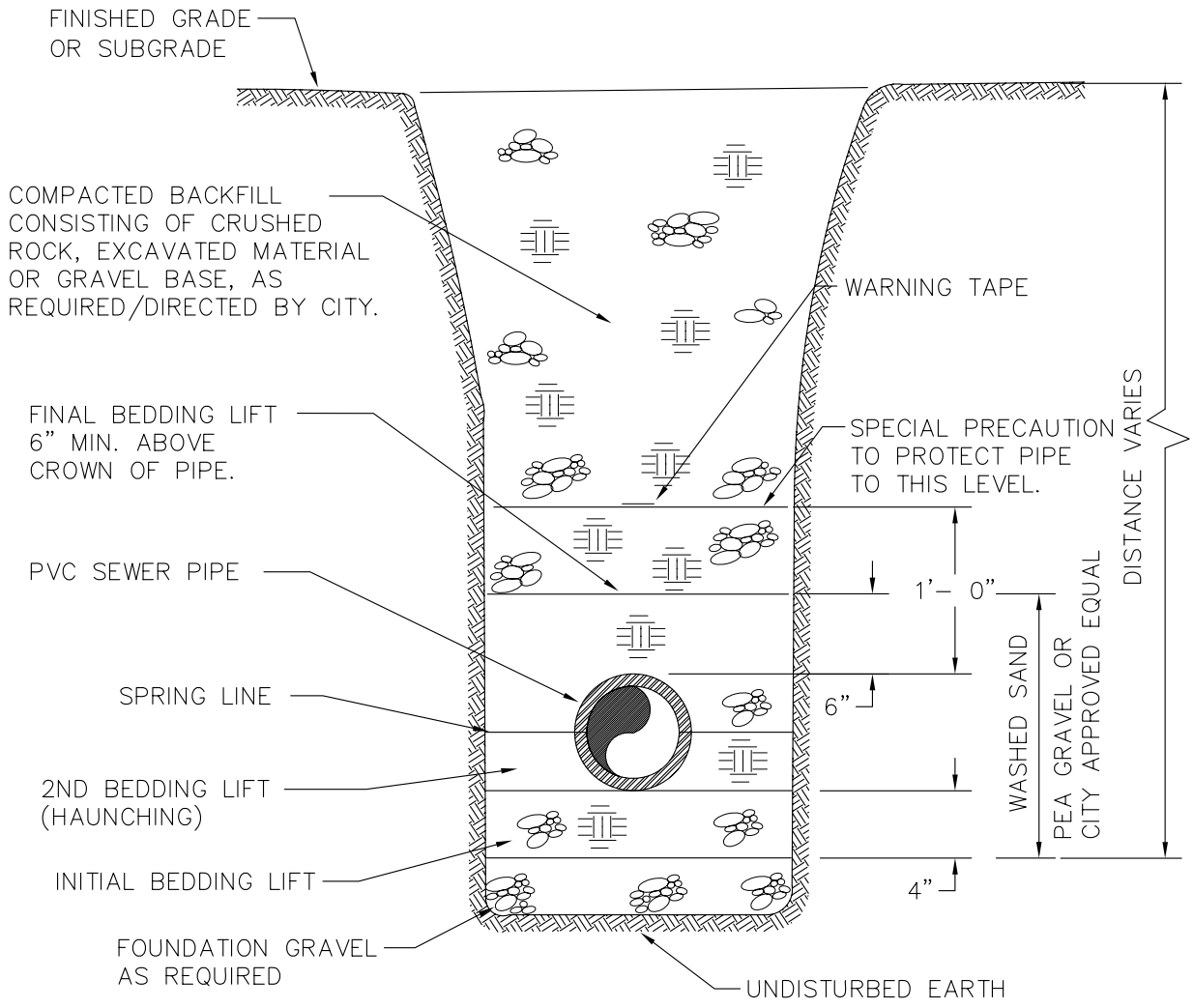
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

PVC SIDE SEWER VERTICAL CONNECTION

LAST REVISED 10/23/01

STANDARD PLAN 5-150-004



NOTE:
BACKFILL MATERIAL AND COMPACTION SHALL BE IN CONFORMANCE WITH CITY STANDARDS AND/OR THE STATE OR COUNTY PERMIT REQUIREMENTS (AS MAY BE APPLICABLE).

LAST REVISED 10/23/01

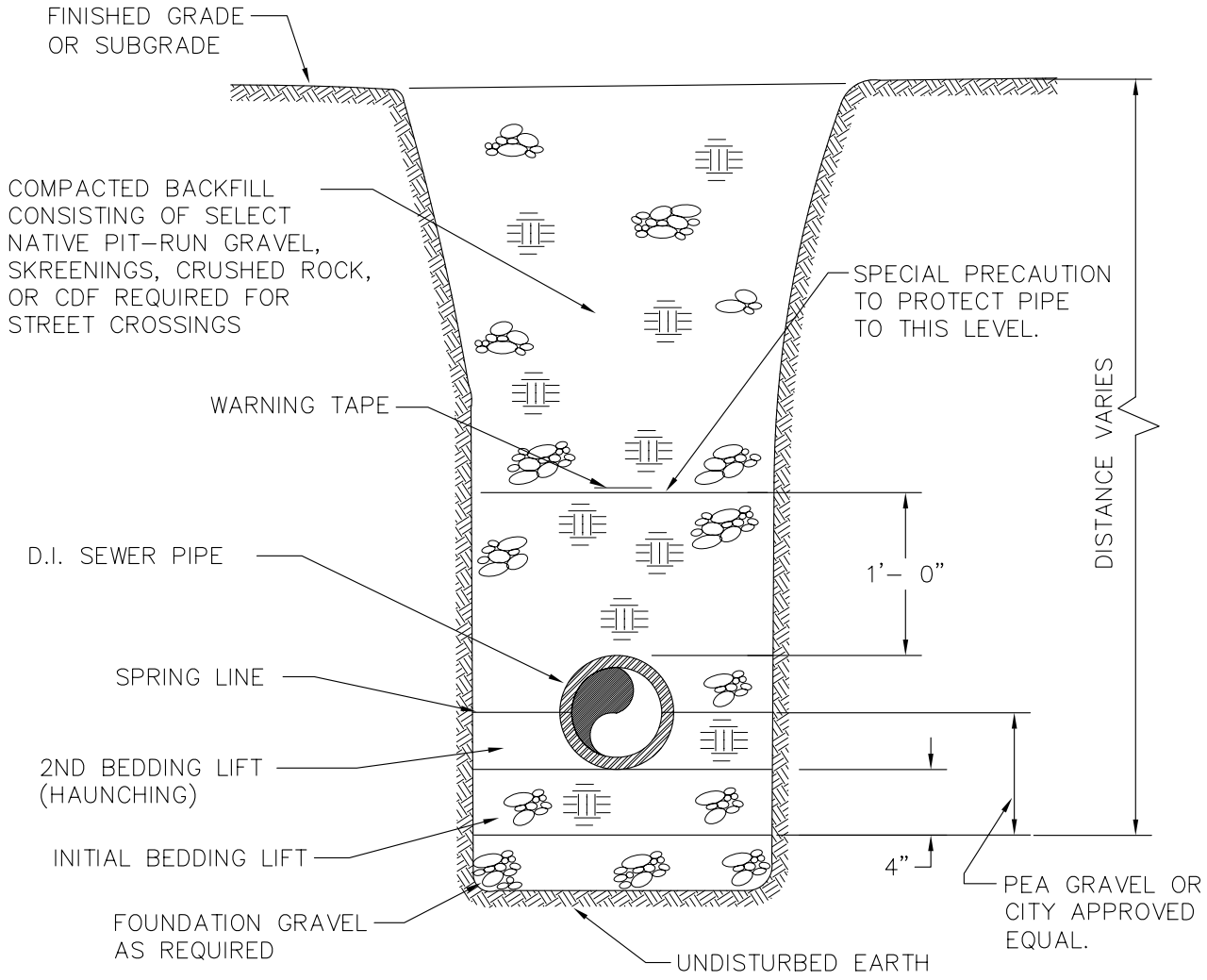
APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

TRENCH (FLEXIBLE PIPE)

STANDARD PLAN 5-175-001



NOTE:
BACKFILL MATERIAL AND COMPACTION SHALL BE IN CONFORMANCE WITH CITY STANDARDS AND/OR THE STATE OR COUNTY PERMIT REQUIREMENTS (AS MAY BE APPLICABLE).

APPROVED BY

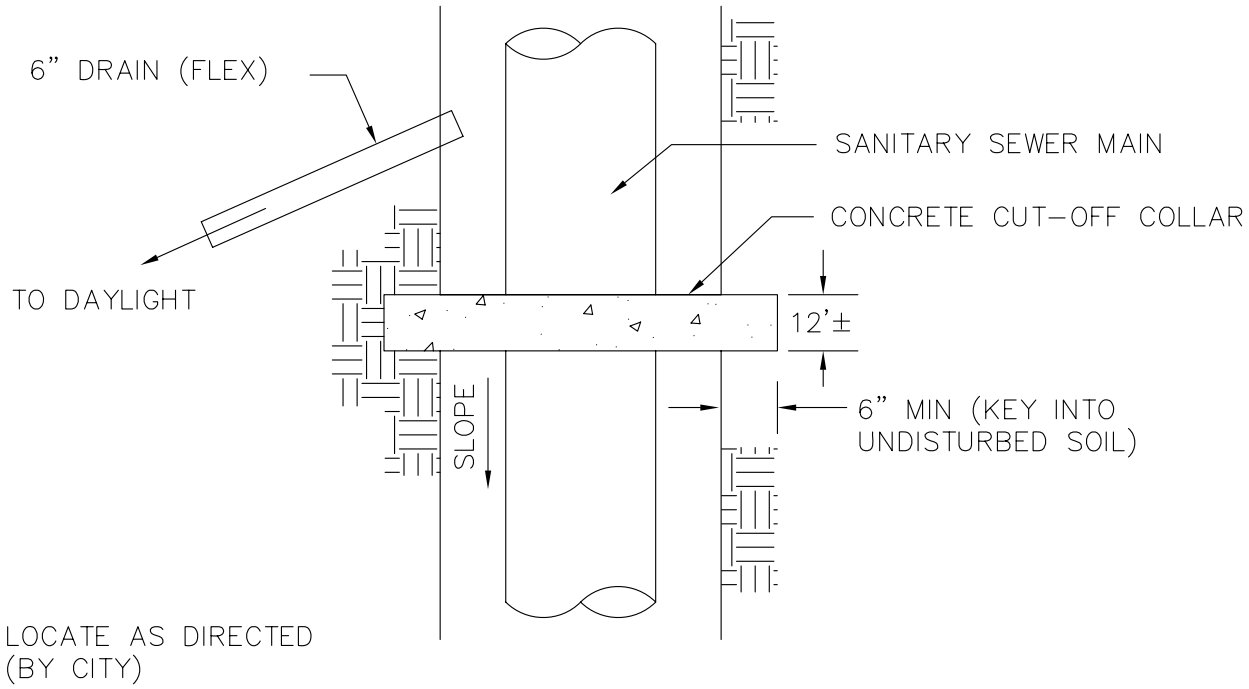
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

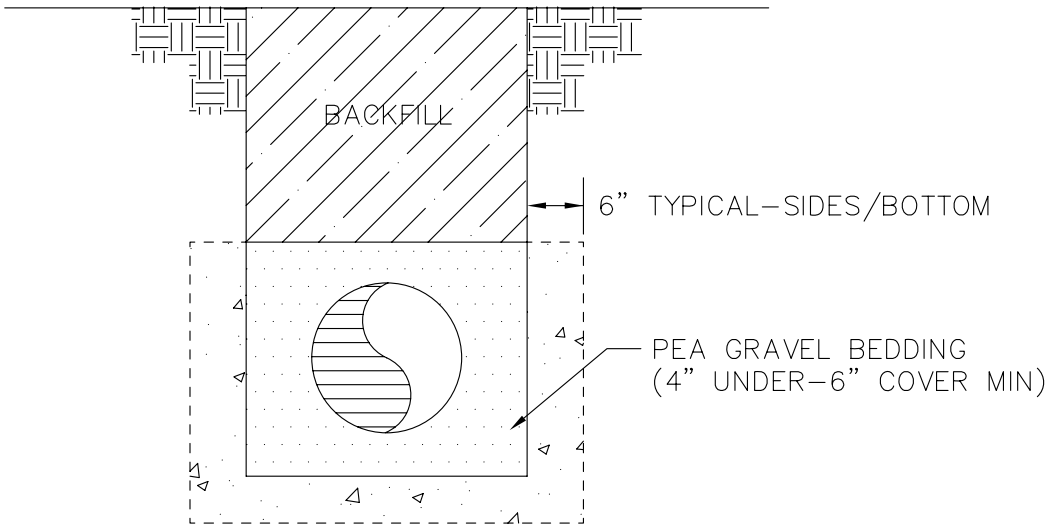
TRENCH (RIGID PIPE)

LAST REVISED 10/23/01

STANDARD PLAN 5–175–002



PLAN



SECTION

LAST REVISED 5/7/97

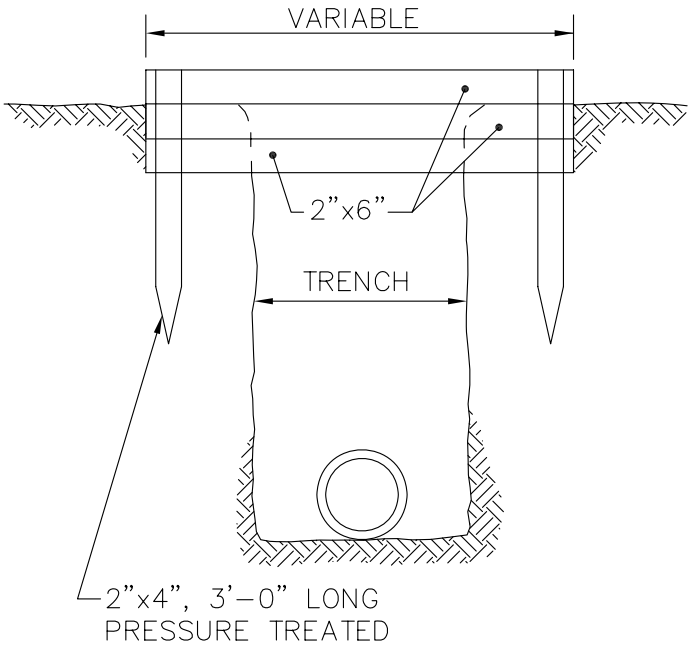
APPROVED BY

MARYSVILLE CITY ENGINEER DATE

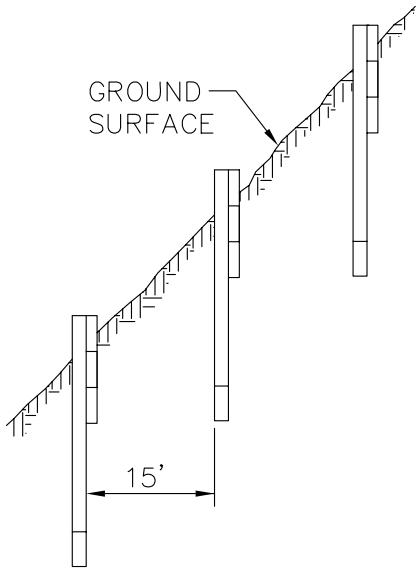
CITY OF Marysville WASHINGTON

SANITARY SEWER DRAINAGE CUT-OFF COLLAR

STANDARD PLAN 5-175-003

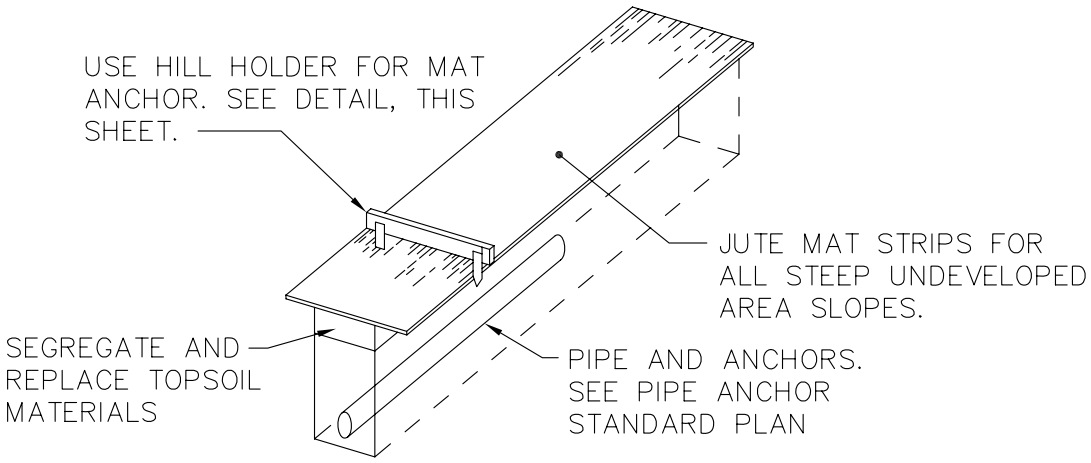


DETAIL OF HILL HOLDER



NOTE: HILL HOLDERS SHALL BE INSTALLED ON ALL STEEP SLOPES 20% OR GREATER AND AT SUCH OTHER LOCATIONS AS DIRECTED BY THE CITY ENGINEER.

TYPICAL HILL HOLDER INSTALLATION



JUTE MAT EROSION PROTECTION

LAST REVISED 8/14/01

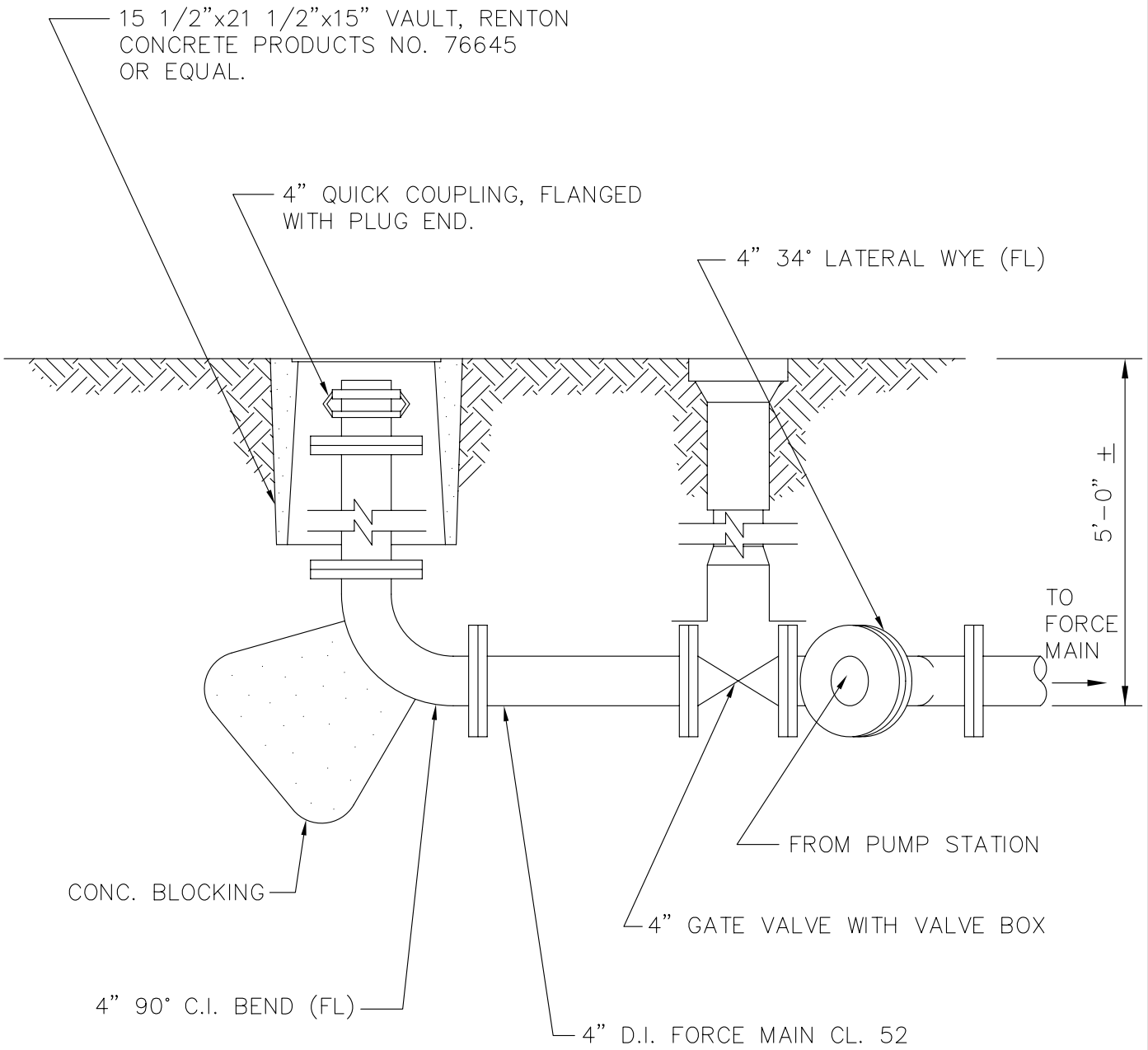
APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

HILL HOLDERS & JUTE MAT EROSION PROTECTION

STANDARD PLAN 5-180-001



EMERGENCY BYPASS CONNECTION

N.T.S.

LAST REVISED 10/23/01

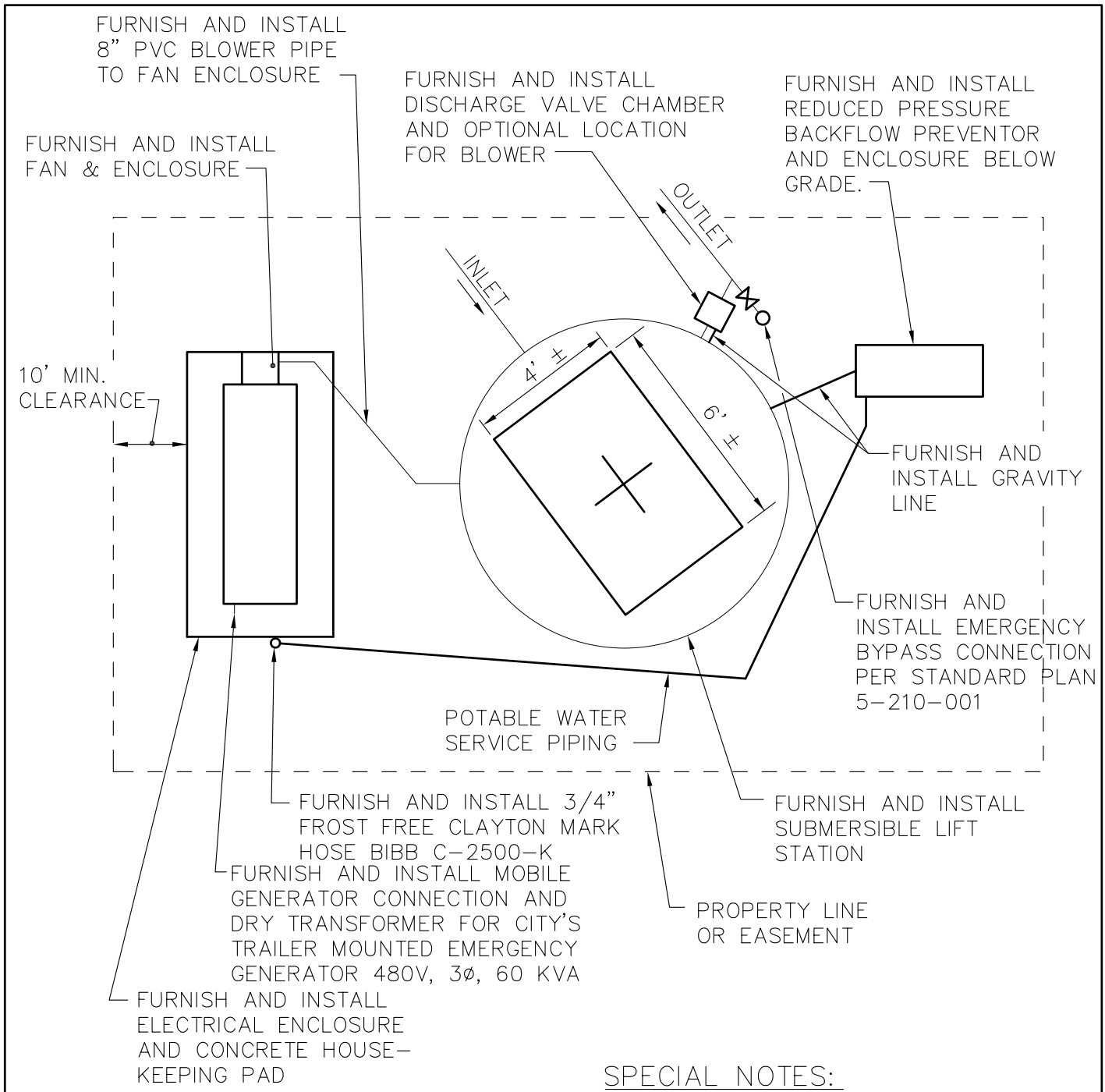
APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

EMERGENCY BYPASS CONNECTION

STANDARD PLAN 5-210-001



SPECIAL NOTES:

1. IF GRADE IS 8% OR MORE, ASPHALT OR CONCRETE IS REQUIRED FOR DRIVEWAY ENTRANCE.
2. AREA WITHIN PROPERTY LINE OR EASEMENT SHALL BE PAVED WITH TYPICAL SECTION OF 3" ACP OVER 4" ATB.

EMERGENCY GENERATOR NOTES

1. SUPPLY CROUSE HINDS AR 2042 522 GENERATOR RECEPTACLE 480V, 3Ø, 4W
2. PROVIDE MANUAL TRANSFER SWITCH IN ELECTICAL PANAL.
3. SIZE TRANSFORMER AND TRANSFORMER SWITCH TO RUN BOTH PUMPS.
4. CHECK TO SEE THAT PHASING MATCHES PORTABLE GENERATOR

LAST REVISED 03/09/05

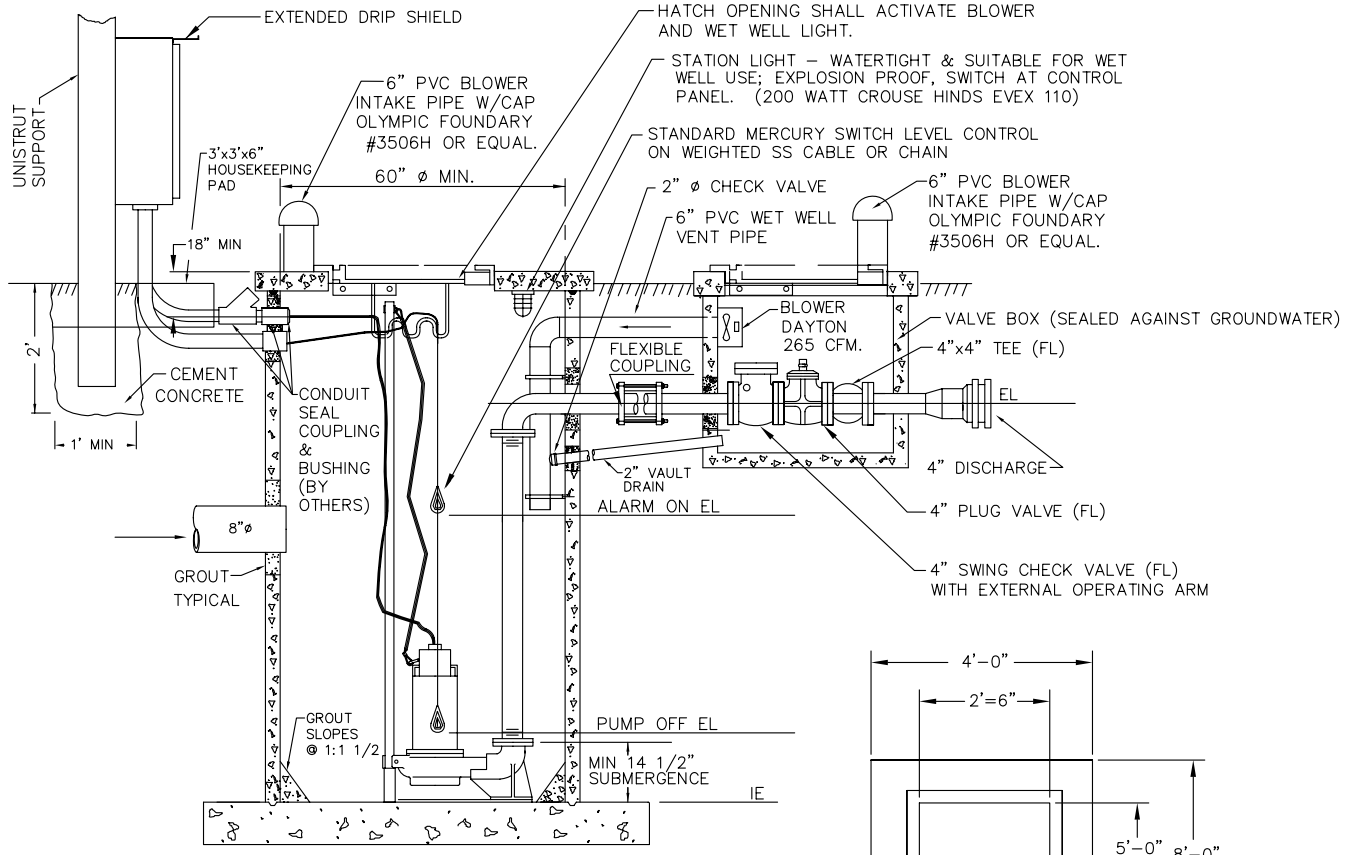
APPROVED BY

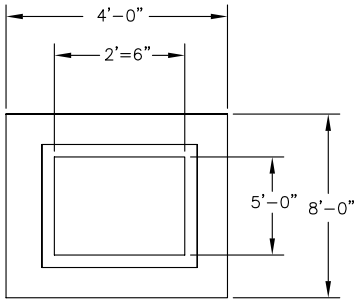
MARYSVILLE CITY ENGINEER DATE

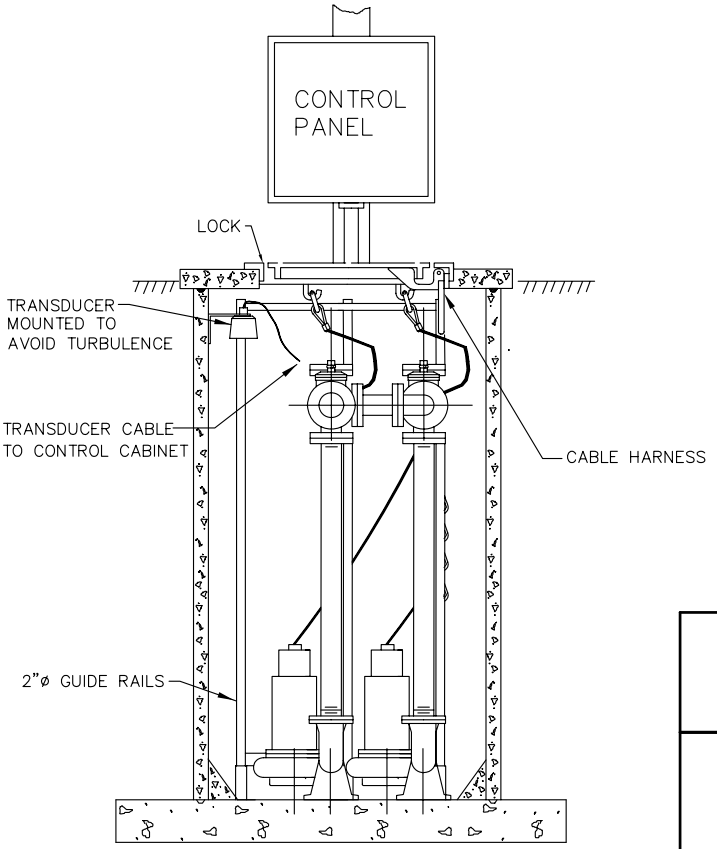
SEWAGE PUMP STATION TYPICAL SITE PLAN

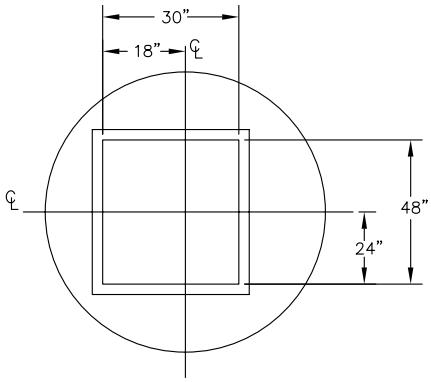
CITY OF Marysville WASHINGTON

STANDARD PLAN 5-500-001









TOP VIEW
DOOR OPENING LOCATION

APPROVED BY

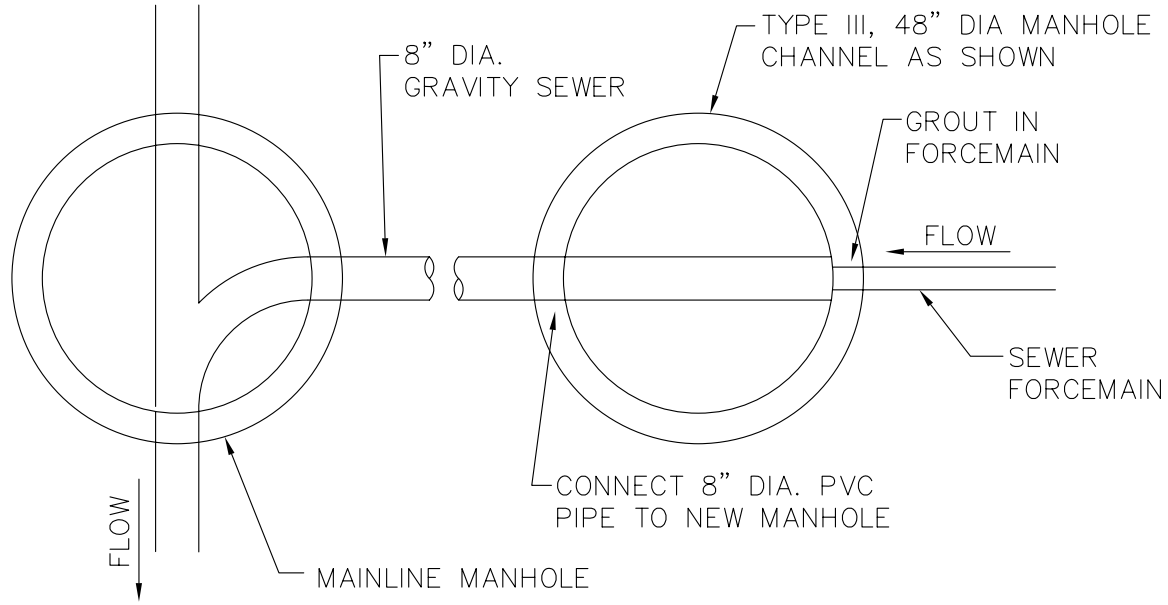
MARYSVILLE CITY ENGINEER DATE

SEWAGE PUMP STATION TYPICAL DETAILS

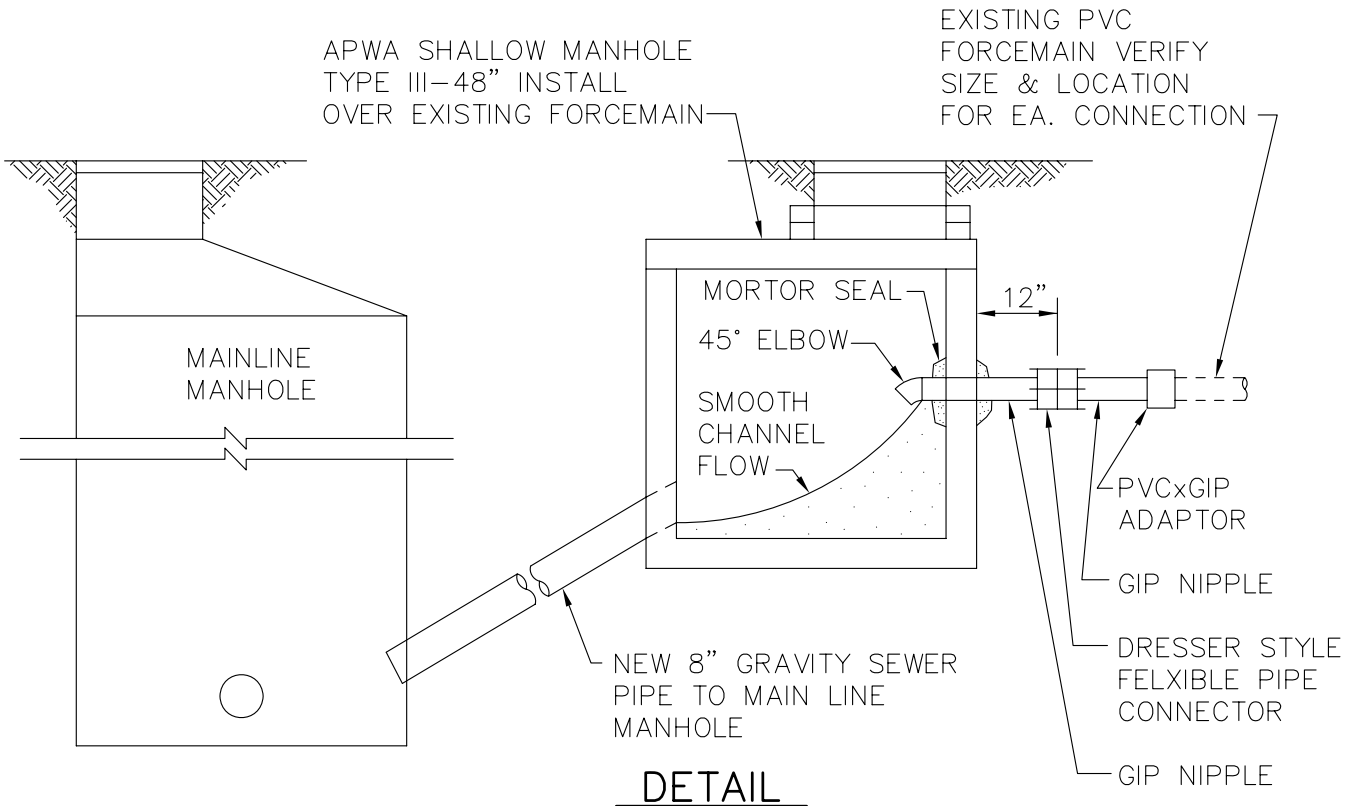
CITY OF Marysville WASHINGTON

LAST REVISED 03/09/05

STANDARD PLAN 5–500–002



PLAN



DETAIL

LAST REVISED 10/23/01

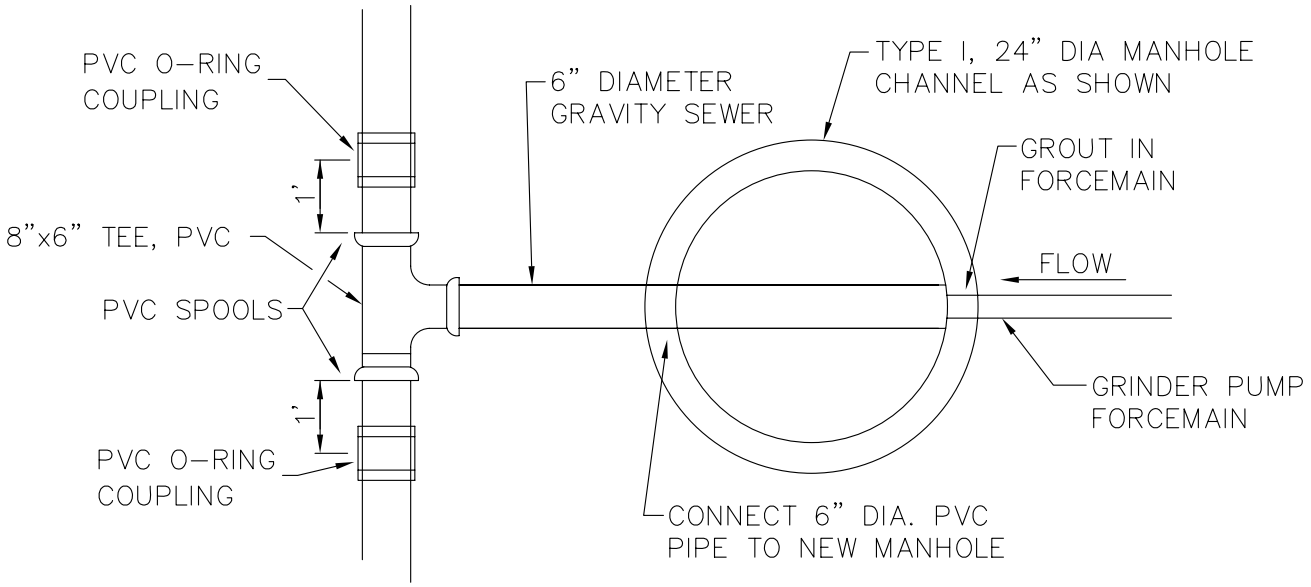
APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

PUMP STATION FORCE–MAIN DISCHARGE MANHOLE

STANDARD PLAN 5–715–001



NOTE:
FERNCO COUPLINGS TO BE USED ONLY ON 6" PIPE DIA. OR LESS. 8' PIPE DIA. AND LARGER MAIN LINES USE PVC O-RING COUPLINGS.

DUCTILE IRON CAN BE USED WITH APPROVED FITTINGS.

APPROVED BY

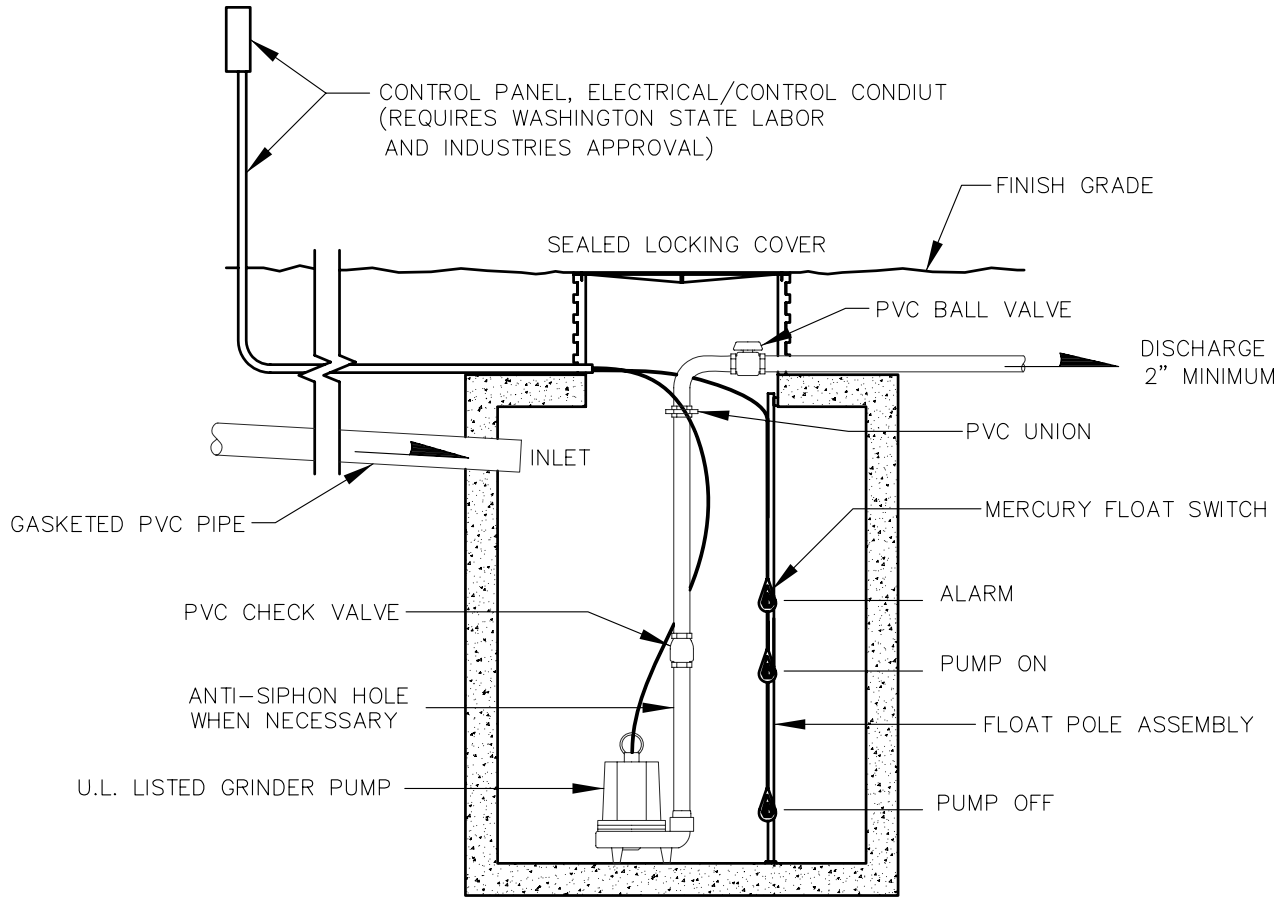
MARYSVILLE CITY ENGINEER DATE

GRINDER PUMP DISCHARGE MANHOLE FOR SINGLE UNIT OR DUPLEX

CITY OF Marysville WASHINGTON

LAST REVISED 03/09/05

STANDARD PLAN 5-715-002



NOTES:

1. MINIMUM TANK REQUIREMENT: 500 GAL., SINGLE CELL, REINFORCED CEMENT CONCRETE
2. PVC DISCHARGE PIPE AND FITTINGS TO BE SCHEDULE 80 OR GREATER
3. SIZING SHEET AND RECORD DRAWING MUST BE ONSITE PRIOR TO APPROVAL
4. WASHINGTON STATE LABOR AND INDUSTRIES ACCEPTANCE OF ELECTRICAL REQUIRED PRIOR TO FINAL APPROVAL
5. THE MINIMUM SIZE OF ANY PUMP OR ANY DISCHARGE PIPE FROM A SUMP HAVING A WATER CLOSET CONNECTED THERETO SHALL NOT BE LESS THAN TWO (2) INCHES. (UNIFORM PLUMBING CODE SECTION 710.3)
6. GROUT ALL PICK HOLES INSIDE AND OUT.

APPROVED BY

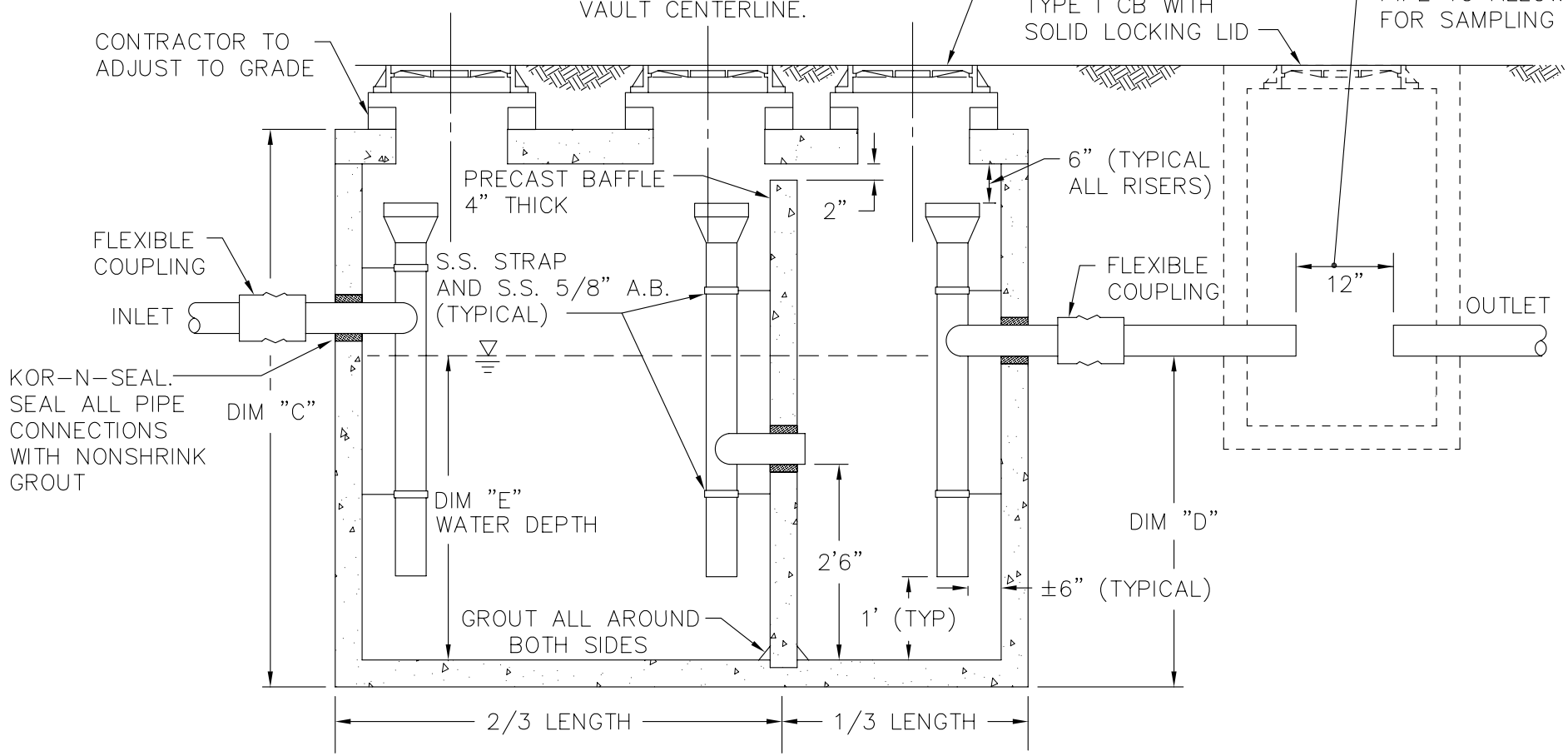
MARYSVILLE CITY ENGINEER DATE

PRIVATE GRINDER PUMP DETAIL

CITY OF Marysville WASHINGTON

LAST REVISED 2/14/05

STANDARD PLAN 5-850-001



SECTION A–A

NOTES:

1. GREASE INTERCEPTORS LOCATED IN A PAVED AREA SHALL COMPLY WITH H–20 LOADING STANDARDS.
2. THE INTERCEPTOR SHALL BE INSTALLED ON LEVEL UNDISTURBED SOIL WITH A TOTAL BEARING CAPACITY OF A MIN OF 2000 LB/SQ FT. THE INTERCEPTOR SHALL BE SET ON A LAYER OF PEA GRAVEL, 12" MIN THICKNESS.
3. P.V.C. PIPE SHALL BE USED THROUGHOUT.
4. SAMPLING STATION WILL BE REQUIRED AT THE DISCRETION OF THE DIRECTOR OF PUBLIC WORKS.

NOTE:
GREASE TRAP NEEDS TO BE ACCESSABLE AT ALL TIMES

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

STANDARD GREASE INTERCEPTOR

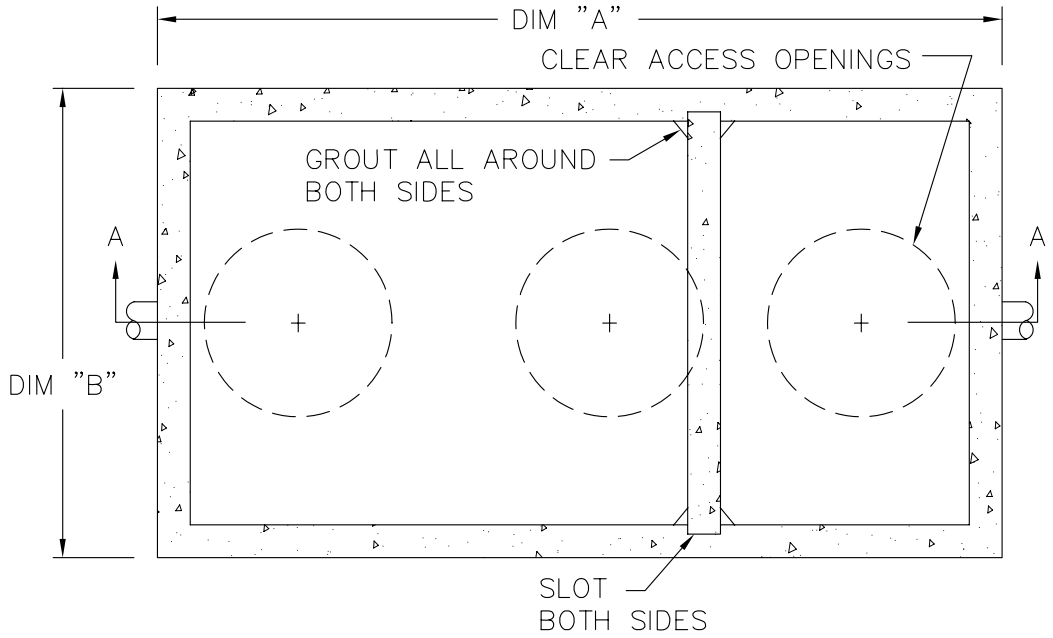
600 TO 7,000 GAL.

SHEET 1 OF 2

STANDARD PLAN 5–900–001

LAST REVISED 02/14/07

GALLON CAPACITY	600	750	950	1000	1250	1500	1750	2000	2500	3000	4000	5000	6000	7000
DIM "A"	7'–0"	7'–0"	7'–0"	9'–0"	9'–0"	11'–2"	11'–2"	12'–8"	12'–8"	13'–1"	13'–1"	15'–7"	19'–11"	19'–11"
DIM "B"	4'–8"	4'–8"	4'–8"	5'–0"	5'–0"	5'–8"	5'–8"	6'–8"	6'–8"	8'–0"	8'–0"	9'–7"	9'–11"	9'–11"
DIM "C"	7'–0"	7'–0"	7'–0"	7'–2"	7'–2"	7'–2"	7'–2"	8'–0"	8'–0"	8'–7"	8'–7"	10'–1/2"	10'–5"	10'–5"
DIM "D"	3'–6"	4'–3"	5'–3"	4'–2"	5'–2"	4'–4"	4'–11"	4'–7"	5'–6"	5'–1"	6'–8"	7'–4"	7'–1"	8'–0"
WATER DEPTH "E"	3'–2"	3'–11"	4'–11"	3'–10"	4'–10"	4'–0"	4'–7"	3'–10"	4'–9"	4'–8"	6'–3"	6'–1"	5'–8"	6'–7"



PLAN VIEW

1. GREASE INTERCEPTORS LOCATED IN A PAVED AREA SHALL COMPLY WITH H–20 LOADING STANDARDS.
2. THE INTERCEPTOR SHALL BE INSTALLED ON LEVEL UNDISTURBED SOIL WITH A TOTAL BEARING CAPACITY OF A MINIMUM OF 2000 LB/SQ FT. THE INTERCEPTOR SHALL BE SET ON A LAYER OF PEA GRAVEL, 12" MINIMUM THICKNESS.
3. P.V.C. PIPE SHALL BE USED THROUGHOUT.

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

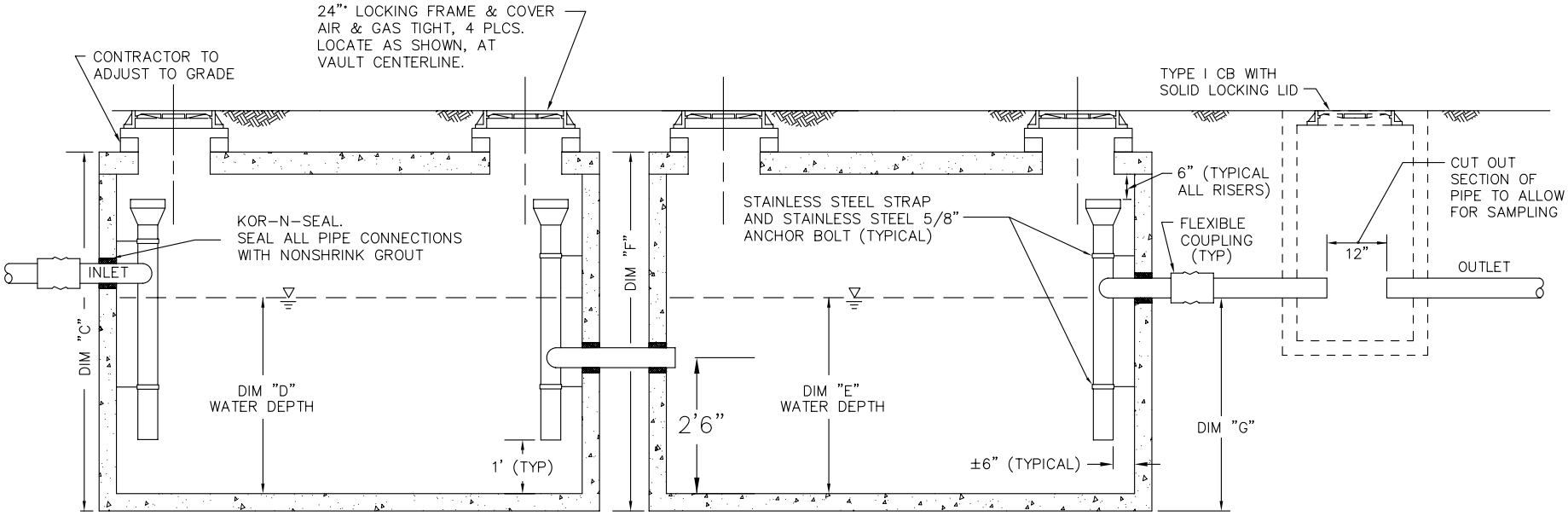
STANDARD GREASE INTERCEPTOR

600 TO 7,000 GAL.

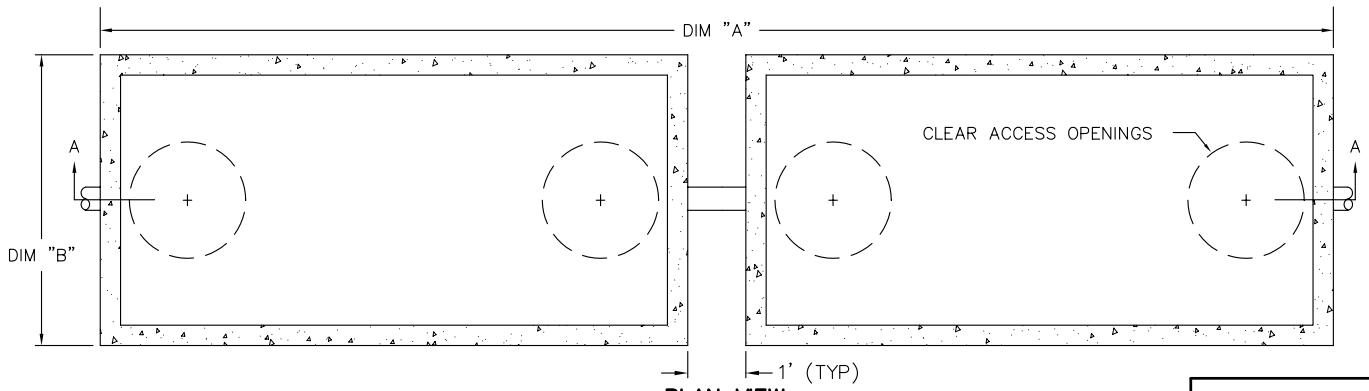
SHEET 2 OF 2

STANDARD PLAN 5–900–001

LAST REVISED 11/30/06



SECTION A-A



PLAN VIEW

SEE STANDARD PLAN
5-900-001 (SHEET 2)
FOR SIZING.

NOTES:

1. GREASE INTERCEPTORS LOCATED IN A PAVED AREA SHALL COMPLY WITH H-20 LOADING STANDARDS.
2. THE INTERCEPTOR SHALL BE INSTALLED ON LEVEL UNDISTURBED SOIL WITH A TOTAL BEARING CAPACITY OF A MIN OF 2000 LB/SQ FT. THE INTERCEPTOR SHALL BE SET ON A LAYER OF PEA GRAVEL, 12" MIN THICKNESS.
3. P.V.C. PIPE SHALL BE USED THROUGHOUT.
4. SAMPLING STATION WILL BE REQUIRED AT THE DISCRETION OF THE DIRECTOR OF PUBLIC WORKS.

LAST REVISED 02/14/07

NOTE:
GREASE TRAP NEEDS TO BE
ACCESSABLE AT ALL TIMES

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

DOUBLE VAULT GREASE INTERCEPTOR

STANDARD PLAN 5-900-002

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Recovery Contract (Sewer) for RMJ Associates, LLC	AGENDA SECTION:
PREPARED BY: Deryl Taylor, Development Services Technician	AGENDA NUMBER:
ATTACHMENTS: • Sewer Recovery Contract • Exhibit A – Vicinity Map • Exhibit B – Parcel Map • Exhibit C – Property/Cost Sheet	APPROVED BY: MAYOR DXL / CAO MS
BUDGET CODE:	AMOUNT:

This Recovery Contract establishes a fair fee for latecomers benefiting from an 8" sewer main extension located on 75th Place NE east of 48th Avenue NE.
The recoverable amount of this contract is $19,624.80.

RECOMMENDED ACTION: Public Works and Community Development staff recommends approval.
COUNCIL ACTION:

COVER SHEET

Return Address:

CITY OF MARYSVILLE
1049 STATE AVENUE
MARYSVILLE, WA 98270

(Please print or type information)

Document Title(s): (or transactions contained therein) RMJ SP Sewer
Recovery Contract for Utility Construction Costs

Grantor(s): (Last name first, then first name and initials)
RMJ Associates, LLC
Petershagen, Gary R.

Grantee(s): (Last name first, then first name and initials)
MARYSVILLE, CITY OF

Legal description: (abbreviated - i.e., lot, block, plat or section, township, range, qtr./qtr.) 75th Ave & 48th Ave

A portion of the NE Qtr of Section 28, T30N, R5E, W.M., Snohomish County, WA.

Reference Number(s) of Documents assigned or released: N/A

Assessor's Property Tax Parcel/Account Number:
003798-002-010-00 & 003798-002-012-00

The Auditor/Recorder will rely on the information provided on the form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein.

After Recording Return to:

CITY OF MARYSVILLE
1049 STATE AVENUE
MARYSVILLE, WA 98270

CITY OF MARYSVILLE
CONTRACT FOR RECOVERY OF UTILITY CONSTRUCTION COSTS
CONTRACT NO. _____

THIS AGREEMENT, entered into by and between the CITY OF MARYSVILLE, a municipal corporation of the State of Washington, hereinafter referred to as "City," and

Name	Address
RMJ Associates, LLC	**P.O. Box 1465** **Marysville, WA 98270**

hereinafter referred to as "Developer."

W I T N E S S E T H:

WHEREAS, the Developer has constructed and installed a **sewer** (water, sewer, or storm drainage) system, including a(n) **8-inch** line and appurtenances situated as follows:

Approximately 143 LF of sewer main located on 75th Place east of 48th Avenue NE.

WHEREAS, the Developer has conveyed said system by Bill of Sale to the City and the City has accepted ownership and maintenance of the same under its sole jurisdiction, subject to a one-year warranty by the Developer; and

WHEREAS, the parties desire to enter into a contract pursuant to Chapter 35.91 RCW providing for reimbursement to the Developer for its construction and installation costs by subsequent users of the system; NOW, THEREFORE,

IN CONSIDERATION of the covenants bargained for and given in exchange, the parties mutually agree as follows:

1. The Developer has furnished or shall furnish the City with an as-built drawing of the installation of the above-referenced system on mylar, 24" x 36" in size, together with receipted bills showing that all charges and expenses incurred in connection with the installation have been paid.

2. The Developer's costs for construction and installation of said utility lines and facilities, including engineering fees, were **$47,753.84**, which have been paid in full by the Developer.

3. The real property described below (or described in the exhibit attached hereto) is benefited by the installation of said utility lines, and is subject to the lien created by this Contract:

Two properties located in NE Section 28, Township 30 North, Range 5 East. Tax parcel #'s 003798-002-010-00 & 003798-002-012-00.

4. The proportionate share of the total cost of the utility lines which may be fairly attributed to serving and benefiting the above-described property, as a whole, rather than serving and benefiting the property of the Developer, is **$19,624.80**.

5. For a period not to exceed fifteen (15) years from the date of this agreement, the City agrees to require the owners of the above-described real estate who hereafter connect to the above-described utility system to pay a fair pro rata share of the cost referred to in paragraph 4 above. This fair pro-rata share shall be determined from the length of the street frontage of the property to be served, which is known as the "front footage charge." This, however, does not include any other capital improvement charges levied by the City, whether it be by square footage of the area served, and/or a flat fee. No property extending beyond the terminus of the above-described system, as of the date said system has been accepted by the City, shall be served by said system unless there is an extension from said terminus which is constructed and financed in accordance with state and local laws and ordinances.

6. The fair pro-rata share is hereby established to be **$163.54** per lineal foot of frontage.

7. No person, firm or corporation shall be granted a permit or be authorized by the City to connect to or use the above-described utility system during said fifteen-year period without first meeting the following conditions:

a. If the property is not within the City limits, the owner thereof must sign an annexation covenant as required by City ordinance.

b. Payment of all applicable connection charges, fees and assessments regularly imposed by City ordinance.

c. Payment of the recovery charge referred to in this Contract.

d. Compliance with all requirements for utility connections which are regularly imposed by City ordinance.

8. The City shall deduct a fee of $50.00 for each utility connection, said fee to be kept by the City to cover the cost of administering this Contract. The City shall then disburse the remaining balance which is collected for each connection to the Developer within thirty (30) days of receipt thereof. If the Developer shall hereafter assign its rights herein, the City shall be provided with a signed copy of such assignment by the Developer. The Developer hereby waives any claim which it or its successors or assigns may have if the City negligently fails to collect a reimbursement charge from a property owner connecting to the utility system.

9. At the end of the fifteen-year period, which shall commence upon the recording of this agreement, this agreement shall terminate in and of itself, notwithstanding that the full amount provided for herein may not have been recovered. Connection charges subsequent to the termination of this agreement shall be governed by ordinance of the City of Marysville, and all such charges shall be paid to the City for its use and benefit.

10. The provisions of this Contract shall not be construed as establishing the City as a public utility in the areas not already connected to the utility system; nor shall this Contract be construed as establishing express or implied rights for any property owner to connect to the City's utility system without first qualifying for such connection by compliance with all applicable City codes and ordinances.

11. The Developer agrees to hold the City harmless from any and all liability resulting from errors in the legal descriptions contained herein, and the City is relieved of all responsibility under this agreement for collecting on parcels not properly included in the legal descriptions set forth in Section 3 of this contract.

12. This Contract shall be recorded in the records of the Snohomish County Auditor, and it shall be binding upon the parties, their heirs, successors and assigns. The Developer agrees to reimburse the City for the recording fee and for all legal fees and other costs associated with the execution and recordation of the agreement.

ATTEST:

By_____
CITY CLERK

APPROVED AS TO FORM:

By_____
CITY ATTORNEY

THE CITY OF MARYSVILLE:

By_____
MAYOR

DEVELOPER:

Gary R. Petershagen, Manager/Member
RMJ Associates, LLC

For Mayor:

STATE OF WASHINGTON)
) ss.
COUNTY OF SNOHOMISH)

I certify that I know or have satisfactory evidence that DENNIS L. KENDALL is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Mayor of the City of Marysville, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED this _____ day of _____, 2005.

_____
_____
(Legibly print name of notary)
NOTARY PUBLIC in and for the State of
Washington, residing at _____
My commission expires _____

For Individual:

STATE OF WASHINGTON)
) ss.
COUNTY OF SNOHOMISH)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that _____ signed this instrument and acknowledged it to be _____ free and voluntary act for the uses and purposes mentioned in the instrument.

DATED this _____ day of _____, 2005.

_____
_____
(Legibly print name of notary)
NOTARY PUBLIC in and for the State of
Washington, residing at _____
My commission expires _____

For Representative:

STATE OF WASHINGTON)
) ss.
COUNTY OF SNOHOMISH)

I certify that I know or have satisfactory evidence that Gary Petershagen is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Manager of RMJ Associates to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED this 24th day of April, 2005.

Belinda Beardsley
(Legibly print name of notary)
NOTARY PUBLIC in and for the State of
Washington, residing at Marysville
My commission expires 6/15/08

BELINDA M. BEARDSLEY
NOTARY PUBLIC
SNOHOMISH COUNTY, WA
MY COMMISSION EXPIRES
JUNE
15
2008

Exhibit A

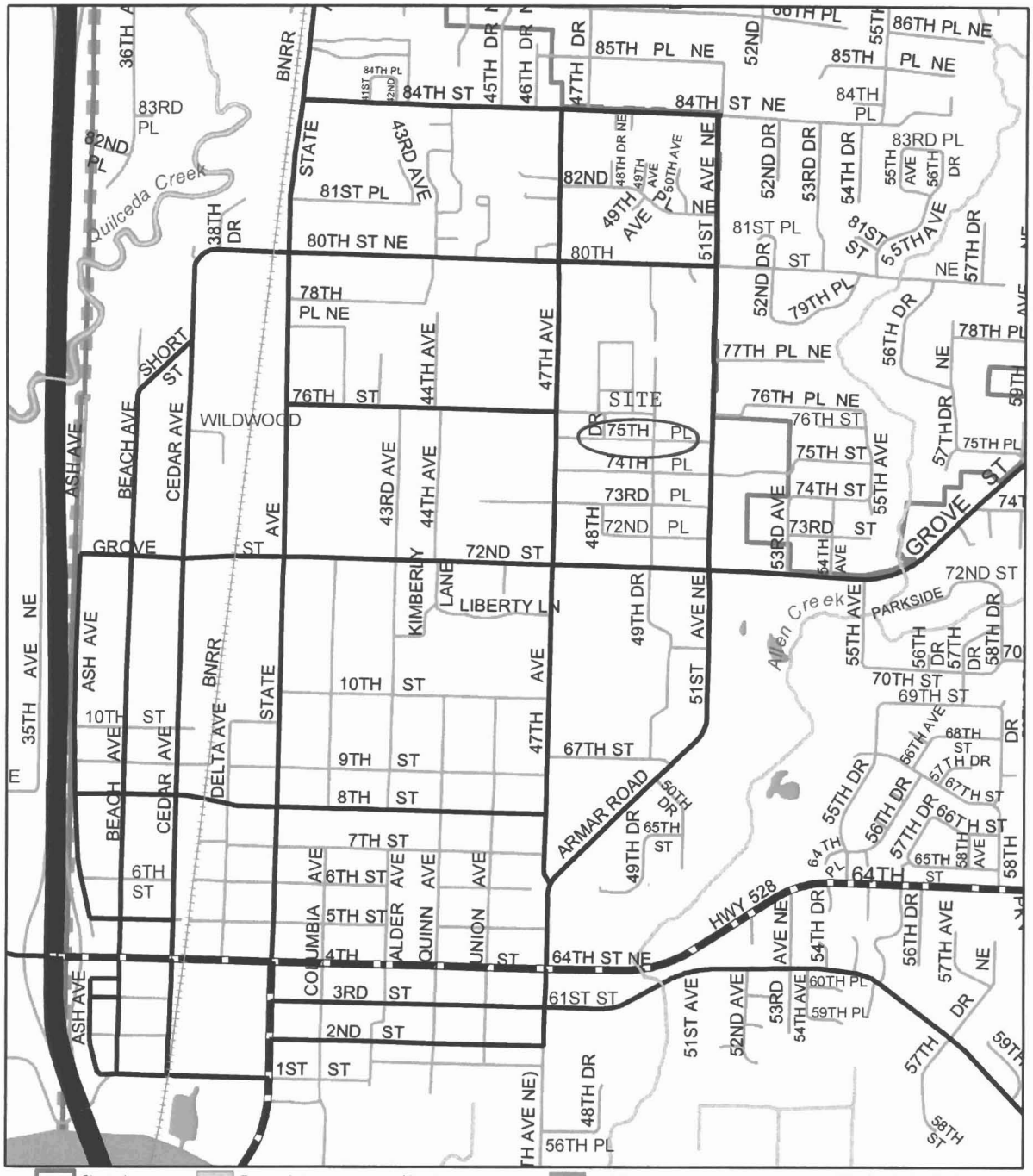
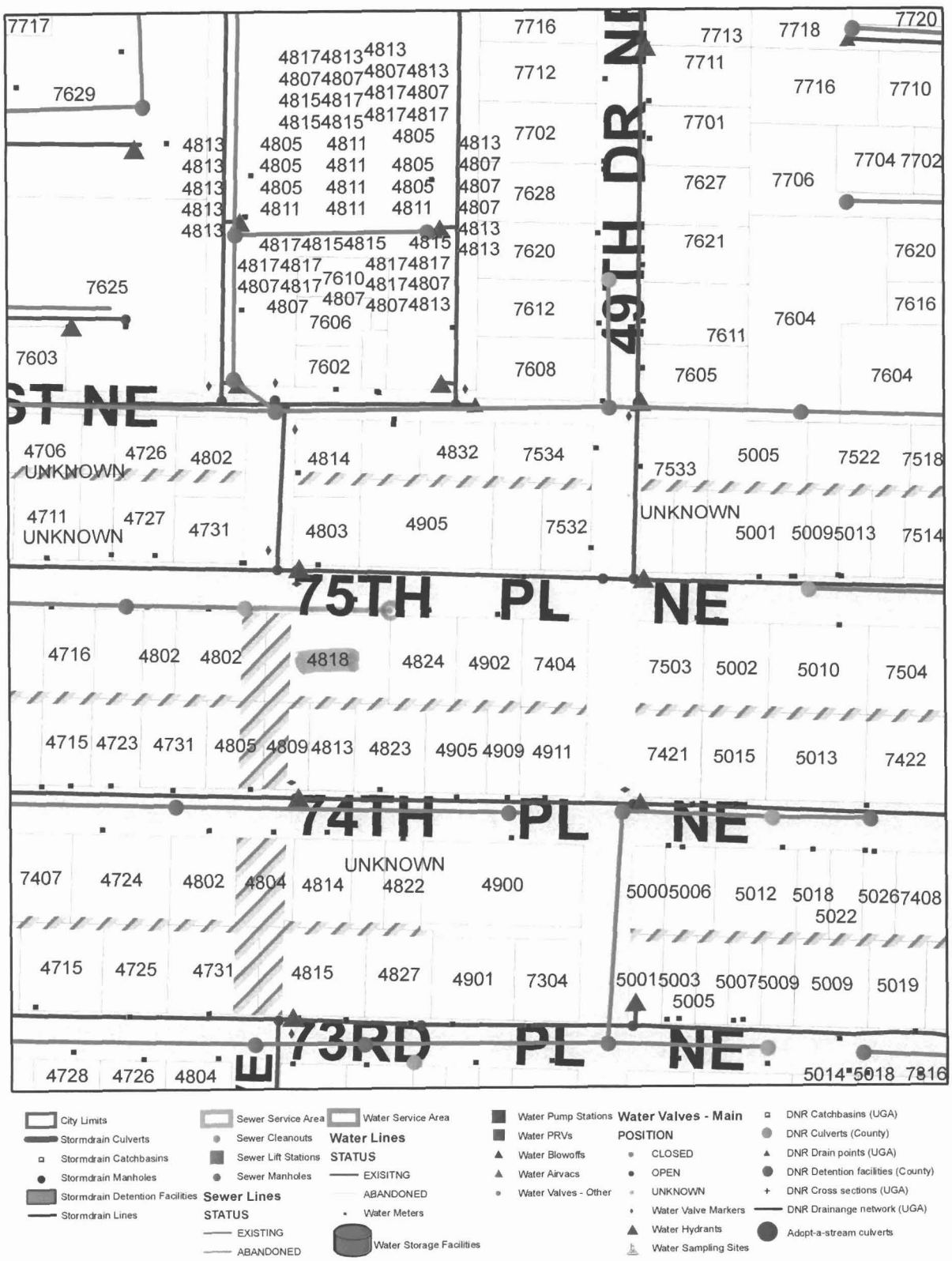


Exhibit B



City Limits
Stormdrain Culverts
Stormdrain Catchbasins
Stormdrain Manholes
Stormdrain Detention Facilities
Stormdrain Lines

Sewer Service Area
Sewer Cleanouts
Sewer Lift Stations
Sewer Manholes
Sewer Lines
STATUS
EXISTING
ABANDONED

Water Service Area
Water Lines
STATUS
EXISITNG
ABANDONED
Water Meters
Water Storage Facilities

Water Pump Stations
Water PRVs
Water Blowoffs
Water Airvacs
Water Valves - Other

Water Valves - Main
POSITION
CLOSED
OPEN
UNKNOWN
Water Valve Markers
Water Hydrants
Water Sampling Sites

DNR Catchbasins (UGA)
DNR Culverts (County)
DNR Drain points (UGA)
DNR Detention facilities (County)
DNR Cross sections (UGA)
DNR Drainange network (UGA)
Adopt-a-stream culverts

Developer's Property
Benefiting Property
Sewer Main

Exhibit C

75th Place NE & 48th Avenue NE (Sewer) – RMJ Associates, LLC

	Owner/Address	Parcel	LF	Cost $163.54/lf	Date Paid
1	Dotson, Wm 4803 75th Place	003798-002-010-00	80	$13,083.20	
2	Dierck, Paul 4905 75th Place	003798-002-012-00	40	$6,541.60	
	Subtotal - **Recoverable**		120	**$19,624.80**	
	Developer's Share			$28,129.04	
	Total Project Cost			$47,753.84	

CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Recovery Contract (Water) for Seattle Pacific Homes, Inc.	AGENDA SECTION:
PREPARED BY: Deryl Taylor, Development Services Technician	AGENDA NUMBER:
ATTACHMENTS: • Water Recovery Contract • Exhibit A – Vicinity Map • Exhibit B – Parcel Map • Exhibit C – Property/Cost Sheet	APPROVED BY: MAYOR CAO
BUDGET CODE:	AMOUNT:

This Recovery Contract establishes a fair fee for latecomers benefiting from an 8" water main located on 79th Avenue at 57th Street for the Plat of Kenley.
The recoverable amount of this Recovery Contract is $18,318.30.

RECOMMENDED ACTION: Public Works and Community Development staff recommends approval.
COUNCIL ACTION:

COVER SHEET

Return Address:

CITY OF MARYSVILLE
1049 STATE AVENUE
MARYSVILLE, WA 98270

(Please print or type information)

Document Title(s): (or transactions contained therein) Kenley Water **Recovery Contract for Utility Construction Costs**
Grantor(s): (Last name first, then first name and initials) **Seattle Pacific Homes, Inc.** **Yu, John**
Grantee(s): (Last name first, then first name and initials) **MARYSVILLE, CITY OF**
Legal description: (abbreviated - i.e., lot, block, plat or section, township, range, qtr./qtr.) 79th Ave & 57th St **A portion of the NE Qtr of Section 35, T30N, R5E, W.M., Snohomish County, WA.**
Reference Number(s) of Documents assigned or released: N/A
Assessor's Property Tax Parcel/Account Number: **005907-000-035-00**
The Auditor/Recorder will rely on the information provided on the form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein.

After Recording Return to:

CITY OF MARYSVILLE
1049 STATE AVENUE
MARYSVILLE, WA 98270

CITY OF MARYSVILLE
CONTRACT FOR RECOVERY OF UTILITY CONSTRUCTION COSTS
CONTRACT NO. _____

THIS AGREEMENT, entered into by and between the CITY OF MARYSVILLE, a municipal corporation of the State of Washington, hereinafter referred to as "City," and

Name	Address
Seattle Pacific Homes, Inc.	**P.O. Box 123** **Marysville, WA 98270**

hereinafter referred to as "Developer."

W I T N E S S E T H:

WHEREAS, the Developer has constructed and installed a **water** (water, sewer, or storm drainage) system, including a(n) **8**-inch line and appurtenances situated as follows:

Approximately 330 LF of 8" offsite water main located on 79th Avenue NE north of 57th Street NE.

WHEREAS, the Developer has conveyed said system by Bill of Sale to the City and the City has accepted ownership and maintenance of the same under its sole jurisdiction, subject to a one-year warranty by the Developer; and

WHEREAS, the parties desire to enter into a contract pursuant to Chapter 35.91 RCW providing for reimbursement to the Developer for its construction and installation costs by subsequent users of the system; NOW, THEREFORE,

IN CONSIDERATION of the covenants bargained for and given in exchange, the parties mutually agree as follows:

1. The Developer has furnished or shall furnish the City with an as-built drawing of the installation of the above-referenced system on mylar, 24" x 36" in size, together with receipted bills showing that all charges and expenses incurred in connection with the installation have been paid.

2. The Developer's costs for construction and installation of said utility lines and facilities, including engineering fees, were **$36,694.70**, which have been paid in full by the Developer.

3. The real property described below (or described in the exhibit attached hereto) is benefited by the installation of said utility lines, and is subject to the lien created by this Contract:

One property located in the NE Quarter of Section 35, Township 30 North, Range 5 East, W.M. Tax parcel #005907-000-035-00.

4. The proportionate share of the total cost of the utility lines which may be fairly attributed to serving and benefiting the above-described property, as a whole, rather than serving and benefiting the property of the Developer, is **$18,318.30**.

5. For a period not to exceed fifteen (15) years from the date of this agreement, the City agrees to require the owners of the above-described real estate who hereafter connect to the above-described utility system to pay a fair pro rata share of the cost referred to in paragraph 4 above. This fair pro-rata share shall be determined from the length of the street frontage of the property to be served, which is known as the "front footage charge." This, however, does not include any other capital improvement charges levied by the City, whether it be by square footage of the area served, and/or a flat fee. No property extending beyond the terminus of the above-described system, as of the date said system has been accepted by the City, shall be served by said system unless there is an extension from said terminus which is constructed and financed in accordance with state and local laws and ordinances.

6. The fair pro-rata share is hereby established to be **$55.51** per lineal foot of frontage.

7. No person, firm or corporation shall be granted a permit or be authorized by the City to connect to or use the above-described utility system during said fifteen-year period without first meeting the following conditions:

a. If the property is not within the City limits, the owner thereof must sign an annexation covenant as required by City ordinance.

b. Payment of all applicable connection charges, fees and assessments regularly imposed by City ordinance.

c. Payment of the recovery charge referred to in this Contract.

d. Compliance with all requirements for utility connections which are regularly imposed by City ordinance.

8. The City shall deduct a fee of $50.00 for each utility connection, said fee to be kept by the City to cover the cost of administering this Contract. The City shall then disburse the remaining balance which is collected for each connection to the Developer within thirty (30) days of receipt thereof. If the Developer shall hereafter assign its rights herein, the City shall be provided with a signed copy of such assignment by the Developer. The Developer hereby waives any claim which it or its successors or assigns may have if the City negligently fails to collect a reimbursement charge from a property owner connecting to the utility system.

9. At the end of the fifteen-year period, which shall commence upon the recording of this agreement, this agreement shall terminate in and of itself, notwithstanding that the full amount provided for herein may not have been recovered. Connection charges subsequent to the termination of this agreement shall be governed by ordinance of the City of Marysville, and all such charges shall be paid to the City for its use and benefit.

10. The provisions of this Contract shall not be construed as establishing the City as a public utility in the areas not already connected to the utility system; nor shall this Contract be construed as establishing express or implied rights for any property owner to connect to the City's utility system without first qualifying for such connection by compliance with all applicable City codes and ordinances.

11. The Developer agrees to hold the City harmless from any and all liability resulting from errors in the legal descriptions contained herein, and the City is relieved of all responsibility under this agreement for collecting on parcels not properly included in the legal descriptions set forth in Section 3 of this contract.

12. This Contract shall be recorded in the records of the Snohomish County Auditor, and it shall be binding upon the parties, their heirs, successors and assigns. The Developer agrees to reimburse the City for the recording fee and for all legal fees and other costs associated with the execution and recordation of the agreement.

ATTEST:

By: _____
CITY CLERK

APPROVED AS TO FORM:

By: _____
CITY ATTORNEY

THE CITY OF MARYSVILLE:

By: _____
MAYOR

DEVELOPER:

_____
John Yu, President
Seattle Pacific Homes, Inc.

For Mayor:

STATE OF WASHINGTON)
) ss.
COUNTY OF SNOHOMISH)

I certify that I know or have satisfactory evidence that DENNIS L. KENDALL is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Mayor of the City of Marysville, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED this _____ day of _____, 20____.

_____
(Legibly print name of notary)
NOTARY PUBLIC in and for the State of
Washington, residing at _____
My commission expires _____

For Individual:

STATE OF WASHINGTON)
) ss.
COUNTY OF SNOHOMISH)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that _____ signed this instrument and acknowledged it to be _____ free and voluntary act for the uses and purposes mentioned in the instrument.

DATED this _____ day of _____, 20____.

_____
(Legibly print name of notary)
NOTARY PUBLIC in and for the State of
Washington, residing at _____
My commission expires _____

For Representative or Company:

STATE OF WASHINGTON)
) ss.
COUNTY OF SNOHOMISH)

I certify that I know or have satisfactory evidence that John Yu is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the president of Seattle Pacific Homes, Inc. to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED this 17th day of April, 20 07.

Laurie R. Schindler
Laurie R. Schindler
(Legibly print name of notary)
NOTARY PUBLIC in and for the State of
Washington, residing at Mukilteo
My commission expires 12-19-09

LAURIE R. SCHINDLER NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES 12-19-09

Exhibit A

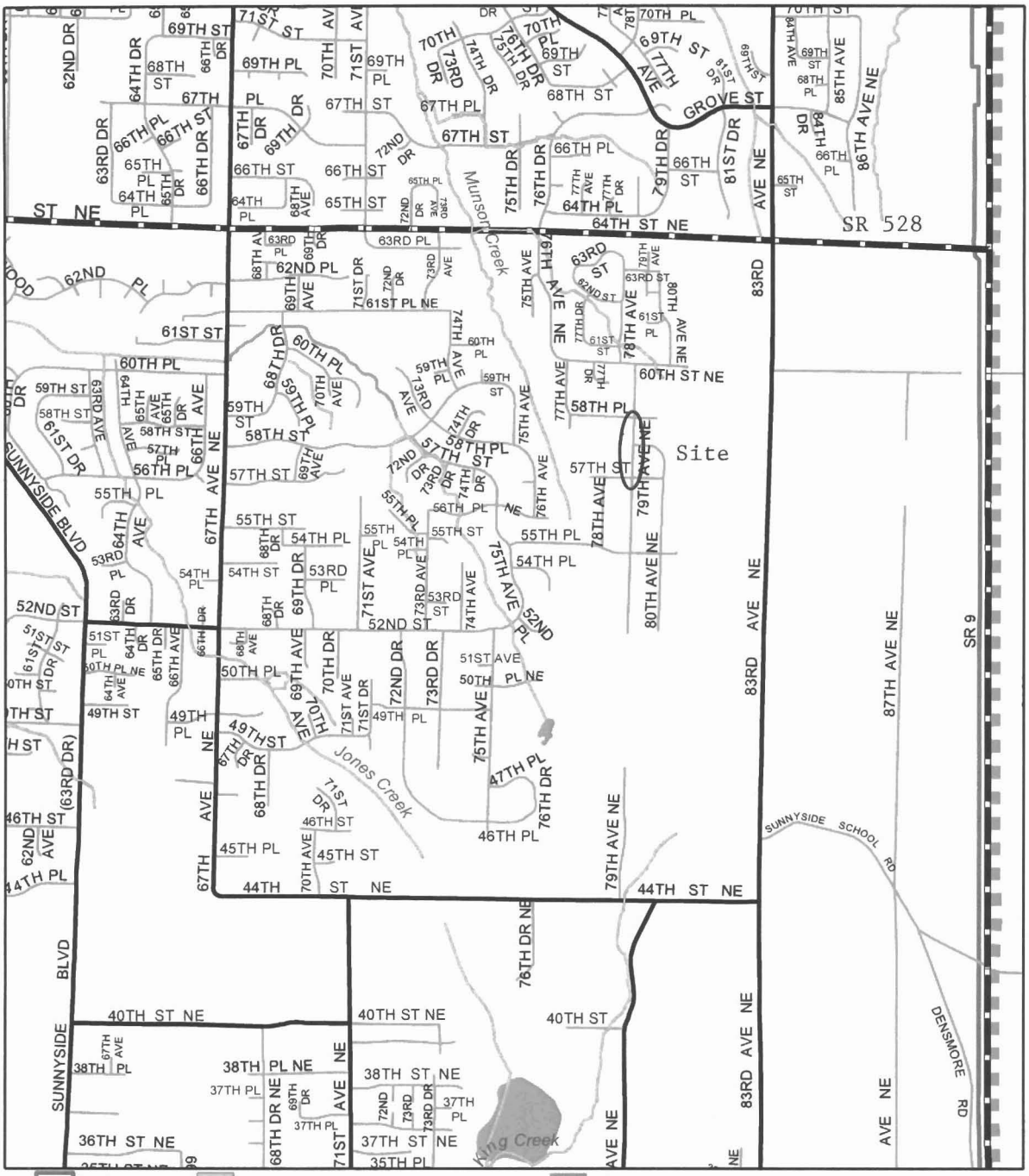
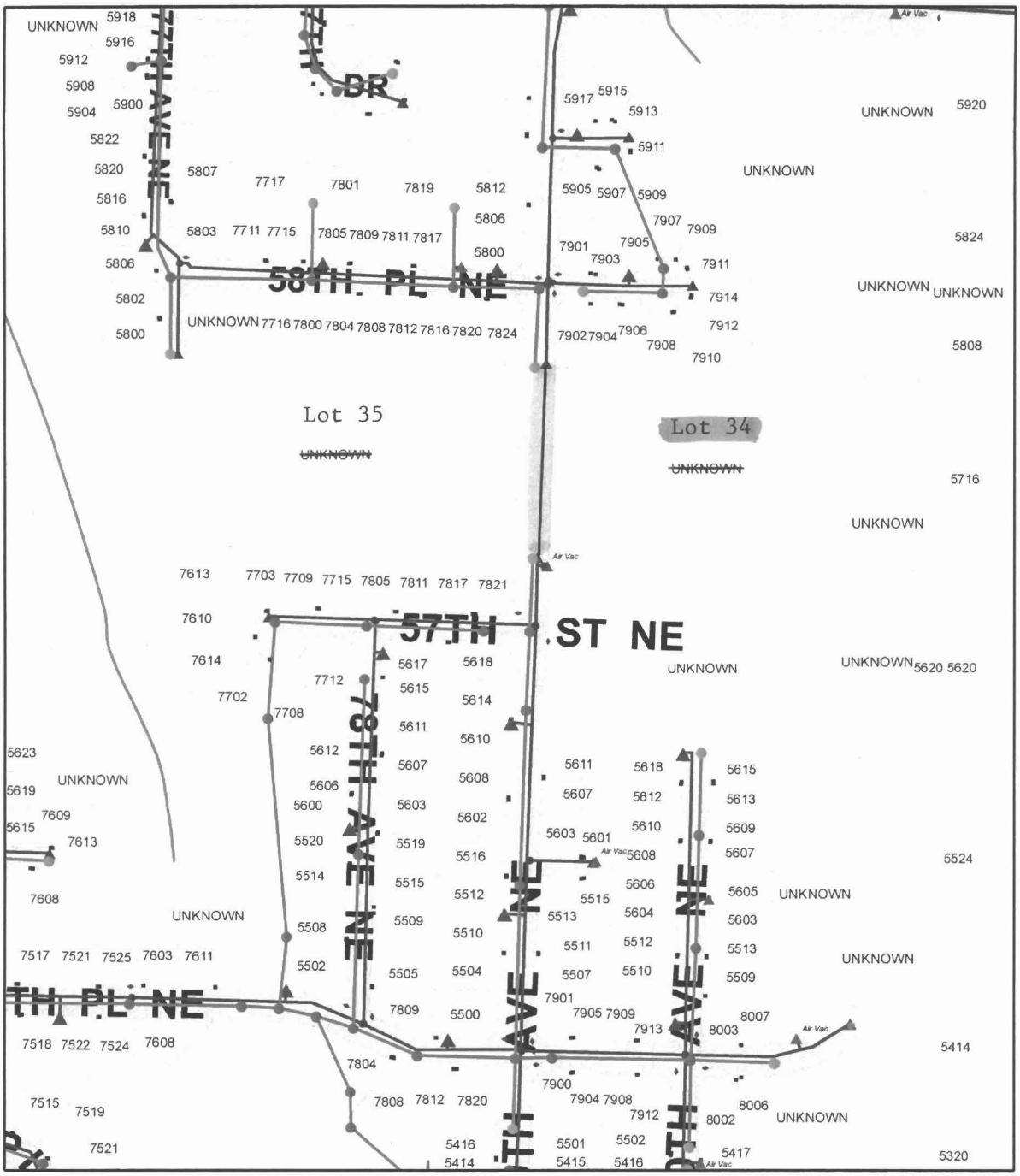


Exhibit B



THE CITY OF MARYSVILLE DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS OF THIS DATA FOR ANY PARTICULAR PURPOSE, EITHER EXPRESSED OR IMPLIED. NO REPRESENTATION OR WARRANTY IS MADE CONCERNING THE ACCURACY, CURRENCY, COMPLETENESS OR QUALITY OF DATA DEPICTED. ANY USER OF THIS DATA ASSUMES ALL RESPONSIBILITY FOR USE THEREOF, AND FURTHER AGREES TO HOLD THE CITY OF MARYSVILLE HARMLESS FROM AND AGAINST ANY DAMAGE, LOSS, OR LIABILITY ARISING FROM ANY USE OF THIS DATA.

Developer's Property
Benefitting Property
Water Main

Exhibit C

Plat of Kenley on 79th Ave at 57th St – Seattle Pacific Homes, Inc.

	Owner/Address	Parcel	LF	Cost $55.51/lf	Date Paid
1	Hegge, Peter Lot 35	005907-000-035-00	330	$18,318.30	
	Subtotal - **Recoverable**		330	**$18,318.30**	
	Developer's Share	005907-000-034-01		$18,376.40	
	Total Project Cost			$36,694.70	

CITY OF MARYSVILLE
Marysville, Washington

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF MARYSVILLE, WASHINGTON, AMENDING THE CITY'S DEVELOPMENT REGULATIONS RELATED TO LOW IMPACT DEVELOPMENT AND AMENDING CHAPTERS 12.02A, 14.15, 14.16, 14.17, 19.06, 19.16, 19.24, 19.28, 20.12, AND 20.24, AND ESTABLISHING A NEW CHAPTER 19.49, OF THE MARYSVILLE MUNICIPAL CODE.

WHEREAS, the City Council of the City of Marysville finds that from time to time it is necessary and appropriate to review and revise the City's regulations governing development, such as those set forth in the City's Streets and Sidewalks Code (Title 12 MMC), Water and Sewers Code (Title 14 MMC), Zoning Code (Title 19 MMC), and Subdivision Code (Title 20 MMC); and

WHEREAS, the City's Planning Commission is recommending that the City adopt development regulations related to low impact development in order to encourage developers to utilize more flexible land use development approaches, which can result in projects that accomplish the goals of the Comprehensive Plan and that further the public interest of the City and its citizens; and

WHEREAS, the amendments proposed for adoption in this ordinance are consistent with the following required findings of MMC 19.56.030:

(1) The amendments are consistent with the purposes of the Comprehensive Plan;
(2) The amendments are consistent with the purpose of Title 19 MMC;
(3) There have been significant changes in the circumstances to warrant a change;
(4) The benefit or cost to the public health, safety and welfare is sufficient to warrant the action; and

WHEREAS, the Planning Commission discussed the above-referenced amendments during public meetings February 13 and February 27, 2007; and

WHEREAS, after providing notice to the public as required by law, on February 27, 2007, the Marysville Planning Commission held a public hearing on proposed changes to the City's development regulations; and

WHEREAS, at a public meeting on April 14, 2007, the Marysville City Council reviewed and considered the amendments to the City's development regulations proposed by the Marysville Planning Commission; and

WHEREAS, the City of Marysville has submitted the proposed development regulation revisions to the Washington State Department of Community, Trade, and Economic Development as required by RCW 36.70A.106; and

WHEREAS, the City has complied with the requirements of the State Environmental Policy Act, Ch.43.21C RCW, (SEPA) by adopting a determination of non-significance for the adoption of the proposed revisions to the City's development regulations;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON DO ORDAIN AS FOLLOWS:

Section 1: Chapter 12.02A MMC is hereby amended by amending Subsection (4) of MMC 12.02A.030, Subsection (1) of MMC 12.02A.090, and Subsection (3) of 12.02A.100 to read as follows:

12.02A.030 General specifications.

...

(4) Existing drainage ditches, culverts, etc., shall be kept clean and protected from impacts that may jeopardize their function at all times. Temporary diversion of any drainage system will not be permitted without the consent of the city engineer. Any drainage culvert tile, catch basins, manholes, bioretention facility, pervious pavement, etc., disturbed by excavation or other construction activities shall be replaced with new materials or repaired as directed by the city engineer.

...

12.02A.090 Frontage improvements required.

(1) The term "frontage improvements" as used in this section shall refer to the construction, reconstruction, or repair of the following facilities along the full abutting public street frontage of property being developed:

(a) Curbs, gutters, and sidewalks, except that curbs and gutters may be waived by the city engineer when street drainage will be managed via a bioretention facility within the right-of-way. Flow through curbs may be required by the City Engineer;

(b) Underground storm drainage facilities, except that surface facilities may be approved by the city engineer pursuant to MMC 14.15.061;

c) Patching the street from its preexisting edge to the new curb line;

(d) Overlayment of the existing public street to its centerline.

All such frontage improvements shall be constructed to city specifications.

...

12.02A.100 Minimum access requirements.

No development permits or short plats shall be issued or approved by the city for any lot, parcel, or tract which does not comply with the following minimum access requirements:

...

(3) Each and every lot having access to a private road shall have responsibility for maintenance of such private road and associated stormwater drainage facilities unless specifically designated for maintenance by the City.

...

Section 2. Ch. 14.15 MMC is hereby amended by amending MMC 14.15.020 and Subsections (2) and (7) of MMC 14.15.050 and adding MMC 14.15.062 to read as follows:

14.15.020 Definitions.

For the purpose of this chapter, certain terms, phrases, words and their derivatives shall be construed as specified in this section. Words used in the singular include the plural, and the

plural the singular. The words "shall," "will" and "must" are mandatory; the words "should" and "may" are permissive. When any definition in this chapter conflicts with definitions in the manual or any other ordinance of the city, that which provides more environmental protection shall apply unless specifically provided otherwise in this chapter.

(1) "Adjustment" means a project proposal that has received approval as providing substantially equivalent environmental protection while maintaining the objectives of safety, function, and facility maintenance based upon sound engineering.

(2) "Applicant" means any person who has applied for a development permit or approval.

(3) "Basin plan" means a plan that assesses, evaluates, and proposes solutions to existing and potential future impacts to the beneficial uses of, and the physical, chemical, and biological properties of waters of the state within a basin.[1] A plan should include but not be limited to recommendations for:

(a) Storm water requirements for new development and redevelopment;

(b) Capital improvement projects;

(c) Land use management through identification and protection of critical areas, comprehensive land use and transportation plans, zoning regulations, site development standards, and conservation areas;

(d) Source control activities including public education and involvement, and business programs;

(e) Other targeted storm water programs and activities, such as maintenance, inspections, and enforcement;

(f) Monitoring; and

(g) An implementation schedule and funding strategy.

(4) "Best management practices (BMPs)" refers to the schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices, that when used singly or in combination, prevent or reduce pollution of water and have been approved by the engineer. BMPs include, but are not limited to, infiltration, retention and/or detention, dispersion, amended soils, biofiltration facilities, bioretention facilities, open ditches with check dams, filter fabric strips, oil/water separators, wet ponds, constructed wetlands, erosion and sedimentation control, and other treatment/abatement facilities.

(5) "Biofiltration facility" means the simultaneous processes of filtration, absorption, and biological uptake of pollutants in storm water to take place when runoff flows over and through vegetated treatment facilities.

(6) "Bioretention" means a terrestrial-based (upland as opposed to wetland), water quality and water quantity control practice using the chemical, biological, and physical properties of plants, microbes, and soils for removal of pollutants from storm water runoff. Some of the processes that may take place in a bioretention facility include: sedimentation, absorption, filtration, volatilization, ion exchange, decomposition, phytoremediation, bioremediation, and storage capacity. Bioretention may be designed to help mimic predevelopment hydrology.

(7) "City planner" also means community development director.

(8) "Clearing" means the destruction and removal of vegetation by manual, mechanical or chemical methods.

(9) "Comprehensive drainage plan" means a detailed analysis adopted by the city which compares the capabilities and needs for runoff accommodation due to various combinations of development, land use, structural and nonstructural management alternatives. The plan recommends the form, location, and extent of quantity and quality control measures which would

satisfy legal constraints, water quality standards and community standards and identifies the institutional and funding requirements for plan implementation.

(10) "Computations" means calculations, including coefficients and other pertinent data made to determine the drainage plan with flow of water given in cubic feet per second (cfs).

(11) "Construction storm water pollution prevention plan" or "construction SWPPP" means a plan that includes a narrative, drawings, and details for describing construction practices, stabilization techniques, and structural BMPs that are to be implemented to prevent erosion and sedimentation, and control other pollutants at a construction site.

(12) "Conveyance system" means the drainage facilities, both natural and manmade, which collect, contain, and provide for the flow of surface and storm water from the highest points on the land down to a receiving water. The natural elements of the conveyance system include swales and small drainage courses, streams, rivers, lakes, and wetlands. The human-made elements of the conveyance system include gutters, ditches, pipes, channels, and most retention/detention facilities.

(13) "Current conditions" means the state, status, or conditions (land use, impervious surfaces, topography, soils, and surface water flows) present of the subject property at the time the analysis is conducted.

(14) "Cut and fill" means the process of earth moving by excavating part of an area and using the excavated material for adjacent embankments or fill areas.

(15) "Department" means the public works or community development department of the city of Marysville, as appropriate for capital or private development projects.

(16) "Design storm" means a rainfall (or other precipitation) event or pattern of events for use in analyzing and designing drainage facilities, specifying both the return period in years and the duration in hours.

(17) "Detention" means the release of storm water runoff from the site at a slower rate than it is collected by the storm water drainage system, the difference being held in temporary storage.

(18) "Detention facility" means an above or below ground facility, such as a pond or tank, that temporarily stores storm water runoff and subsequently releases it at a slower rate than it is collected by the drainage facility system. There is little or no infiltration of stored storm water.

(19) "Developed conditions" means the state, status, or condition of the subject property at the time the proposed project has been completed, which may include existing buildings, impervious areas, and topography as is.

(20) "Developer" means the individual(s) or corporation(s) or governmental agency(ies) applying for the permits or approvals described in MMC 14.15.030.

(21) "Development" means any artificial change to property, including but not limited to building or other structures, mining, dredging, filling, all land-disturbing activities, clearing, grading, landscaping, paving, excavation, or drilling operations, any activity that requires a permit or approval, including but not limited to a building permit, grading permit, shoreline substantial development permit, conditional use permit, unclassified use permit, zoning variance or reclassification, planned unit development, subdivision, short subdivision, master plan development, building site plan, or right-of-way use permit.

(22) "Developmental coverage" means all developed areas within the subject property including but not limited to rooftops, driveways, carports, accessory buildings, parking areas, and any other impervious surfaces. During construction, "development coverage" includes the above in addition to the full extent of any alteration of previously occurring soils, slope, or vegetation due to grading, temporary storage, access areas, or other short-term causes.

(23) "Director of public works" or "director" means the director of the public works department or his/her designee.

(24) "Drainage area" means the watershed (acreage) contributing surface water runoff to and including the subject property.

(25) "Drainage site" means a geographical area that serves a common or combined use including but not limited to shopping malls and strips, condominiums, apartment complexes, office parks, and housing tracts. A site may include one or more parcels and/or include one or more buildings. See also "Development."

(26) "Drainage system" means the system of collecting, conveying, and storing surface and storm water runoff. Drainage facilities shall include but not be limited to all surface and storm water runoff conveyance and containment facilities including streams, pipelines, channels, ditches, swamps, lakes, wetlands, closed depressions, infiltration facilities, retention/detention facilities, erosion/sedimentation control facilities, and other drainage structures and appurtenances, both natural and manmade.

(27) "Drainage treatment/abatement facilities" means any facilities installed or constructed in conjunction with a drainage plan for the purpose of treating urban runoff to improve water quality, excluding retention or detention facilities.

(28) "Effective impervious area" means those impervious surfaces that are connected via sheet flow or discrete conveyance to a drainage system.

(29) "Engineer" means the city engineer or development services manager, as designated for enforcement of capital or private development activities, of Marysville.

(30) "Environmentally sensitive areas" means areas defined as such by the Marysville sensitive areas ordinance.

(31) "Erosion" means the wearing away of the land surface by running water, wind, ice or other geological agents, including such processes as gravitational creep, and the detachment and movement of soil or rock fragments by water, wind, ice or gravity.

(32) "Erosion and sediment control" means any temporary or permanent measures taken to reduce erosion, control siltation and sedimentation, and ensure that sediment-laden water does not leave the site.

(33) "Excavation" means the mechanical removal of earth material.

(34) "Exception" means relief from specific mandates of a minimum requirement.

(35) "Fill" means a deposit of earth material placed by artificial means.

(36) "Forest practice" means any activity conducted on or directly pertaining to forest land and relating to growing, harvesting, or processing timber, including but not limited to:

(a) Road and trail construction;

(b) Harvesting, final and intermediate;

(c) Pre-commercial thinning;

(d) Reforestation;

(e) Fertilization;

(f) Prevention and suppression of diseases and insects;

(g) Salvage of trees; and

(h) Brush control.

(37) "Grade" means the slope of a road, channel or natural ground, the finished surface of a canal bed, roadbed, top of embankment, or bottom of excavation; any surface prepared for the support of construction such as paving or the laying of a conduit.

(38) "Existing grade" means the grade prior to grading.

(39) "Rough grade" means the stage at which the grade approximately conforms to the approved plan.

(40) "Finish grade" means the final grade of the site, which conforms to the approved plan.

(41) "Grading" or "grading activity" means any excavating, filling, or grading or combination thereof.

(42) "Ground water" means water in a saturated zone or stratum beneath the surface of land or a surface water body.

(43) "Illicit discharge" means all non-storm water discharges to storm water drainage systems that cause or contribute to a violation of state water quality, sediment quality, or ground water quality standards, including but not limited to sanitary sewer connections, industrial process water, interior floor drains, car washing, and gray water systems.

(44) "Impervious areas" means that hard surface area which either prevents or retards the entry of water into the soil mantle and/or causes water to run off the surface in greater quantities or at an increased rate of flow from that present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oil, macadam, or other surfaces which similarly impede the natural infiltration of surface and storm water runoff. Open, uncovered retention/detention facilities shall not be considered as impervious surfaces for the purposes of this chapter.

(45) "Interflow" means that portion of rainfall that infiltrates into the soil and moves laterally through the upper soil horizons until intercepted by a stream channel or until it returns to the surface for example, in a roadside ditch, wetland, spring or seep.

(46) "Land clearing" or "clearing" means the destruction or removal of vegetation from a site by physical, mechanical, chemical or other means. This does not mean mowing, landscape maintenance or pruning consistent with accepted horticultural and arboricultural practices, which does not impair the health or survival of the trees and associated vegetation.

(47) "Land-disturbing activities" means any activity that disturbs or alters land surface including clearing and grading.

(48)"LID Technical Guidance Manual" means the January 2005 Low Impact Development Technical Guidance Manual for Puget Sound, published by the Puget Sound Action Team and the Washington State University Pierce County Extension.

(49) "Lowest floor" means the lowest enclosed area (including basement) of a structure. An area used solely for parking of vehicles, building access, or storage is not considered a building's lowest floor; provided, that the enclosed area meets all of the structural requirements of the flood hazard standards.

(50) "Manual" refers to the Washington Department of Ecology's "Storm Water Management Manual for Western Washington," as amended.

(51) "Native vegetation" means vegetation comprised of plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and which reasonably could have been expected to naturally occur on the site. Examples include trees such as Douglas fir, western hemlock, western red cedar, alder, big-leaf maple, and vine maple; shrubs such as willow, elderberry, salmonberry, and salal; and herbaceous plants such as sword fern, foam flower, and fireweed.

(52) "Natural location" of drainage systems refers to the location of those channels, swales, and other natural conveyance systems as defined by the first documented topographic contours existing for the subject property, either from maps or photographs, or such other means as appropriate.

(53) "New development" means the following activities: land-disturbing activities; structural development, including construction, installation, or expansion of building or other structures; installation of impervious surfaces, and subdivisions or short plats.

(54) "On-site storm water management BMPs" means site development techniques that serve to infiltrate, disperse, and retain storm water runoff on-site.

(55) "Parcel" means a tract or plot of land of any size, which may or may not be subdivided or improved.

(56) "Permanent erosion and sediment control" means the continuous on-site and off-site control measures that are needed to prevent accelerated erosion, sedimentation or related pollution from occurring after completion of the grading activity or the construction project.

(57) "Permanent storm water control (PSC) plan" means a plan which includes permanent BMPs for the control of pollution from storm water runoff after construction and/or land-disturbing activity has been completed.

(58) "Person" means any individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, agency of the state, or local government unit, however designated.

(59) "Planned residential developments" refers to residential developments which are planned and/or developed in several stages but submitted together for approvals, and which typically consist of clusters of structures interspersed with areas of common open spaces (refer to Chapter 19.48 MMC).

(60) "Pollutant" shall mean any substance which, when added to water, would contaminate or alter the chemical, physical, or biological properties of any waters of the city's drainage system or of the state. This includes a change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the city's drainage system or of the state as will or is likely to create a nuisance. It also includes any substance which renders such waters harmful, detrimental, or injurious to the public health, safety, or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial use, or to livestock, wild animals, birds, fish, or other aquatic life.

(61) "Pollution" means contamination or other alteration of the physical, chemical or biological properties of waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state and will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreation or other legitimate beneficial uses, or to livestock, wild animals, birds, fish, or other aquatic life.

(62) "Pollution-generating impervious surface (PGIS)" means those impervious surfaces considered to be a significant source of pollutants in storm water runoff. Such surfaces include those which are subject to: vehicular use; industrial activities; or storage of erodible or leachable materials, wastes, or chemicals, and which receive direct rainfall or the run-on or blow-in of rainfall. Erodible or leachable materials, wastes, or chemicals are those substances which, when exposed to rainfall, measurably alter the physical or chemical characteristics of the rainfall runoff. Examples include erodible soils that are stockpiled, uncovered process wastes, manure, fertilizers, oily substances, ashes, kiln dust, and garbage dumpster leakage. Metals roofs are also considered to be PGIS unless they are coated with an inert, nonleachable material (e.g., baked-on enamel coating).

A surface, whether paved or not, shall be considered subject to vehicular use if it is regularly used by motor vehicles. The following are considered regularly used surfaces: roads, unvegetated

road shoulders, bike lanes within the traveled lane of a roadway, driveways, parking lots, unfenced fire lanes, vehicular equipment storage yards, and airport runways.

The following are not considered regularly used surfaces: paved bicycle pathways separated from and not subject to drainage from roads for motor vehicles, fenced fire lanes, and infrequently used maintenance access roads.

(63) "Pollution-generating pervious surface (PGPS)" means any nonimpervious surface subject to use of pesticides, fertilizers, or loss of soil.

(64) "Private drainage system" means drainage systems located on private property and designed to discharge directly as through pipes, channels, etc., or indirectly as sheet flow, subsurface flow, etc., into the city's drainage system.

(65) "Project site" means that portion of a property, properties, or right-of-way subject to land-disturbing activities, new impervious surfaces, or replaced impervious surfaces.

(66) "Public drainage system" means that portion of the drainage system of the city located on public right-of-way, easements or other property owned by the city, and those portions of private drainage systems operated and maintained by the city.

(67) "Receiving waters" means bodies of water or surface water systems receiving water from upstream manmade (or natural) systems. For the purpose of this chapter, receiving waters are Ebey Slough and the Snohomish River.

(68) "Redevelopment" means, on an already developed site, the creation and/or addition of impervious surfaces, structural development including construction, installation, or expansion of a building or other structure, and/or replacement of impervious surface that is not part of a routine maintenance activity, and land-disturbing activities associated with structural or impervious redevelopment.

(69) "Regional" means an action that involves more than one discrete parcel.

(70) "Regional detention facility" means a storm water quantity control structure designed to correct existing surface water runoff problems for all or a portion of a basin or sub-basin. This term is also used when a detention facility is used to detain storm water runoff from a number of different businesses, developments or areas within a catchment.

(71) "Replaced impervious surface" means the removal and replacement of any exterior impervious surfaces or foundation of a structure. Other impervious surfaces are considered replaced if first removed down to bare soil or base course.

(72) "Retention/detention facility (R/D)" means a type of drainage system designed either to hold water for a considerable length of time and then release it by evaporation, plant transpiration and/or infiltration into the ground; or to hold surface and storm water runoff for short period of time and then release it to the surface and storm water management system.

(73) "Sediment" means solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, or ice from its original site of origin.

(74) "Sedimentation" means the process by which sediment has been transported off the site of the grading activity and settled onto land or the bed of a creek, stream, river, wetland, pond, or other water body.

(75) "Site" means the area defined by the legal boundaries of a parcel or parcels of land subject to new development or redevelopment. For road projects, the length of the project site and the right-of-way boundaries define the site.

(76) "Site plan" means a plan which indicates the character of the existing site, topography, natural drainage features on or adjacent to the site, the location and dimensions of all impervious surfaces, flow arrows indicating the direction of storm water flows on-site, and any off-site flows entering the site, the proposed method of utilizing the existing drainage system.

(77) "Slope" means the degree of deviation of a surface from the horizontal, measured as a numerical ratio, percent, or in degrees. Expressed as a ratio, the first number is the horizontal distance (run) and the second is the vertical distance (rise), as 2:1.

(78) "Soil" means the unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of land plants.

(79) "Source control BMP" means a structure or operation that is intended to prevent pollutants from coming into contact with storm water through physical separation of areas or careful management of activities that are sources of pollutants. A few examples of source control BMPs are erosion control practices, maintenance of storm water facilities, constructing roofs over storage and working areas, and directing wash water and similar discharges to the sanitary sewer or a dead end sump.

(80) "Storm drainage plan" means a plan approved by the city of Marysville which includes either a small parcel or large parcel erosion and sediment control plan and/or a water quality control plan.

(81) "Storm water" means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, or other features of a storm water drainage system into a defined surface waterbody or a constructed infiltration facility.

(82) "Storm Water Management Manual for Western Washington" means the manual prepared by the Department of Ecology that contains BMPs to prevent or reduce pollution.

(83) "Storm water site plan" means the comprehensive report containing all of the technical information and analysis necessary to evaluate a proposed new development or redevelopment project for compliance with storm water requirements. Contents of the storm water site plan will vary with the type and size of the project, and individual site characteristics. It includes a construction storm water pollution prevention plan (construction SWPPP) and a permanent storm water control plan (PSC plan).

(84) "Subject property" means the tract of land which is the subject of the permit and/or approval action.

(85) "Surface water" means the naturally occurring water that flows over or is stored on the earth's surface.

(86) "Temporary erosion control" means the on-site and off-site control measures that are needed during construction activities to prevent accelerated erosion, sedimentation or related pollution from occurring, but may not be needed when the project is completed or when ground conditions have been stabilized by permanent erosion control measures.

(87) "Threshold discharge area" means an on-site area draining to a single natural discharge location or multiple natural discharge locations that combine within one-quarter mile downstream (as determined by the shortest flowpath).

(88) "Total maximum daily load (TMDL)" means a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources.

(89) "Undeveloped conditions" means the state, status, or condition of the subject property prior to any development of the property that has occurred, which may include trees, pastures, meadows, or native features.

(90) "Uncontaminated" means water that has not come into contact with illicit discharges.

(91) "Waterbody" means surface waters including rivers, streams, lakes, marine waters, estuaries and wetlands.

(92) "Water quality control plan (WQCP)" means a plan which includes permanent BMPs for the control of pollution from storm water runoff after construction and/or land-disturbing activity has been completed.

(93) "Water quality design flow rate" means:

(a) Preceding detention facilities or when detention facilities are not required: that rate at or below which 91 percent of the runoff volume, as estimated by an approved continuous runoff model, will be treated.

(b) Downstream of detention facilities: the full two-year release rate from the detention facility.

(94) "Water quality design storm" means the 24-hour rainfall amount with a six-month return frequency. It is commonly referred to as the six-month, 24-hour design storm.

(95) "Water quality design storm volume" means the volume of runoff predicted from a 24-hour storm with a six-month return frequency.

(96) "Watershed" means a geographic region within which water drains into a particular river, stream, or body of water as identified and numbered by the State of Washington Water Resource Inventory Areas (WRIAs) as defined in Chapter 173-500 WAC or succeeding regulation.

(97) "Wetland" or "wetlands" means areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. "Wetlands" generally include swamps, marshes, bogs, and similar areas. "Wetlands" do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. However, "wetlands" include those artificial wetlands intentionally created to mitigate conversion of wetlands. See the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (January, 1987) for more information.

14.15.50 Minimum requirements.

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(2) Minimum Requirement No. 2: Construction Storm Water Pollution Prevention (SWPP). All new development and redevelopment shall comply with construction SWPP elements numbers. 1 through 12 below.

(a) Projects in which the new, replaced, or new plus replaced impervious surfaces total 2,000 square feet or more or disturb 7,000 square feet or more of land must prepare a construction SWPP plan (SWPPP) as part of the storm water site plan. Each of the 12 elements must be considered and included in the construction SWPPP unless the director decides that site conditions render the element unnecessary and the exemption from that element is clearly justified in the narrative of the SWPPP.

(b) Projects that add or replace less than 2,000 square feet of impervious surface or disturb less than 7,000 square feet of land are not required to prepare a construction SWPPP but must consider all of the 12 elements of construction stormwater pollution prevention and develop controls for all elements that pertain to the project site.

(c) Element 1: Mark Clearing Limits.

(i) Prior to beginning land disturbing activities, including clearing and grading, all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area should be clearly marked, both in the field and on the plans, to prevent damage and off-site impacts.

(ii) Plastic, metal, or stake wire fence may be used to mark the clearing limits.

(d) Element 2: Establish Construction Access.

(i) Access Limited. Construction vehicle access and exit shall be limited to one route if possible.

(ii) Tracking Sediment. Access points shall be stabilized with quarry spall or crushed rock to minimize the tracking of sediment onto public roads.

(iii) Wheel Wash. Wheel wash or tire baths should be located on-site, if applicable.

(iv) Clean Public Roads. Public roads shall be cleaned thoroughly at the end of each day. Sediment shall be removed from roads by shoveling or pickup sweeping and shall be transported to a controlled sediment disposal area. Street washing will be allowed only after sediment is removed in this manner.

(v) Street Wash Water. Street wash wastewater shall be controlled by pumping back on-site, or otherwise be prevented from discharging into systems tributary to state surface waters.

(e) Element 3: Control Flow Rates.

(i) General. Properties and waterways downstream from development sites shall be protected from erosion due to increases in the volume, velocity, and peak flow rate of storm water runoff from the project site.

(ii) Downstream Analysis. Downstream analysis is necessary if changes in flows could impair or alter conveyance systems, stream banks, bed sediment or aquatic habitat.

(iii) BMPs Functional. Storm water retention/detention facilities shall be constructed as one of the first steps in grading. Detention facilities shall be functional prior to construction of site improvements (e.g., impervious surfaces).

(iv) Additional Flow Standards. The director may require pond designs that provide additional or different storm water flow control if necessary to address local conditions or to protect properties and waterways downstream from erosion due to increases in the volume, velocity, and peak flow rate of storm water runoff from the project site.

(v) Permanent Infiltration Ponds. If permanent infiltration ponds are used for flow control during construction, these facilities should be protected from siltation during the construction phase.

(f) Element 4: Install Sediment Controls.

(i) Native Vegetation and Soils. The duff layer, native top soil, and native vegetation shall be retained in an undisturbed state to the maximum extent practicable. Duff and native top soil should be retained and reused on site to the maximum extent practicable. Where retention and reuse is not feasible or when existing site soils are disturbed, areas not intended for impervious surfaces, pervious paving, or within the dripline of preserved trees shall be amended with four inches of well-composted organic matter mixed into the top eight inches of soil or should have an organic content of between 8 and 13 percent dry weight and a pH suitable for proposed plantings. Deeper soil amendment will provide improved growing medium and increased water holding capacity.

(ii) Sediment Removal BMP. Prior to leaving a construction site, or prior to discharge to an infiltration facility, storm water runoff from disturbed areas shall pass through a sediment pond or other appropriate sediment removal BMP. Runoff from fully stabilized areas may be discharged without a sediment removal BMP, but must meet the flow control performance standard of element no. 3. Full stabilization means concrete or asphalt paving; quarry spalls used as ditch lining; or the use of rolled erosion products, a bonded fiber matrix product, or vegetative cover in a manner that will fully prevent soil erosion. The director shall inspect and approve areas stabilized by means other than pavement or quarry spalls.

(iii) BMPs Functional. Sediment ponds, vegetated buffer strips, sediment barriers or filters, dikes, and other BMPs intended to trap sediment on-site shall be constructed as one of the first steps in grading. These BMPs shall be functional before other land disturbing activities take place.

(iv) Seeding. Earthen structures such as dams, dikes, and diversions shall be seeded and mulched according to the timing indicated in element no. 5.

(g) Element 5: Stabilize Soils.

(i) General. All exposed and unworked soils shall be stabilized by application of effective BMPs that protect the soil from the erosive forces of raindrop impact and flowing water, and wind erosion.

(ii) Applicable Practices. Applicable practices include, but are not limited to, temporary and permanent seeding, sodding, mulching, plastic covering, soil application of polyacrylamide (PAM), early application of gravel base on areas to be paved, and dust control.

(iii) Soil Stabilization. Soil stabilization measures selected should be appropriate for the time of year, site conditions, estimated duration of use, and potential water quality impacts that stabilization agents may have on downstream waters or ground water.

(iv) Soil Stockpiles. Soil stockpiles must be stabilized and protected with sediment trapping measures.

(v) Linear Facilities. Work on linear construction sites and activities, including right-of-way and easement clearing, roadway development, pipelines, and trenching for utilities, shall not exceed the capability of the individual contractor for his portion of the project to install the bedding materials, roadbeds, structures, pipelines, and/or utilities, and to restabilize the disturbed soils, meeting the timing conditions listed above in subsection (2)(g)(ii) of this section.

(h) Element 6: Protect Slopes.

(i) Cut and Fill Slopes. Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion.

(ii) Soil Types. Consider soil type and its potential for erosion.

(iii) Runoff Velocities. Reduce slope runoff velocities by reducing the continuous length of slope with terracing and diversions, reduce slope steepness, and roughen slope surface.

(iv) Diverted Flows. Divert upslope drainage and run-on waters from off-site with interceptors at top of slope. Off-site storm water should be handled separately from storm water generated on the site. Diversion of off-site storm water around the site may be a viable option. Diverted flows shall be redirected to the natural drainage location at or before the property boundary.

(v) Collected Flows. Contain downslope collected flows in pipes, slope drains, or protected channels.

(vi) Ground Water. Provide drainage to remove ground water intersecting the slope surface of exposed soil areas.

(vii) Excavation. Excavated material shall be placed on the uphill side of trenches, consistent with safety and space considerations.

(viii) Check Dams. Check dams shall be placed at regular intervals within trenches that are cut down a slope.

(ix) Stabilize Soils. Stabilize soils on slopes, as specified in element no. 5.

(i) Element 7: Protect Drain Inlets.

(i) General. All storm drain inlets made operable during construction shall be protected so that storm water runoff shall not enter the conveyance system without first being filtered or treated to remove sediment.

(ii) Roads. All approach roads shall be kept clean, and all sediment and street wash water shall not be allowed to enter storm drains without prior and adequate treatment unless treatment is provided before the storm drain discharges to waters of the state.

(j) Element 8: Stabilize Channels and Outlets.

(i) General. All temporary on-site conveyance channels shall be designed, constructed and stabilized to prevent erosion from the expected velocity of flow from a two-year, 24-hour frequency storm for the developed condition.

(ii) Stabilization. Stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream reaches shall be provided at the outlets of all conveyance systems.

(k) Element 9: Control Pollutants.

(i) General. All pollutants, including waste materials and demolition debris, that occur on-site during construction shall be handled and disposed of in a manner that does not cause contamination of storm water.

(ii) Vandalism. Cover, containment, and protection from vandalism shall be provided for all chemicals, liquid products, petroleum products, and noninert wastes present on the site.

(iii) Equipment Maintenance. Maintenance and repair of heavy equipment and vehicles involving oil changes, hydraulic system drain down, solvent and degreasing cleaning operations, fuel tank drain down and removal, and other activities which may result in discharge or spillage of pollutants to the ground or into storm water runoff must be conducted using spill prevention measures, such as drip pans. Contaminated surfaces shall be cleaned immediately following any discharge or spill incident. Emergency repairs may be performed on-site using temporary plastic placed beneath and, if raining, over the vehicle.

(iv) Wheel Wash. Wheel wash, or tire bath wastewater, shall be discharged to a separate on-site treatment system. It may be discharged to the sanitary sewer system only if expressly allowed by the local sewer district authority.

(v) Agricultural Chemicals. Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to storm water runoff. Manufacturers' recommendations shall be followed for application rates and procedures.

(vi) pH Management. Management of pH-modifying sources shall prevent contamination of runoff and storm water collected on the site. These sources include, but are not limited to, bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer washout waters.

(l) Element 10: Control Dewatering.

(i) General. All foundation, vault, and trench dewatering water, which have similar characteristics to storm water runoff at the site, shall be discharged into a controlled conveyance system, prior to discharge to a sediment trap or sediment pond. Channels must be stabilized, as specified in element no. 8.

(ii) Clean Water. Clean, nonturbid dewatering water, such as well-point ground water, can be discharged to systems tributary to state surface waters, as specified in element no. 8, provided the dewatering flow does not cause erosion or flooding of the receiving waters. These clean waters should not be routed through sediment ponds with storm water.

(iii) Contaminated Water. Highly turbid or otherwise contaminated dewatering water, such as from construction equipment operation, clamshell digging, concrete tremie pour, or work inside a cofferdam, shall be handled separately from storm water at the site.

(iv) Other Disposal Options. Depending on site constraints, dewatering may include: infiltration; transport off-site in vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters; on-site treatment using chemical treatment or other suitable treatment technologies; or sanitary sewer discharge with (local sewer district approval) approval if there is no other option.

(m) Element 11: Maintain BMPs.

(i) General. All temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to assure continued performance of their intended function. All maintenance and repair shall be conducted in accordance with BMPs.

(ii) Inspection. Sediment control BMPs shall be inspected weekly or after a runoff-producing storm event during the dry season and daily during the wet season.

(iii) Remove BMPs. All temporary erosion and sediment control BMPs shall be removed within 30 days after final site stabilization is achieved or after the temporary BMPs are no longer needed. Trapped sediment shall be removed or stabilized on-site. Disturbed soil areas resulting from removal of BMPs or vegetation shall be permanently stabilized.

(n) Element 12: Manage the Project.

(i) Phasing of Construction. Development projects shall be phased where feasible in order to prevent, to the maximum extent practicable, the transport of sediment from the project site during construction. Revegetation of exposed areas and maintenance of that vegetation shall be an integral part of the activities for any phase. Clearing and grading activities for developments shall be permitted only if conducted pursuant to an approved site development plan (e.g., subdivision approval) that establishes permitted areas of clearing, grading, cutting, and filling. When establishing these permitted clearing and grading areas, consideration should be given to minimizing removal of existing trees and minimizing disturbance/compaction of native soils except as needed for building purposes. These permitted clearing and grading areas and any other areas required to preserve critical or sensitive areas, buffers, native growth protection easements, or tree retention areas as may be required by the director, shall be delineated on the site plans and the development site.

(ii) Coordination with Other Contractors. The primary project applicant shall evaluate, with input from utilities and other contractors, the storm water management requirements for the entire project, including the utilities, when preparing the construction SWPPP.

(iii) Inspection. All BMPs shall be inspected, maintained, and repaired as needed to assure continued performance of their intended function.

(A) Certified Professional. A certified professional in erosion and sediment control shall be identified in the construction SWPPP and shall be on-site or on-call at all times. Certification may be through the Washington State Department of Transportation/Associated General Contractors (WSDOT/AGC) Construction Site Erosion and Sediment Control Certification Program or any equivalent local or national certification and/or training program.

(B) Sampling. Sampling and analysis of the storm water discharges from a construction site may be necessary on a case-by-case basis to ensure compliance with standards. Monitoring and reporting requirements may be established by the director when necessary.

(C) Modify SWPPP. Whenever inspection and/or monitoring reveals that the BMPs identified in the construction SWPPP are inadequate, due to the actual discharge of or potential to discharge a significant amount of any pollutant, the SWPPP shall be modified, as appropriate, in a timely manner.

(iv) Construction SWPPP. The construction SWPPP shall be retained on-site or within reasonable access to the site. The construction SWPPP shall be modified whenever there is a significant change in the design, construction, operation, or maintenance of any BMP.

...

(7) Minimum Requirement No. 7: Flow Control.

(a) Applicability.

(i) Flow Control. Projects must provide flow control to reduce the impacts of storm water runoff from impervious[3] surfaces and land cover conversions. The requirement below applies to projects that discharge storm water directly, or indirectly, through a conveyance system, into fresh water, except for discharges into a wetland. (See minimum requirement no. 8 for flow control requirements applicable to discharges to wetlands.)

(ii) Exempt Areas. The director may petition the Department of Ecology to exempt projects in certain areas provided those areas also meet the following criteria:

(A) The area must be drained by a conveyance system that is comprised entirely of manmade conveyance elements (e.g., pipes, ditches, outfall protection, etc.) and extends to the ordinary high water line of the receiving water; and

(B) Any erodible elements of the manmade conveyance system for the area must be adequately stabilized to prevent erosion; and

(C) Surface water from the area must not be diverted from or increased to an existing wetland, stream, or near-shore habitat sufficient to cause a significant adverse impact.

(b) Thresholds. The following require construction of flow control facilities and/or land use management BMPs that will achieve the standard requirement for western Washington (see subsection (7)(c) of this section):

Table 14.15.050(7)(b)

Flow Control Requirements by Threshold Discharge Area		
	Flow Control Facilities	On-Site Storm Water Management BMPs
< 3/4 acres conversion to lawn/landscape, or < 2.5 acres to pasture		
> 3/4 acres conversion to lawn/landscape, or > 2.5 acres to pasture		
< 10,000 square feet of effective impervious area		
> 10,000 square feet of effective impervious area		
> 0.1 cubic feet per second increase in the 100-year flood frequency		

(i) Projects in which the total of effective impervious surfaces is 10,000 square feet or more in a threshold discharge area; or

(ii) Projects that convert three-quarters acres or more of native vegetation to lawn or landscape, or convert 2.5 acres or more of native vegetation to pasture in a threshold discharge area, and from which there is a surface discharge in a natural or manmade conveyance system from the site; or

(iii) Projects that through a combination of effective impervious surfaces and converted pervious surfaces, cause a 0.1 cubic feet per second increase in the 100-year flow frequency from a threshold discharge area as estimated using the Western Washington Hydrology Model or other model authorized by the director.

(iv) That portion of any development project in which the above thresholds are not exceeded in a threshold discharge area shall apply on-site storm water management BMPs in accordance with minimum requirement no. 5.

(c) Standard Requirement.

(i) Peak Flows. Storm water discharges shall match developed discharge durations to predeveloped durations for the range of predeveloped discharge rates from 50 percent of the two-year peak flow up to the full 50-year peak flow.

(ii) Predeveloped Condition. The predeveloped condition to be matched shall be a forested land cover unless reasonable, historic information is provided that indicates the site was prairie prior to settlement (modeled as "pasture" in the Western Washington Hydrology Model). This standard requirement is waived for sites that will reliably infiltrate all the runoff from impervious surfaces and converted pervious surfaces.

(d) Flow Control Facility Selection, Design, and Maintenance. Flow control facilities shall be selected, designed, and maintained in accordance with the manual.

(e) The base of a permanent infiltration systems shall be a minimum of three feet above the seasonal high ground-water mark, except if bioretention swales or cells are used for infiltration, a minimum of one-foot clearance between the bottom of the bioretention soil (or any underlying gravel layer) and the seasonal high groundwater elevation or other permeable layer is allowed for bioretention facilities meeting the following tributary area limitations:

(i) 5,000 square feet of pollution-generating impervious surface; or

(ii) 10,000 square feet of impervious area; or

(iii) ¾ acres of lawn and landscape.

...

14.15.062 Low impact development (LID) – alternative drainage standards.

Low impact BMPs are an alternative to conventional stormwater management systems that rely on detention ponds and closed conveyance. Instead, low impact development is intended to manage runoff close to the source of generation and to mimic the pre-developed hydrologic condition of a site. This is accomplished first through minimizing the impervious surface coverage and second by managing runoff through dispersion, infiltration, evapo-transpiration, or a combination of these approaches. Use of LID BMPs may reduce or eliminate the need for conventional detention facilities. A variety of BMPs to minimize impervious surfaces and to manage stormwater have been developed and tested for use in Western Washington. These BMPs and the overall LID approach are described in the LID Guidance Manual.

The menu of LID BMPs identified in the LID Guidance Manual are accepted for use in stormwater site plans to address the minimum requirements for flow control and runoff treatment in MMC 14.15.060, subject to the specifications, performance standards, and design criteria in the LID Guidance Manual, review and approval under this chapter, Chapter 19.49 MMC, as applicable, and the requirements and limitations below.

(1) The city engineer may approve the following LID BMPs to meet water quality treatment requirements:

(a) Full dispersion. Sites that are approved for full dispersion, consistent with the standards in the Technical Guidance Manual, are not required to provide water quality treatment.

(b) Bioretention. Any stormwater runoff that infiltrates through the imported soil mix in an approved bioretention facility will have received the equivalent of enhanced treatment. Where bioretention is intended to fully meet treatment requirements, facilities shall be designed, using an approved continuous runoff model, to infiltrate 60 percent of the developed two-year peak flow.

(2) In addition to the requirements in MMC 14.15.065, applicants for LID BMPs shall provide a site assessment. The site assessment shall include the following, unless waived or modified by the city engineer:

(a) A mapped inventory of existing vegetation and description of tree cover and understory;

(b) A mapped inventory of wetlands and streams and required buffers under Chapter 19.24 MMC on the site;

(c) A survey prepared by a registered land surveyor or other licensed professional to conduct surveys showing existing development, including utility infrastructure, on and adjacent to the site, major and minor hydrologic features, including seeps, springs, closed depression areas, drainage swales, and topographic relief at two-foot contours;

(d) The location of all existing and proposed lot lines and easements;

(e) A soils report by a licensed geotechnical engineer or licensed engineering geologist. The report shall identify:

(i) Underlying soils on the site, utilizing soil pits and soil grain analysis to assess infiltration capability. The frequency and distribution of test pits shall be adequate to direct placement of the roads and structures away from soils that can most effectively infiltrate stormwater;

(ii) Topographic features that may act as natural stormwater storage or conveyance and underlying soils that provide opportunities for storage and partial infiltration;

(iii) Depth to groundwater;

(iv) Landslide hazard areas on the site and the distance to slopes over 25 percent or landslide hazard areas within 500 feet of the site;

(f) Flood hazard areas on or adjacent to the site;

(g) SEPA Environmental Checklist.

(3) Additional studies may be required to address potential impacts to down-slope properties.

(4) Restrictions on conversion of drainage facilities shall be recorded on the face of the plat.

(5) A covenant shall be recorded with the Snohomish County auditor's office for each lot containing or served by bioretention facilities in a form approved by the city attorney. The covenant shall identify requirements and liability for preservation and maintenance of low impact development facilities approved under this chapter and privately held in individual or undivided ownership or intended for public ownership.

(6) An easement shall be granted for City access to low-impact development facilities on private property to allow inspection, maintenance, and repair.

Section 3. Ch. 14.16 MMC is hereby amended by amending MMC 14.16.015 and 14.16.040 to read as follows:

14.16.015 Developer-installed storm water facilities located in city right-of-way.

The city may assume the operation and full or partial maintenance of developer-installed

retention/detention or other drainage type treatment/abatement facilities located in the city right-of-way or on city-owned property after the expiration of the two-year operation and maintenance period if:

(1) All the requirements of this chapter have been fully complied with;

(2) The facilities have been inspected and approved by the engineer after two years of operation.

14.16.040 Connections required.

(1) The owner of any property which is not connected to the public storm drainage system shall be required to extend any storm drainage line which is

within 200 feet of the property, and to connect to and use the same for all developed portions of the property, under any of the following circumstances:

(a) As a condition of final approval of a subdivision;

(b) As a condition of final approval of a short subdivision;

(c) As a condition of final approval of a binding site plan for any mobile home park, condominium, planned unit development, industrial park or shopping center;

(d) As a condition of any building, grading, paving or other development approval, including rezones or conditional use permits, which will have a significant adverse impact upon storm drainage; as determined by the public works director or designee.

(2) The public works director or designee may waive the requirement of subsection (1) of this section on the following grounds:

(a) If the public works director or designee finds that the capacity or condition of the existing public storm-drainage system is insufficient or inadequate to serve the subject property; or

(b) If the public works director or designee finds that it would cause a practical difficulty to require the connection of the subject property to the public storm drainage system by reason of circumstances which are unique to the property and not generally shared by other properties in the vicinity; or

(c) If the public works director or designee finds that proposed on-site stormwater BMPs are adequate under the requirements of this Title.

No such waiver shall be granted which would be detrimental to the public health, safety, welfare or environment, or which would be inconsistent with the long-range plans for the public storm drainage system. In all cases where a waiver is granted, the property owner shall be required to strictly comply with storm water retention/detention requirements of Chapter 14.15 MMC.

The decision of the public works director or designee regarding such waivers shall be final, subject to appeal to the city council; provided, that in cases where a property owner has applied for development approval which is to be ruled upon by the city council itself, waivers referred to herein shall be determined by the city council after taking into consideration the recommendation of the city engineer.

Section 4. Ch. 14.17 MMC is hereby amended by adding a new section MMC 14.17.035 and amending MMC 14.17.090 to read as follows:

14.17.035 Maintenance of bioretention facilities.

(1) Bioretention cells and swales which are located on private property or in public street rights-of-way shall be cleaned, maintained and protected in continuous compliance with the

standards and specifications of the city and any recorded maintenance agreements. Responsibility for such work shall be borne by the owner of the underlying property or, in the case of facilities within the public right-of-way, responsibility for such work shall be born by the City.

(2) Property owners shall inspect approved bioretention facilities annually. Routine maintenance such as trash removal, weeding, mulching and pruning of bioretention areas and swales shall be performed in accordance with the maintenance requirements outlined in the most current edition of the LID Technical Guidance Manual for Puget Sound as needed, but at least once yearly or as specified in City standards, maintenance specifications or any recorded maintenance agreements.

(3) The city shall inspect approved bioretention facilities on an annual basis and monitor the ongoing function of both private and public facilities. Routine maintenance such as trash removal, weeding, mulching and pruning of bioretention areas and swales shall be performed on public facilities in accordance with the maintenance requirements outlined in the most current edition of the LID Technical Guidance Manual for Puget Sound as needed, but at least once yearly or as specified in City standards, maintenance specifications, or any recorded maintenance agreements.

(4) No person shall cause or permit bioretention areas to be obstructed, filled, graded, or used for disposal of debris.

(5) If an LID facility required to be maintained by a private property owner fails to perform as designed due to lack of maintenance, the City has the authority to perform the necessary maintenance, and recoup the costs incurred.

(6) The city shall enforce the provisions of this section pursuant to the procedures specified in MMC 14.17.040 through 14.17.080.

14.17.090 Exemptions.

(1) Storm water facilities owned and maintained by the Washington State Department of Transportation in state highway rights-of-way which are regulated by and meet the requirements of Chapter 173-270 WAC, the Puget Sound Highway Runoff Program, are exempted from the requirements of this chapter.

(2) Except as specified by covenant or other instrument recorded on the title of adjacent property, storm water facilities located in city of Marysville rights-of-way shall be maintained by the city and are exempted from the requirements of this chapter.

(3) Requests for exemption shall be filed in writing with the public works director or designee and shall adequately detail the basis for granting an exemption.

(4) The decision of the public works director or designee concerning a request for an exemption shall be made in writing for review of the city council.

(5) The decision of the public works director or designee, as to an exemption or denial thereof, may be appealed to the city council by filing written notice of appeal with the city clerk within 10 days of service of the public works director or designee's decision.

Section 5. Ch. 19.06 MMC is hereby amended by adding MMC 19.06.054 and amending MMC 19.06.268 and 19.06.343 to read as follows:

19.06.054 Best Management Practice (BMP)

"Best management practices (BMPs)" refers to the schedules of activities, prohibitions of practices, maintenance procedures, and, structural, and/or managerial practices, that when used

singly or in combination, prevent or reduce pollution of water and have been approved by the engineer. BMPs include, but are not limited to, infiltration, retention and/or detention, dispersion, amended soils, biofiltration facilities, bioretention facilities, open ditches with check dams, filter fabric strips, oil/water separators, wet ponds, constructed wetlands, erosion and sedimentation control, and other treatment/abatement facilities.

19.06.268 Impervious surface.
"Impervious surface" means any nonvertical surface artificially covered or hardened so as to prevent or impede the percolation of water into the soil mantle including, but not limited to, roof tops, swimming pools, paved or graveled roads or parking areas and excluding landscaping and surface water retention/detention facilities. Low impact development methods including, but not limited to, pervious pavement systems, green roofs and the area within minimal excavation foundations may reduce impervious area subject to consistency with the Low Impact Development Technical Guidance Manual for Puget Sound and approval of the city engineer.

19.06.343 Net project area.
"Net project area" means the gross project area minus floodplains, utility easements 30 feet wide or greater, publicly owned community facility land and right-of-way, stormwater detention facility tracts or easements (unless underground and usable for recreation), private roads or access easements, panhandles, and nontransferable critical areas (e.g. stream channels) per MMC 19.24.370. If stormwater detention areas are designed and constructed to meet low impact development standards, 50% of the area used for detention may be counted as net project area.

Section 6. Ch 19.16 MMC is hereby amended by amending Subsection (4) of MMC 19.16.080 and MMC 19.16.100 and adding a new section MMC 19.16.115 to read as follows:

19.16.080 Descriptions of screens and landscaping types.
...
(4) Parking Area Landscaping, Type D. Landscaping that provides shade and visual relief while maintaining clear sight lines within parking areas. Planting areas should contain a mixture of evergreen and deciduous trees, shrubs and groundcover in planting islands or strips having an area of at least 75 square feet and narrow dimension of no less than five feet. Suggested planting patterns which will achieve this standard are included in administrative guidelines prepared by the planning department.
...

19.16.100 Landscaping requirements for parking and outdoor display areas.
(1) Parking area, or outdoor storage areas fronting on a street right-of-way shall provide a landscaped buffer, in accordance with Table 1, along the entire street frontage except for driveways; provided, that the plantings shall not obstruct the sight distance at street intersections.
(2) Additional plantings may be placed on street rights-of-way behind the sidewalk line if the property owner provides the city with a written release of liability for damages which may be incurred to the planting area from any public use or right-of-way.
(3) Ten percent of the parking area, in addition to the required buffers above, shall be landscaped with Type D landscaping; provided that:
(a) No parking stall shall be located more than 45 feet from a landscaped area;
(b) All landscaping must be located between parking stalls, between rows of stalls, or at

the end of parking columns. The use of strips or islands as bioretention swales or cells is encouraged, subject to approval by the city engineer. No landscaping which occurs between the parking lot and a building or recreation area shall be considered in the satisfaction of these requirements;

(c) A minimum of one tree for every 120 square feet of required internal landscaped area shall be dispersed throughout the internal landscaped areas. Some trees may be grouped, but the groupings should be dispersed. Existing trees may be used to meet this standard. If existing trees are retained, each tree six inches or less in diameter counts as one tree. All trees will have a minimum diameter of three inches. Trees between six inches and nine inches in diameter counts as two trees. Each additional three inch diameter increment above nine inches counts as one tree;

(d) Parking lots containing less than 20 parking spaces need provide only perimeter screening to satisfy the 10 percent area requirements;

(e) All landscaped areas shall be protected from vehicle damage by a six-inch protective curbing. Wheel stops may be substituted when required to allow stormwater to pass;

(f) The landscaping requirements of this section may be modified if a development is located in an area where a special streetscape plan has been approved by the city.

19.16.115 Landscaping – Soil amendment.

All landscaped and lawn areas, except areas within the dripline of preserved trees, shall be amended with four inches of well-composted organic matter mixed into the top eight inches of soil or shall have an organic content of between 8 and 13 percent dry weight and a pH suitable for proposed plantings. Deeper soil amendment will provide improved growing medium and increased water holding capacity.

Section 7. Ch 19.24 MMC is hereby amended by amending Subsection (10) of MMC 19.24.100 and Subsection (9) of MMC 19.24.230 to read as follows:

19.24.100 Wetland buffer areas.

...

(10) Stormwater management facilities, such as biofiltration swales and dispersion facilities, may be located within the outer 25 percent of wetland buffers only if they will have no negative effect on the functions and purpose the buffers serve for the wetland or on the hydrologic conditions, hydrophytic vegetation, and substrate characteristics necessary to support existing and designated beneficial uses.

...

19.24.230 Fish and wildlife habitat buffer areas.

...

(9) Stormwater management facilities, such as biofiltration swales and dispersion facilities, may be located within the outer 25 percent of buffers only if they will have no negative effect on the functions and purpose the buffers serve for the fish and wildlife habitat areas. Stormwater detention ponds shall not be allowed in fish and wildlife habitat areas or their required buffers.

...

Section 8. Ch 19.28 MMC is hereby amended by amending Subsection (2)(g) of MMC 19.28.030 to read as follows:

19.28.030 Minimum standards.

...

(2) Grading. The following are the minimum standards for grading unless otherwise modified by an approved grading plan:

(g) The duff layer and native topsoils shall be retained in an undisturbed state to the maximum extent practicable in areas not intended for building pads, access ways or other impervious surfaces.

...

Section 9. Ch 20.12 MMC is hereby amended by amending Subsection (2) of MMC 20.12.010 to read as follows:

20.12.010 Preapplication requirements.

...

(2) Preliminary Drawing.

(a) The applicant shall provide an accurate preliminary drawing to scale showing lot layout, existing and proposed building location, size, access, utilities, open space, water sources, adjacent land use, and five-foot contours. This drawing must be provided before a pre-application meeting will be scheduled.

(b) If low-impact development techniques, including bioretention, dispersion or infiltration are proposed to manage stormwater, the applicant shall provide a site assessment consistent with the requirements in MMC 14.15.061.

(c) The applicant shall also provide a legal description of the property and a vicinity map.

...

Section 10. Ch 20.24 MMC is hereby amended by amending Subsections (2) and (3) of MMC 20.24.070, Subsection (4) of MMC 20.24.090, Subsection (1) of MMC 20.24.110, and MMC 20.24.250 to read as follows:

20.24.070 Landscaping requirements.

Landscaping shall be in conformance with Chapter 19.16 MMC, Development Standards – Landscaping; provided, that for all new divisions of land, the applicant shall provide a landscape/reforestation plan that will include, but not be limited to, the following:

...

(2) Yard trees at a rate of two per lot. Yard trees shall include at least one evergreen tree which is native to the Northwest region. Yard trees shall be a minimum of one and one-quarter inches in caliper and six to eight feet high for deciduous, and six feet high for evergreens. Lots that include retained trees will not be required to provide yard trees.

(3) Where the community development director determines that it is not feasible and/or desirable to plant the required lot trees, the applicant shall pay into the city tree fund an amount of money approximating the current market value of the trees, as well as labor costs for installation of said trees, that would otherwise be required. The city shall use the city tree fund for the purpose of acquiring, maintaining, and preserving wooded areas, and for planting and maintaining trees within the city.

...

20.24.090 Street improvements.

...

(4) The use of curvilinear streets and loop access roads shall be encouraged where such use will result in a more desirable layout.

...

20.24.110 Drainage improvements.

(1) Drainage improvements shall be required as specified in MMC Title 14. Use of low impact development methods to mimic predevelopment hydrologic functions and manage stormwater through natural processes is encouraged.

(2) Drainage Easements. When a subdivision or short subdivision is traversed by a watercourse, drainageway, channel or stream, the applicant shall provide a drainage easement or drainage right-of-way conforming substantially to the lines of the watercourse or drainageway. The easement or drainage right-of-way shall be maintained in its natural state with proper setback and landscaping as approved by the city.

20.24.250 Site improvements designated.

Site improvements shall include, but are not limited to: grading of entire width of street rights-of-way, asphalt/concrete surfacing of roadways (as per city standards contained in the street code), curbs, gutters and sidewalks constructed according to the street code, and construction of drainage facilities included in the preliminary plat. The requirement for curbs and gutters may be waived by the City Engineer, if bioretention facilities are approved for managing stormwater runoff from the street. Flow through curbs may be required by the City Engineer. The developer shall request inspection of the improvements by the city engineer or his designee at the following times:

(1) Erosion control measures are installed;

(2) Rough grading is complete and prior to placing pit run;

(3) Stormwater management facility completion;

(4) Roadway and frontage improvement completion;

(5) When all improvements, including monuments, have been placed.

All improvements which do not meet city standards shall be immediately replaced or repaired prior to proceeding. The city engineer, or his designee, will inform the developer in writing of any improvements which are not acceptable.

Section 11. Title 19 MMC is hereby amended by adding a new chapter Ch. 19.49 MMC to read as follows:

CHAPTER 19.49
LOW IMPACT DEVELOPMENT

Sections:

19.49.010 Purpose.

The purpose of this chapter is to permit design flexibility and provide performance criteria for low impact development. Low impact development (LID) is a stormwater management and land development strategy utilized in site design and construction that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to mimic natural hydrologic functions. Implementation of LID benefits streams, lakes, and Puget Sound by moderating the impacts of stormwater runoff generated by the built environment. LID techniques may supplant or augment traditional, structural stormwater management solutions. Low impact best management practices (BMPs) are described in the Low Impact Development Technical Guidance Manual for Puget Sound, 2005, published by the Puget Sound Action Team. LID objectives are:

(1) To retain or restore native forest cover to capture, infiltrate, and evaporate all or a portion of the rainfall on a site;

(2) To confine development to the smallest possible footprint and minimize land disturbance and site grading;

(3) To preserve or restore the health and water-holding capacity of soils;

(4) To incorporate natural site features that promote stormwater infiltration;

(6) To minimize all impervious surfaces and especially those that drain to conventional piped conveyance;

(7) To manage stormwater through infiltration, bioretention, and dispersion; and

(8) To manage stormwater runoff as close to its origin as possible in small, dispersed facilities.

19.49.020 Applicability.

(1) Conformance with this chapter shall be required:

(a) For sites designated as a low impact development special district or overlay zone under the authority of Chapter 19.46 MMC; or

(b) Where specified in an adopted basin plan pursuant to MMC 14.15.050(9); or

(c) When a site has committed to being an LID project pursuant to MMC 14.15.062.

(2) Modifications of this chapter are allowed for any proposed development subject to a determination of the applicable review authority that the proposal substantially furthers all objectives in MMC 19.49.010.

19.49.030 Protected native vegetated areas.

A portion of the site shall be preserved as protected native vegetated area.

(1) Protected native vegetated areas shall be designated in the following ratios:

(a) Residential Developments: Proposed at 6.0 dwelling units per acre or less shall preserve 35 percent of the site as native growth areas.

(b) Residential Developments: Proposed at more than 6.0 dwelling units per acre shall preserve 20 percent of the site as native growth areas.

(c) Commercial Developments: Shall preserve 10 percent of the site as native growth or landscaped areas.

(d) Improvements within existing public rights-of-way are exempt.

(2) For the purposes of calculating required area, submerged lands and sensitive areas and buffers required to be protected pursuant to Chapter 19.24 MMC shall not be included.

(3) Protected native vegetated areas shall be forested. Where existing vegetation provides minimal canopy cover or where nonnative or invasive plant species provide the predominant

cover, a planting plan shall be prepared that includes plant densities that are not less than five feet on center for shrubs and 10 feet on center for trees. This requirement does not apply to preserved wetlands. All plant species shall be native. Seventy percent of planted trees shall be deciduous species of at least one and one-half inch in caliper. Evergreen trees shall be six feet in height. The community development director may modify the requirements of this section based on site conditions.

(4) Clearing limits shall be surveyed, staked, and fenced with erosion control and/or clearing limits fencing prior to any construction work, including grading and clearing.

(5) Trees shall not be removed from areas proposed to meet the protected native growth area requirement during site development.

(6) Monitoring and maintenance of plants shall be required in accordance with MMC 19.24.270.

(7) Development within protected native vegetated areas shall be limited to biofiltration swales, stormwater dispersion facilities, pervious pedestrian trails, and approved surface water restoration projects. Activities within the protected native growth areas shall be limited to passive recreation, removal of invasive species, amendment of disturbed soils consistent with all applicable regulations, and planting of native vegetation. Development shall be consistent with critical areas requirements and restrictions in Chapter 19.24 MMC.

(8) A permanent protective mechanism shall be legally established to ensure that the required protected native vegetated area is preserved and protected in perpetuity in a form that is acceptable to the city and filed with the county auditor's office. A permanent protected native vegetated area shall be established using one of the following mechanisms.

(a) Placement in a separate non-building tract owned in common by all lots within a subdivision;

(b) Covered by a protective easement or public or private land trust dedication;

(c) Preserved through an appropriate permanent protective mechanism that provides the same level of permanent protection as subsection (a) of this section as determined by the community development director or hearing examiner.

(9) Restrictions on the future use of the protective native vegetated area shall be recorded on the face of the final plat, short plat, binding site plan, or site plan.

19.49.040 Preservation and amendment of topsoils.

The duff layer and native topsoils shall be retained in an undisturbed state to the maximum extent practicable.

(1) Any duff or topsoil removed during grading shall be stockpiled on-site in a designated, controlled area not adjacent to public resources and critical areas. The material shall be reapplied to other portions of the site where feasible.

(2) Except as otherwise provided in subsection (3), areas that have been cleared and graded or subject to prior disturbance shall be amended. Prior disturbance shall include soil compaction or removal of some or all of the duff layer or underlying topsoil. The amendment shall take place between May 1 and October 1. Replaced topsoil shall be a minimum of 8 inches thick, unless the applicant demonstrates that a different thickness will provide conditions equivalent to the soil moisture holding capacity native to the site. Replacement topsoil shall have an organic content of between 8 and 13 percent dry weight and a pH suitable for the proposed landscape plants.

(3) This section does not apply to areas within the dripline of existing trees proposed for retention, or areas that, at project completion, are covered by an impervious surface, incorporated into a drainage facility or engineered as structural fill or slope.

19.49.050 Stormwater management.
LID projects shall use infiltration, dispersion, and bioretention to the maximum extent practicable to manage stormwater runoff generated on-site.

(1) Infiltration shall be used except where a site assessment demonstrates that infiltration is not feasible due to site conditions or due to probable risk to groundwater or to other property.
(3) LID projects shall meet the minimum peak and duration flow control standards per the Department of Ecology Stormwater Management Manual for Western Washington, current city adopted edition.
(4) Flow control facilities may be reduced in size through compliance with LID Technical Guidance Manual Section 7.2.2 – full dispersion for all or part of the development site.
(5) Water quality treatment BMPs shall be provided to treat 91-percent of the annual runoff volume per the Department of Ecology standards.
(6) All site soils disturbed during construction shall be rehabilitated to the specifications of Integrated Management Practice 6.2 of the Low Impact Development Technical Guidance Manual for Puget Sound (2005).

TABLE 19.49.060-1	Pond Reduction (Infiltration <0.30 in/hr or less) 5,6	Pond Reduction (Infiltration of = 0.30 in/hr or more) 5,6
Rural Residential	100%	100%
Urban Residential < 6.0 Dwelling Units per Acre	50%	60%
Urban Residential 6.0 Dwelling Units per Acre	50%	60%
Multi-Family	40%	80%
Commercial	40%	80%
Roads	50%	50%

The volume reduction in the Table 19.49.060-1 represents a reduction as compared to the volume needed for a detention pond serving a standard development. Notes (a)-(d) below apply to the table.

(a)Infiltration rates are as measured in the field at the proposed LID location using techniques recommended in the Stormwater Management Manual for Western Washington and the Low Impact Technical Guidance Manual for Puget Sound.
(b) Multi-family projects are those projects containing more than three dwelling units attached in a single structure, regardless of ownership mechanism.
(c) All projects with Type A (outwash) soils shall infiltrate 100 percent of runoff.
(d) Stormwater discharges shall match developed discharge durations to pre-developed durations for the range of pre-developed discharge rates from 50 percent of the 2-year peak flow up to the full 50-year peak flow.

19.49.060 Maximum impervious surfaces.
LID projects shall limit impervious surface coverage as follows:

(1) New impervious surface shall not exceed 70 percent of the site for nonresidential uses listed in MMC 19.08.040, MMC 19.08.050, MMC 19.08.060, MMC 19.08.070, MMC 19.08.080, MMC 19.08.090, MMC 19.08.100, and hotel/motel uses.
(2) New impervious surface coverage shall not exceed the maximum limits in the following table for residential uses listed in MMC 19.08.030 except hotel/motel uses:

TABLE 19.49.070-2	**Maximum Percent Impervious Area based on Residential Density**
Dwelling Units Per Acre	**Maximum % Impervious**
1.4 du/ac	10%
1.5-2.4 du/ac	15%
2.5-3.4 du/ac	20%
3.5-4.9 du/ac	30%
5.0-6.9 du/ac	35%
7.0-9.9 du/ac	40%
10.0 du/ac or greater	60%

19.49.070 Density bonus and dimensional standard modifications.
(1) Development may be granted a density incentive pursuant to Chapter 19.26 MMC.
(2) The city, in its discretion, may allow the following modifications to residential dimensional standards in MMC 19.12.030 to meet the protected native growth area requirement in MMC 14.49.040 and to accommodate density bonuses received pursuant to Chapter 19.26 MMC:
(a) Minimum lot area may be reduced for single family dwellings to 4,000 square feet in the R-6.5 zone and 3,500 square feet in the R-8 zone.
(b) Minimum lot width may be reduced to 40 feet in the R-4.5 and R-6.5 zones.
(3) Modifications requested under this section shall require a justification of necessity according to the provisions of (1) above.

19.49.080 Review process.
(1) Except as specifically modified by this chapter, all development occurring under this chapter shall be subject to all applicable requirements and processes of the Marysville Municipal Code.
(2) All standards and requirements of this chapter shall be conditions of approval for the underlying development permits.
(3) All development proposed under this chapter shall be subject to the site assessment requirements of MMC 14.15.061(2). Applicants are encouraged to meet with public works and planning staff following completion of the site assessment and prior to site design to discuss additional analysis that may be required to support the use of LID BMPs, preliminary recommendations on meeting the stormwater regulations, and low impact options for site design.

Section 12. Severability. If any section, subsection, sentence, clause, phrase or work of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality thereof shall not affect the validity or constitutionality of any other section, subsection, sentence, clause, phrase or word of this ordinance.

PASSED by the City Council and APPROVED by the Mayor this _____ day of _____, 2007.

CITY OF MARYSVILLE

By: _____
DENNIS L KENDALL, MAYOR

Attest:

By: _____
CITY CLERK

Approved as to form:

By: _____
GRANT K. WEED, CITY ATTORNEY

Date of Publication: _____

Effective Date: _____
(5 days after publication)

CITY OF MARYSVILLE
Marysville, Washington

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF MARYSVILLE, WASHINGTON, AMENDING THE CITY'S ENGINEERING DESIGN AND DEVELOPMENT STANDARDS, BY AMENDING THE WATER DISTRIBUTION DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS (CHAPTER 2), THE ENGINEERING DESIGN AND DEVELOPMENT STANDARDS (CHAPTER 3), THE DRAINAGE AND EROSION CONTROL DESIGN STANDARDS (CHAPTER 4), AND THE SANITARY SEWER DESIGN STANDARDS (CHAPTER 5), AUTHORIZING THE CITY ENGINEER TO MAKE TECHNICAL AMENDMENTS TO SAID STANDARDS, AND AMENDING THE PRIOR ORDINANCES THAT ADOPTED AND AMENDED SAID STANDARDS.

WHEREAS, the City Council of the City of Marysville finds that from time to time it is necessary and appropriate to review and revise the City's design, construction, and development standards related to water distribution, streets, drainage and erosion control, and sanitary sewer to meet industry standards and other applicable rules and regulations; and

WHEREAS, the adoption of engineering design and development standards assists in defining the appearance and function of city streets and other necessary public facilities; and

WHEREAS, the adoption of comprehensive, detailed engineering design and development standards will assist in the orderly development of infrastructure within the City; and

WHEREAS, adoption of engineering design and development standards is deemed to be in the interest of public health, safety, and welfare; and

WHEREAS, the City sent notification to the development, engineering, and consultant community concerning the proposed revisions seeking input and comments; and

WHEREAS, the City placed the proposed revisions on the City's web page and presented highlights of the proposed amendments during the City annual developer breakfast; and

WHEREAS, the City has complied with the requirements of the State Environmental Policy Act, Ch.43.21C RCW, (SEPA) by adopting a determination of non-significance for the adoption of the proposed revisions to the City's Engineering Design and Development Standards; and

WHEREAS, at a public meeting on May 14, 2007, the Marysville City Council reviewed and considered the amendments to the City's Engineering Design and Development Standards;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON DO ORDAIN AS FOLLOWS:

Section 1: The Water Distribution Design and Construction Standards and Specifications (Chapter 2), originally adopted in November 1998 and revised in October 2001, are hereby amended as set forth in the attached Exhibit A.

Section 2: The Engineering Design and Development Standards (Chapter 3), originally adopted in September 1999 and revised in October 2001, are hereby amended as set forth in the attached Exhibit B.

Section 3: The Drainage and Erosion Control Design Standards (Chapter 4), originally adopted in April 1999 and revised in August 2001, are hereby amended as set forth in the attached Exhibit C.

Section 4: The Sanitary Sewer Design Standards (Chapter 5), originally adopted in April 1997 and revised in August 2001, are hereby amended as set forth in the attached Exhibit D.

Section 5: The City Engineer is hereby authorized to administratively make technical amendments to the Engineering Design and Development Standards without City Council approval, provided that such amendments are consistent with applicable City ordinance and code provisions.

Section 6: Each of the ordinances originally adopting and subsequently amending the above referenced standards and specifications are hereby amended as set forth in the attached Exhibits A, B, C, and D.

Section 7: No Special Duty Created:

a. It is the purpose of this ordinance to provide for the health, welfare, and safety of the general public, and not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefitted by the terms of this ordinance. No provision or term used in this ordinance is intended to impose any duty whatsoever upon the City or any of its officers, elected officials, agents, or employees for whom the implementation or enforcement of this ordinance shall be discretionary and not mandatory.

b. Nothing contained in this ordinance is intended to be, nor shall be construed to create or form the basis for, any liability on the part of the City or its officers, agents, and employees for any injury or damage resulting from the failure of any premises to abate a nuisance or to comply with the provisions of this ordinance or be a reason or a consequence of any inspection, notice , or order, in connection with the

implementation or enforcement of this ordinance, or by reason of any action of the City related in any manner to enforcement of this ordinance by its officers, agents, or employees.

Section 8. Severability. If any section, subsection, sentence, clause, phrase or work of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality thereof shall not affect the validity or constitutionality of any other section, subsection, sentence, clause, phrase or word of this ordinance.

PASSED by the City Council and APPROVED by the Mayor this _____ day of _____, 2007.

CITY OF MARYSVILLE

By: _____
DENNIS L KENDALL, MAYOR

Attest:

By: _____
CITY CLERK

Approved as to form:

By: _____
GRANT K. WEED, CITY ATTORNEY

Date of Publication: _____

Effective Date: _____
(5 days after publication)

CITY OF MARYSVILLE
Marysville, Washington

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF MARYSVILLE, WASHINGTON, AMENDING THE CITY'S COMPREHENSIVE PLAN BY ADOPTING THE INITIAL SUBAREA PLAN FOR THE EAST SUNNYSIDE/WHISKEY RIDGE AREA AND AMENDING THE CITY'S DEVELOPMENT REGULATIONS BY AMENDING CHAPTERS 19.12 AND 19.26 MMC.

WHEREAS, the City of Marysville has proposed under RCW 36.70A.130(2)(a)(ii) to amend its comprehensive plan by the initial adoption of a subarea plan for the East Sunnyside/Whiskey Ridge neighborhood; and

WHEREAS, any amendment or revision to a comprehensive land use plan must conform to RCW 36.70A.130; and

WHEREAS, the City of Marysville has met the spirit and intent of RCW 36.70A.130 by (1) providing for a public participation program set forth in Section 2 below, by (2) reviewing and identifying needed revisions to the Comprehensive Plan and development regulations, as described in Section 3 below, and by (3) adopting a subarea plan for the East Sunnyside/Whiskey Ridge neighborhood as set forth in the attached Exhibit A; and

WHEREAS, in taking the actions set forth in this Ordinance, the City of Marysville has made a good faith effort to comply with the recommendations of CTED and has submitted to CTED the proposed needed revisions to the City's Comprehensive Plan and development regulations as required by RCW 36.70A.106; and

WHEREAS, in taking the actions set forth in this Ordinance, the City of Marysville has complied with the requirements of the State Environmental Policy Act, Ch.43.21C RCW, (SEPA) by issuing an addendum on January 16, 2007 to the Final EIS for the City's Comprehensive Plan and Development Regulations; and

WHEREAS, the City received numerous comments on the revisions to the Comprehensive Plan and development regulations from citizens, environmental groups, developer organizations, and government entities, which comments the City has duly considered in adopting the needed revisions to the Comprehensive Plan and development regulations set forth in the

subarea plan for the East Sunnyside/Whiskey Ridge area; and

WHEREAS, the Planning Commission held public hearings on December 11, 2006 and January 23, 2007; and

WHEREAS, the City Council held a public hearing on April 23, 2007, at which further public input was allowed on the subject of the proposed subarea plan recommended by the Planning Commission; and

WHEREAS, before adopting the needed revisions to the Comprehensive Plan and development regulations set forth in the subarea plan for the East Sunnyside/Whiskey Ridge area, the City Council has has considered the public testimony, the report of staff and the Planning Commission;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON DO ORDAIN AS FOLLOWS:

Section 1. Public Participation Program.
The City of Marysville has established and implemented a public participation program for reviewing the proposed adoption of the subarea plan for the East Sunnyside/Whiskey Ridge area and the proposed revisions to the City's development regulations . The public participation program consisted of the meetings and hearings set forth below. The program has provided for broad dissemination of proposals and alternatives, opportunity for written comments, public meetings after effective notice, provision for open discussion, communication programs, information services, and consideration of and response to public comments. Notice of the public meetings and hearings was given by:

(a) mailing notices to property owners and residents;

(b) publishing notices in newspapers of general circulation in the City and region;

(c) notifying public and private groups with known interest in a certain proposal or type of proposal being considered;

(d) posting notices at City buildings and the post office; and

(e) making copies of the proposals and alternatives available for purchase or for review at the public library, City website, and City Hall.

Section 2. Review and Identification of Needed Revisions to the Comprehensive Plan and Development Regulations.
The City of Marysville has conducted a thorough review of the City's Comprehensive Plan and

development regulations to identify revisions needed in the subarea plan to ensure compliance with the GMA and ensure internal consistency with policies and designations of the comprehensive plan. This review has been conducted by the City's Planning Commission, staff, and citizens and has utilized the public participation program set forth in Section 1 above.

Based on this review, the City has identified needed revisions to the Comprehensive Plan and development regulations as set forth in the subarea plan for the East Sunnyside/Whiskey Ridge area, which is set forth in the attached Exhibit A.

Section 3. Approval of Planning Commission's Recommendation and Adoption of Findings.
The City Council hereby approves the Planning Commission's recommendation with minor revisions as set forth in the attached Exhibit A.

Section 4. Adoption of Subarea Plan Amending the City of Marysville Comprehensive Plan.
The City Council hereby adopts the subarea plan for the East Sunnyside/Whiskey Ridge area, which is attached hereto as Exhibit A and is incorporated herein by this reference.

Section 5. Chapter 19.12 of the Marysville Municipal Code is hereby amended by adopting MMC 19.12.035 to read as follows:

Whiskey Ridge Subarea Plan zones. This chart supplements the existing zoning regulations in Chapter 19.12.030 Marysville Municipal Code)

(For implementing zones of Single Family High (R 6.5) and Multiple Family, Medium please refer to MMC 19.12.030.)

(1) Densities and Dimensions.

	Single Family High, R4-8 (24)	Multi-Family Low, R6-18 (15, 24)	Mixed Use MU (16, 24)	CB
Density: Dwelling unit/acre (6)	4.5 du/ac	6 du/ac (detached single family) 10 du/ac (attached multi family)	12 du/ac	--

Maximum density: Dwelling unit/acre (1)	8	18 du/ac	18 du/ac	
Minimum street setback (3) (18)	20 ft (8)	20 ft (23)	20 ft (23)	None (19, 23)
Minimum side yard setback (3)	5 ft (10)	10 ft (10)	None (20)	25 ft. (18)
Minimum rear yard setback (3)	20 ft	25 ft	None (20)	25 ft. (18)
Base height	30 ft	35 ft (4)	45 ft.	55 ft.
Maximum building coverage: Percentage (5)	40%	40%	-	-
Maximum impervious surface: Percentage (5)	50%	70%	85%,75% (22)	85%
Minimum lot area	5,000 sq. ft	-	None	None
Minimum lot area for duplexes (2)	7,200 sq. ft	-	-	-
Minimum lot width (3)	40 ft	70 ft	None	None
Minimum lot frontage on cul-de-sac, sharp curve, or panhandle (16)	20 ft	-	-	-
WCF height (17)	60 ft	60 ft	120 ft	120 ft

(2) Development Conditions.

1. a. The maximum density for Whiskey Ridge subarea plan zones may be achieved only through the application of residential density incentive provisions outlined in Chapter 19.26 MMC.

2. The minimum lot sizes for duplexes apply to lots or parcels

which existed on or before the effective date of the ordinance codified in this chapter. All new duplex lots created through the subdivision or short subdivision process shall be a minimum of 7,200 square feet in size, must include a ``duplex disclosure,'' and comply with the density requirements of the comprehensive plan (eight units per acre for the Single Family zone).

3. These standards may be modified under the provisions for zero lot line and townhome developments.

4. a. Height limits may be increased when portions of the structure which exceed the base height limit provide one additional foot of street and interior setback beyond the required setback for each foot above the base height limit; provided, that the maximum height may not exceed 60 feet.

b. Multiple-family developments, located outside of Planning Area 1, abutting or adjacent to areas zoned as single-family, or areas identified in the comprehensive plan as single-family, may have no more floors than the adjacent single-family dwellings, when single-family is the predominant adjacent land use.

5. Applies to each individual lot. Building coverage and impervious surface area standards for:

a. Regional uses shall be established at the time of permit review; or

b. Nonresidential uses in residential zones shall comply with MMC 19.12.200.

6. a. The densities listed for the single-family zones are net densities.

b. Mobile home parks shall be allowed a maximum density of eight dwelling units per acre, unless located in the SF, R-4.5 or R-6.5 zones, in which case they are limited to the density of the underlying zone.

7. The standards of the R-4.5 zone shall apply if a lot is less than 15,000 square feet in area.

8. On a case-by-case basis, the street setback may be reduced to 10 feet; provided, that at least 20 linear feet of driveway is provided between any garage, carport, or other fenced parking area and the street property line, or the lot takes access from an alley. The linear distance shall be measured in a straight line from the nearest point of the garage, carport or fenced area to the access point at the street property line. In the case of platted lots, no more than two consecutive lots may be reduced to 10 feet.

9. Residences shall have a setback of at least 50 feet from any

property line if adjoining an agricultural zone either within or outside the city limits.

10. For townhomes or apartment developments, the setback shall be the greater of:

a. 20 feet along any property line abutting R-4.5 through R-8, and RU zones; or

b. The average setback of the R-4.5 through R-8 zoned single-family detached dwelling units from the common property line separating said dwelling units from the adjacent townhome or apartment development, provided the required setback applied to said development shall not exceed 60 feet. The setback shall be measured from said property line to the closest point of each single-family detached dwelling unit, excluding projections allowed per MMC 19.12.160 and accessory structures existing at the time the townhome or apartment development receives approval by the city.

11. On any lot over one acre in area, an additional five percent may be used for buildings related to agricultural or forestry practices.

12. The maximum building coverage shall be 10 percent where the lot is between 1.0 and 1.25 acres in area. The maximum shall be 15 percent where the lot is less than one acre in area.

13. The impervious surface area shall be:

a. Twenty percent when the lot is between 1.0 and 1.25 acres; and

b. Thirty-five percent when the lot is less than one acre in area.

14. Outside Planning Area 1, in the single-family high density zone, the small lot zone will be allowed through the PRD process with the minimum lot size being 5,000 square feet.

15. Single-family lots and units within the Whiskey Ridge MFL and R-12-28 zones shall utilize the dimensional requirements of the R-8 zone, except the base density.

16. Provided that the front yard setback shall be established as the point at which the lot meets the minimum width requirements. On a case-by-case basis, the street setback may be reduced to the minimum of 20 feet; provided, that the portion of the structure closest to the street is part of the ``living area,'' to avoid having the garage become the predominant feature on the lot.

17. Heights may be increased to 160 feet on nonresidential land uses in R zones, including publicly owned facilities, if co-location is provided.

18. A 25-foot setback only required on property lines adjoining residentially designated property, otherwise no specific interior setback requirement.

Section 6. Chapter 19.26 of the Marysville Municipal Code is hereby amended by amending MMC 19.26.020 to read as follows:

19.26.020 Permitted locations of residential density incentives.

Residential density incentives (RDI) shall be used only on sites served by public sewers and only in the following zones:

(1) In R-12 through R-28 zones;

(2) Planned residential developments; and

(3) In MU, CB, GC and DC zones.

(4) SF, MF, and MU zones within the Whiskey Ridge master plan. (Ord. 2411 § 1, 2002; Ord. 2131, 1997).

Section 7. Severability.

If any section, sentence, clause, of phrase of this Ordinance is held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause, or phrase of this Ordinance.

Section 8. Effective Date.

This Ordinance shall take effect five days after its publication by summary.

PASSED by the City Council and APPROVED by the Mayor this _____ day of _____, 2007.

CITY OF MARYSVILLE

By_____
DENNIS L. KENDALL, Mayor

ATTEST:

By_____
City Clerk

ORDINANCE - 7
/wpf/mv/ord.Comp Plan Update

Approved as to form:

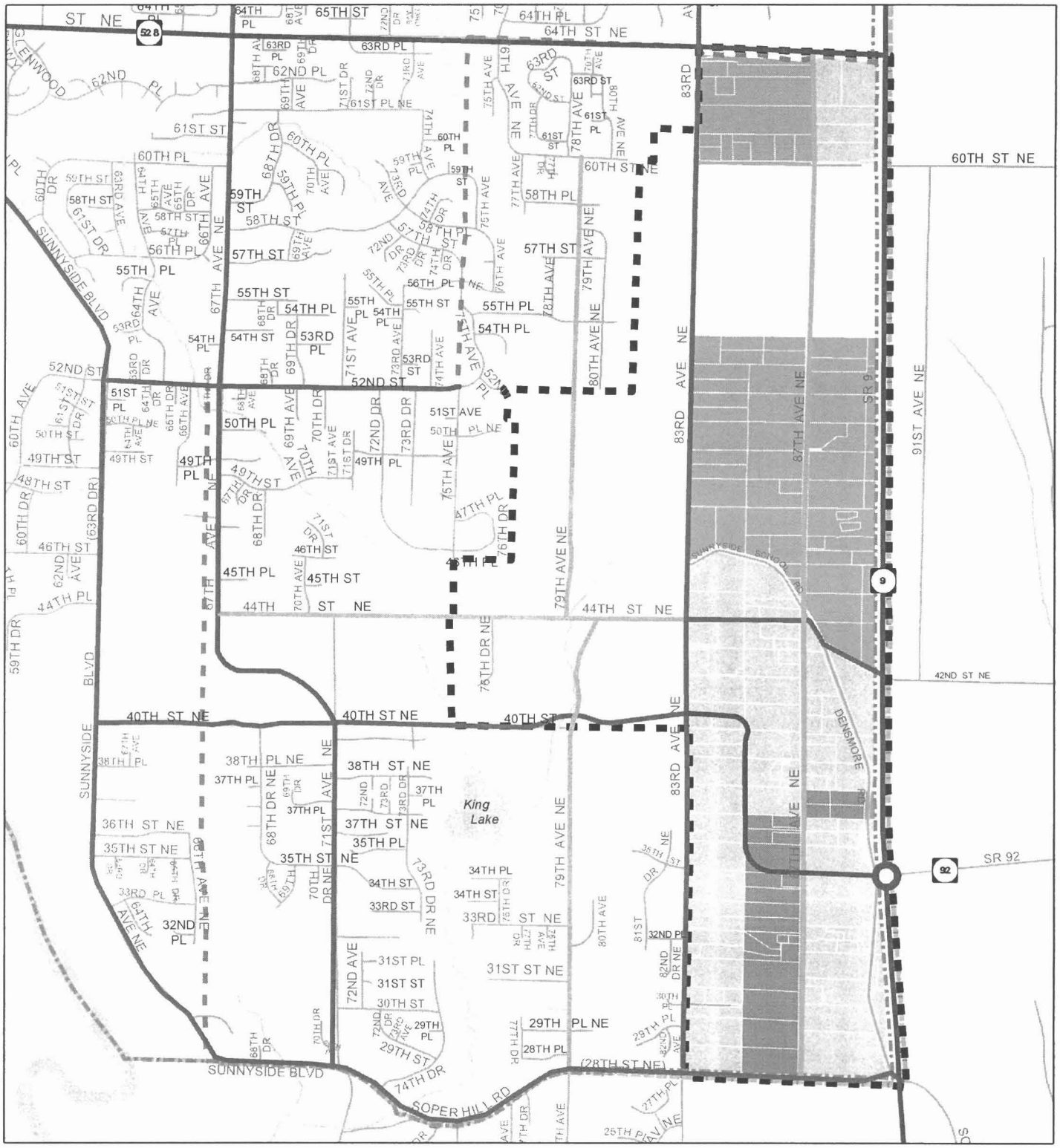
By_____
GRANT K. WEED, City Attorney

Date of Publication: _____

Effective Date (5 days after publication): _____

EAST SUNNYSIDE-WHISKEY RIDGE SUBAREA PLAN

City of Marysville
May 14, 2007



City of Marysville
DRAFT

Whiskey Ridge Master Plan

East Sunnyside Neighborhood

Preferred Alternative

January 2007

Marysville

0 500 1,000 2,000 Feet

N

- Marysville City Limits
- Marysville Urban Growth Area
- East Sunnyside Neighborhood
- Master Plan Expansion Area
- Parcels

Proposed Arterials
- PRINCIPLE
- MINOR
- COLLECTOR

- Community Business
- Mixed Use
- Multi-Family Medium
- Multi-Family Low
- Single Family 4.5-8
- Single Family 6.5
- Recreation

PLANNING AREA #4: EAST SUNNYSIDE/WHISKEY RIDGE NEIGHBORHOOD

This neighborhood is the southeasterly corner of Marysville. It is bounded by Soper Hill Road on the south, Highway 9 on the east, 64th Street NE/SR 528 on the north, 67th Avenue NE and 75h Avenue NE on the west, and 52nd Street NE. The East Sunnyside neighborhood is a beautiful area of westward views, steep hillsides, ravines, and woods.

A special study area has been designated within this neighborhood called the East Sunnyside/Whiskey Ridge subarea plan. The subarea plan follows the general planning area discussion for this neighborhood.

I. Land Uses

The East Sunnyside/Whiskey Ridge neighborhood includes approximately 1595 acres.

a. Residential

Residential uses include high density single family and medium density single family uses. High density single family, permits duplexes outright.

b. Commercial

A potential Neighborhood Commercial location is at the intersection of 44th Street NE and 71st Avenue NE. Larger Community Commercial uses are located along Hwy 9, from the SR 92 south to Soper Hill Road. Mixed use commercial areas are also proposed along the west side of 83rd Avenue, serving as a transition use between adjoining Community Commercial and Multifamily land uses.

Table 4-25 details the land use distribution for this neighborhood under the preferred alternative.

Table 4-25 East Sunnyside/Whiskey Ridge Neighborhood Land Capacity, 2005 – 2025

Land Use Designation	CB	MU	MFM	MFL	SFH	SFM	Rec	Total
Total Acres	69	47.1	32.6	147.6	1138.6	111.9	28	1574.8
Buildable Acres	58.2	46.0	30.9	142.8	960.8	107.1	20.5	1366.3
Existing DU's	10	17	12	51	608	197	1	896
Existing Pop.	20	49	35	148	1216	394	2	1864
Existing Employees	0	0	0	0	0	0	0	0
Additional DU's	0	247	245	690	2512	108	0	3802
Additional Pop.	0	716	711	2001	5024	216	0	8668
Additional Employees	480	177	0	0	0	0	0	657
Total DU's	10	264	257	741	3120	305	1	4698
Total Population	20	766	745	2149	6240	610	2	10532
Total Employees	480	177	0	0	0	0	0	657

II. Housing & Employment Analysis

Table 4-26 identifies existing and planned dwelling units, population, and employment for 2005 and 2025. Figure 4-55 shows the general land use distribution for this neighborhood.

Table 4-26 Housing and Employment, 2005 and 2025

	2005	2025
Dwelling Units	896	4698
Multi Family DU's		1262
Single Family DU's		3245
Population Estimate	1864	10532
Employment Estimate	0	657

Figure 4-55 East Sunnyside/Whiskey Ridge Neighborhood Land Use

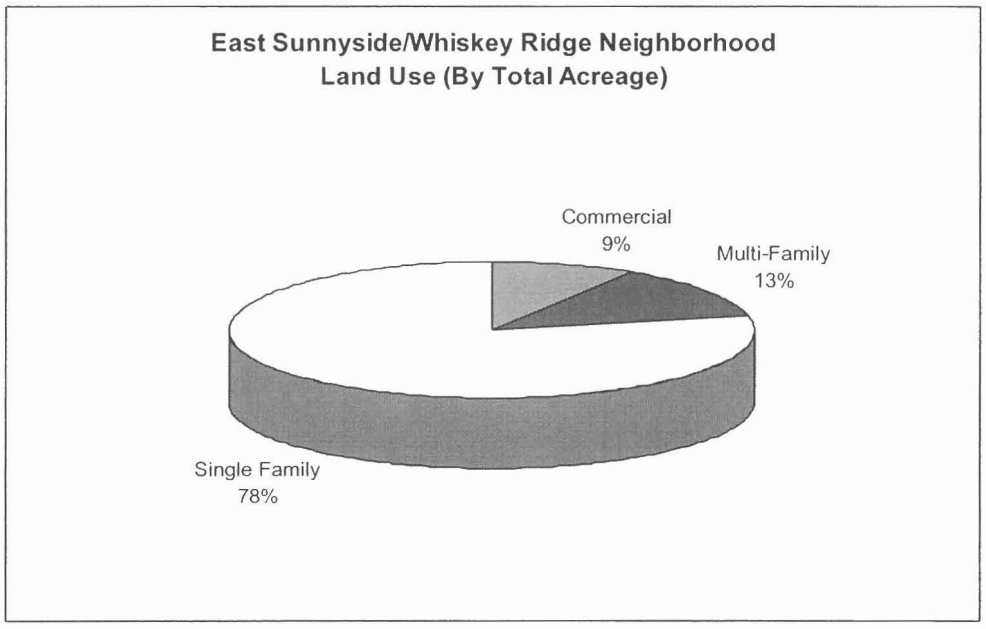


Table 4-26 and Figure 4-55 depict the future land use mix by acreage and dwelling units. The preferred alternative would produce a Multi-family to Single Family ratio of 72% single family and 28% multifamily unit distribution within the planning area. It is anticipated that the resulting single family may be higher than reflected in these figures, as developers may propose to construct single family units in multiple family zones.

III. Transportation

a. Arterial Street Inventory

Streets and classifications providing access and circulation within the planning area and to surrounding neighborhoods and communities are listed in Table 4-27.

Table 4-27 East Sunnyside/Whiskey Ridge Neighborhood Streets and Classifications

Street	Classification	Lanes	Description/Comment
64th Street/SR 528	Principal Arterial 4th Street to SR-9	5	Arterial Streetscape
35th/40th Street (SR 92 extension)	Principal Arterial (83rd Street to SR-9)	5	Arterial Streetscape
Sunnyside Blvd.	Minor Arterial (3rd Street to Soper Hill Rd)	3	Arterial streetscape Bicycle lanes
Soper Hill Road	Minor Arterial (Sunnyside to SR-9)	3	Arterial streetscape Bicycle lanes
83rd Avenue NE	Minor Arterial (64th Street to Soper Hill Road)	3	Arterial Streetscape Bicycle lanes (parts)
67th Avenue	Minor Arterial (64th Street to 44th Street)	3	Arterial streetscape Bicycle lanes
44th Street	Minor Arterial (83rd Avenue to SR-9)	3	Arterial Streetscape
52nd Street NE	Collector Arterial (Sunnyside to 75th Avenue)	2	Bicycle lanes
44th Street	Collector Arterial (67th Avenue to 83rd Avenue)	2	Bicycle lanes
35th/40th Street (SR 92 extension)	Collector Arterial (Sunnyside to 83rd Avenue)	2	Arterial Streetscape
67th/71st Avenues	Minor Arterial (44th Street to Soper Hill Road)	2	
44th Street	Collector Arterial (Sunnyside to 83rd Avenue)	2	
79th Avenue	Collector Arterial (40th Street to Soper Hill Road)	2	
87th Avenue NE (Soper Hill to SR 528)	Collector Arterial	2	Arterial Streetscape Bicycle lanes (parts)

The appropriate standard for classified roads is included for reference and information in Appendix A of the Whiskey Ridge subarea plan, however it should be noted that this standard can be revised through the Engineering Design and Development Standards (EDDS) amendment procedure through subsequent action by the City.

b. Arterial Street Facility Needs within the Neighborhood

Projects listed here are identified transportation needs within the subarea. Project descriptions, need, cost, funding and timing are identified in the Table 4-28.

Table 4-28 East Sunnyside/Whiskey Ridge Major Road Projects

Improvement	Description	Timing & Need	Estimated Cost or Proponent if not City of Marysville project
SR 528 (83rd Avenue to Hwy 9)	Widen to 5 lanes with an exclusive bicycle lane.	Capacity	WSDOT Developer Frontage Improvements
35th/40th Street (SR 92 extension) from 83rd Ave to SR-9	Dedicate right of way and construct 5 lanes	Identified in Whiskey Ridge Subarea Plan for area circulation	$2,000,000 – City & Developer Frontage Improvements
Sunnyside Blvd. (52nd Avenue NE to South City limits)	Widen to 3 lanes with an exclusive bicycle lane.	Recommended 6 year improvements	$3,700,000 – 6 year plan, funding anticipated within 6 years from transportation revenues.
Soper Hill Road	Construct to standard	Identified in Whiskey Ridge Subarea Plan for area circulation	Developer Frontage Improvements
83rd Avenue NE (64th Street to Soper Hill Rd)	Dedicate additional right of way and Construct to standard	Identified in Whiskey Ridge Subarea Plan for area circulation	Developer Frontage Improvements
67th Avenue (40th St NE to 88th St NE)	Dedicate additional right of way and Construct 8 foot shoulders lacking curb, gutter and sidewalk	Recommended 20 year improvements	$300,000-6 year plan, funding anticipated within 6 years from transportation revenues.
44th Street(connecting 67th Ave NE to SR-9)	Dedicate right of way and construct to standard	Identified in Whiskey Ridge Subarea Plan for area circulation	$3,700,000 City & Developer Frontage Improvements
40th Street (connecting Sunnyside to 83rd Avenue NE.	Dedicate right of way and construct to standard	Identified in Whiskey Ridge Subarea Plan for area circulation	$10,600,000 City & Developer Frontage Improvements
67th /71st Avenue NE (connecting 44th Street NE and Soper Hill Road)	Dedicate right of way and construct to standard	Identified in Whiskey Ridge Subarea Plan for area circulation	Developer Frontage Improvements

c. Transit Facilities and Services

Currently, Community Transit Route 221 is the primary transit service in the neighborhood. It operates on SR 9 and 64th Street (SR-528) connecting Lake Stevens to

Quil Ceda Village via downtown Marysville. Service is provided all day long at a frequency of about one bus per hour. Two commuter routes (CT-421 and CT-821) pass by the corner of SR 528 and 67th Street. Service is limited to the morning and afternoon commuter hours.

Transit service areas are usually defined as the properties within 1,500 feet of a bus route where stops are made. There are currently bus stops on 64th Street, which limits effective coverage to East Sunnyside residents within 1,500 feet of 64th Street.

As the East Sunnyside / Whiskey Ridge Community grows to its capacity of nearly 12,000 residents, it will require additional public transit services. The future transit routes should be designed to provide service to within 1,500 feet of as many residents as possible. It is likely, for example, that CT-221 could be rerouted from SR-9 to a collector or minor arterial street within the Whiskey Ridge community, such as 83rd Avenue, to allow more frequent stops and improved coverage.

It is prudent therefore, for the City to design streets to support future bus routes to serve future residents and employees. Street design considerations should include providing additional right-of-way for bus stop locations, bus shelter (pad) locations, and improved sidewalk or trail access. This infrastructure should be considered a mitigation expense in the same manner as road facilities and non-motorized facilities.

It is recommended that design of the following streets should include provisions for future bus routes as shown on ***Figure 4-56:***

- Sunnyside Boulevard
- Soper Hill Road
- 40th / 35th Street / SR-92
- 83rd Avenue
- 67th / 71st Avenues

Assuming that bus routes will continue to operate on 64th Street, this will provide very good coverage of the East Sunnyside / Whiskey Ridge Community as shown on ***Figure 4-56.***

d. Non Motorized Facilities

Multi-purpose trails, bike lanes, sidewalks and other non-motorized facilities should be provided for recreational purposes and to encourage commuters to use modes other than automobiles to travel to work places and schools. In this regard, it is important to locate these facilities near parks, schools, higher density residential, and bus routes.

It is also important to maintain a grid system of non-motorized facilities so that pedestrians and cyclists are not discouraged by long winding routes. Sidewalks should be provided on all arterial roads unless a road-side multi-purpose trail is provided.

A network of trails and bike lanes is shown on ***Figure 4-57.***

Multi-purpose Trails are recommended in the following corridors:

- ***Densmore / Sunnyside School Road*** right-of-way should be converted to a north-south trail or a local access road with a road-side trail.
- ***A PSE Corridor*** runs parallel and west of 79th Avenue from Soper Hill Road to 64th Street and beyond. Proposed as the Whiskey Ridge Trail it would provide excellent north-south connections to homes, parks, shops and bus routes
- ***52nd Street*** would provide an excellent east-west opportunity to connect Sunnyside Boulevard to Deering Wildflower Acres and the potential Whiskey Ridge (PSE) Trail.

Bike Lanes *(or multi-use road-side trails)* are recommended in the following corridors:

- ***Sunnyside Boulevard / Soper Hill Road*** corridor should include bike lanes and sidewalks or a multi-use road-side trail.
- ***67th / 71st Avenues*** from 64th Street to Sunnyside/Soper Hill Road should include bike lanes or a multi-use road-side trail.
- ***44th Street*** could be a preferably route to 40th Street for bike lanes from 67th Avenue to SR-9 and the Densmore/School Road Trail. A connection west of 67th Avenue to Sunnyside Boulevard would be desirable.
- ***54th Street/55th Place*** could use bike lanes or a trail to provide continuity of the 52nd Street trail east to the Whiskey Ridge (PSE) Trail.
- ***87th Avenue*** would be a preferable north-south route to 83rd Avenue for bike lanes or a multi-use road-side trail due to the proximity of 83rd Avenue to the potential Whiskey Ridge Trail. 87th Avenue would also provide continuity of the Densmore / Sunnyside School Trail.

d. Transportation Strategies and Issues (Arterial Streets, Transit, and Non-motorized Facilities)

Transportation Projects

A number of the projects listed above are unfunded. As a result, it will be especially important to work with property owners, citizens and outside agencies to explore opportunities for project financing. In many cases, along existing arterial right of way, developer frontage improvements will accomplish widening and construction of a full urban street standard. In other cases, a road improvement district (RID) may provide a mechanism for moving the projects forward. The subarea plan strategies for East Sunnyside/Whiskey Ridge also include recommendations for use of residential density incentives and creditable improvements (toward impact fees) to accomplish needed but unfunded projects within the immediate neighborhood.

The growth in Sunnyside is occurring at much higher rates here than in other parts of the city. Currently the minor and collector arterial system is developed to rural standards with site specific developer improvements along development frontage. This leaves many unimproved and discontinuous sections along major roads. Growth must be accompanied by improvements to these rural roads to provide urban level street, stormwater and sidewalk improvements. Increases in residential densities should only be proposed if transportation facilities can be enhanced by concurrent passage of an RID, impact fee assessments or other mechanisms to fund needed road improvements. The transportation element identified key transportation connections that must be provided with new development. It is essential that these connections occur with new development.

1) Sunnyside Boulevard has become a major thoroughfare for vehicles traveling to Interstate 5 and Everett as well as Highway 2 and Lake Stevens. Design costs for Sunnyside Boulevard, Third Street to 52nd Street NE, were moved to the 6 year transportation improvement program project list in 2006 as high growth within the subarea has increased traffic and urgency to construct an additional lane (3-lane section) and a bike path for bike and pedestrian travel.

2) Installation of the signal at 52nd Street NE & Sunnyside Boulevard (listed in Sunnyside Projects, Table 4-25) is a key priority for this area, as the intersection is currently below the accepted level of service.

3) 35th/40th Street (SR 92 Extension). The Whiskey Ridge subarea plan identified creation of a new road alignment at 40th Street/35th Street to SR-9. This proposed road would provide a connection to SR-9 at the intersection of SR-92. It would provide another east-west arterial other than Sunnyside Boulevard to serve the growing southwest portion of the Marysville UGA. It will likely alleviate the need to widen Sunnyside Blvd and Soper Hill Road, south of 52nd Street to 5 lanes, which would have affected many of the new developments and existing facilities along Sunnyside Blvd.

4) 67th Avenue/71st Avenue connection. Due to topographic, critical area, and County approved development patterns, 67th Avenue NE cannot be continued south as an arterial south of 44th Street NE. This significantly reduces the arterial system functionality for the southeast portion of the UGA. The City is recommending that 67th Avenue NE be connected to 71st Avenue NE between 40th Street NE and 44th Street NE to provide a southern connection for 67th Avenue NE to Soper Hill Road. This connection would also extend 67th Avenue NE to 40th Street NE, and also improve the intersection at 44th Street NE and 67th Avenue NE which is a 90 degree arterial turn.

5) Sunnyside Boulevard/Soper Hill Road Bike Lanes. Bike lanes are proposed on Sunnyside Boulevard to Soper Hill Road. This will provide a bicycle access route between Marysville and Lake Stevens.

6) 67th Avenue NE/71st Avenue Bicycle Lanes. A route is planned between Arlington to the north from SR 531 to 44th Street NE connecting to Sunnyside/Soper Hill Road. This would provide a bicycle route between Arlington/Marysville and Lake Stevens.

7) 44th Street NE Bicycle Lanes. This will provide a route between 67th Avenue to SR-9 and the Densmore/School Road Trail.

8) 83rd/87th Avenue NE Bicycle Lanes. Bike lanes would be constructed on 83rd Avenue, north of 44th Street NE and along 87th Avenue, south of 44th Street NE. This would also provide continuity of the Densmore / Sunnyside School Trail Bike lanes are planned from 88th Street NE extension to Soper Hill Road which will ultimately provide connection to the Centennial Trail to the north. This trail also provides connections to the towns of Arlington, Lake Stevens and Snohomish.

9) Whiskey Ridge (PSE) Trail. A proposed pedestrian/multi-purpose trail is proposed along the Puget Sound Energy transmission easement east of 79th Avenue NE. This trail will provide a separated walk path between the Getchell neighborhood and Southeast Marysville. This trail is planned to interconnect with the Centennial Trail. Additional interconnections should be planned from the Whiskey Ridge study area and new developments. Developments in Snohomish County were not consistently required to provide a recreation easement to the City of Marysville, therefore the southern portion of the trail should be rerouted south of 44th Street NE for future trail construction to provide a continuous route.

10) Densmore/Sunnyside School Road right of way. The plan proposes designation of a trail link at 44th Street to Densmore Road. Densmore Road should be converted to a local access road with a modified road standard with multi-use trail for bicycles and pedestrians. This would connect to planned sidewalks and bike lanes on Soper Hill Road.

11) 52nd Street NE. This collector arterial would provide an excellent east-west opportunity to connect Sunnyside Boulevard to Deering Wildflower Acres and the potential Whiskey Ridge (PSE) Trail.

12) 54th Street/55th Place could use bike lanes or a trail to provide continuity of the 52nd Street trail east to the Whiskey Ridge (PSE) trail.

Arterial Streetscape and Gateway treatments

The majority of the principal, minor and collector arterials are identified as streetscape arterial within this plan. The City shall provide standards for plantings and medians along these arterials, and provide for attractive pedestrian crossings at key intersection and gateways to the City. The southern entrance to the City at Soper Hill Road and Highway 9 and the entrance at the proposed access at Hwy 92 and Hwy 9 is a designated gateway to the City and subject to the Gateway master plan for design and construction of a gateway treatment.

IV. Parks and Recreation

This planning area has two existing park sites, Deering Wildflower Acres and a potential site at the Sunnyside Wells Reservoir, as listed in Table 4-29. There is potential for a trail along the power line easement and also potential connection to the Centennial Trail as well as the Ebey Waterfront Trail. Figure 9-2 in the Parks and Recreation Element illustrates existing and proposed trail systems in the UGA.

Table 4-29 East Sunnyside/Whiskey Ridge Neighborhood Park Facilities

Park	Location	Size (acres)	Description
Deering Wildflower Acres	4708-79th Avenue NE	30	This park offers trails, natural areas, a meeting room and caretaker's quarters.
Sunnyside Well site	40th Street NE & 71st Avenue NE	31	This site is undeveloped and owned by the Marysville utility fund. Planned uses include a fire station and new water reservoir.

Additional public park sites should be provided to serve additional population anticipated in this subarea. Park facilities should include opportunities for active recreation. The following need has been identified for the subarea:

Park	Location	Size (acres)	Description
Walking/Cycling Trails	Whiskey Ridge Trail and improvements per Whiskey Ridge subarea plan; Densmore Road multi-use trail		Dedication and construction of trails along PSE transmission line easement and along Densmore Road
Community Park	Whiskey Ridge subarea boundary	10	Identify site, purchase and develop
Community Open Space Park	East Sunnyside/Whiskey Ridge subarea plan	10+	Potential acquisition along King Creek
Neighborhood Park	Whiskey Ridge subarea boundary	1.5-5	Identify site, purchase and develop

VI. Public Services and Facilities

a. Schools

Two school districts serve this neighborhood. The Marysville School District provides school service generally west of 75th Avenue NE and the Lake Stevens School District provides service east of 75th Avenue NE.

The Marysville School District has one planned elementary school proposed for this subarea. The District plans to construct the facility within the next 6 years. The site has been identified south of 44th Street NE, east of 71st Avenue NE.

Additional growth in the Lake Stevens School District is expected to result in need for an additional elementary school within the area. The Lake Stevens School District owns property south of Sunnyside School Road, east of 87th Avenue NE, which is used for their bus parking and maintenance facility.

School	Location	Size (acres)	Description
Marysville School District	44th Street NE & 71st Avenue NE	10	Planned elementary school.
Lake Stevens School District		10	Site to be identified.

b. Water

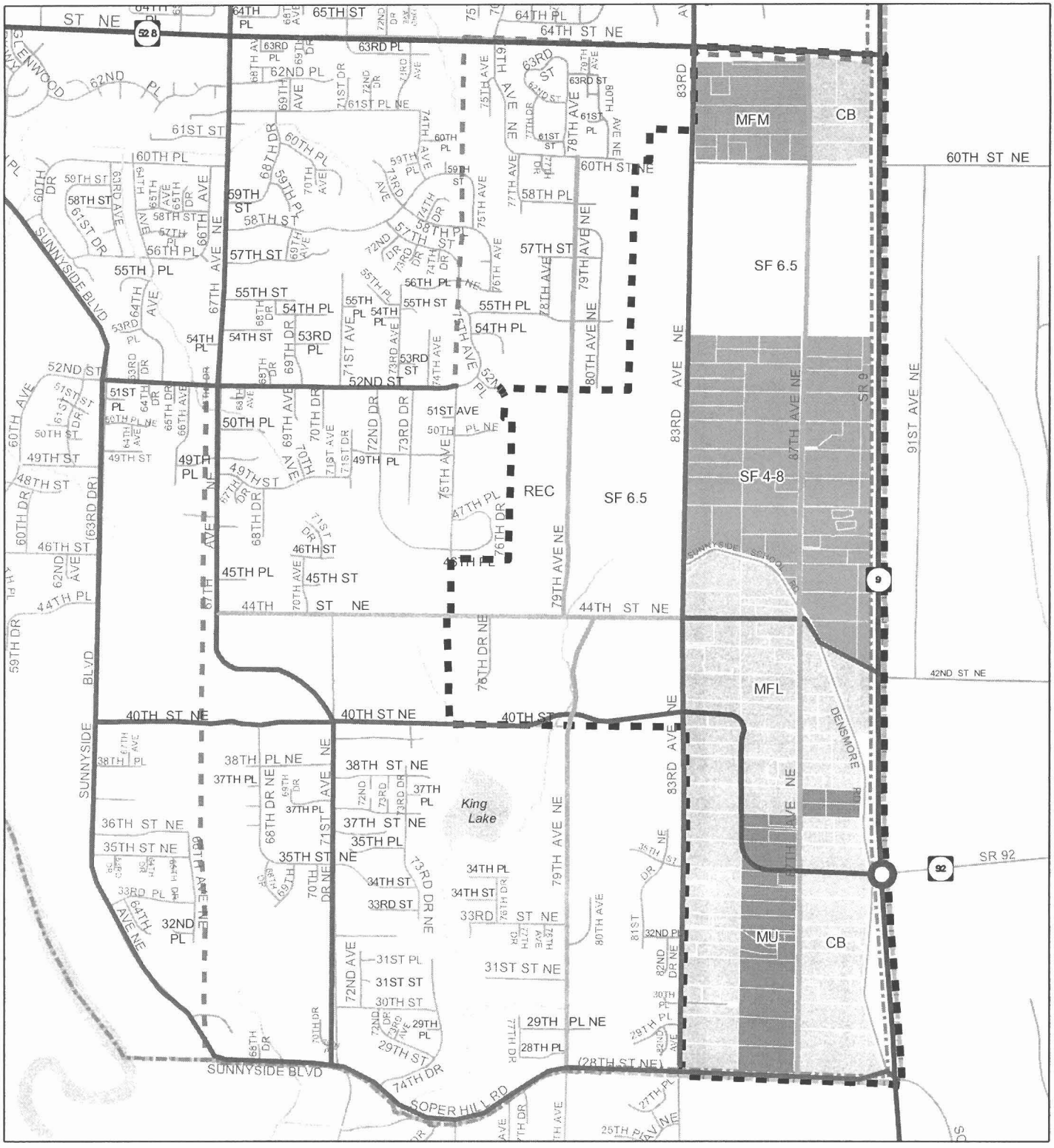
Figure 4-56 identifies water lines within the East Sunnyside/Whiskey Ridge neighborhood.

c. Sewer

Figure 4-57 identifies sewer lines within the East Sunnyside/Whiskey Ridge neighborhood.

VII. Annexation and Development Strategies

UGA expansions within this neighborhood are subject to a subarea plan for area development. The subarea plan is adopted as part of the 2006 subarea update. The subarea plan should result in a land use mix consistent with the city housing mix goals and reflect a variety of housing types and densities. Property within UGA expansion areas shall be required to annex to the city of Marysville as a condition of urban service provision (sewer service) and development proposals must be consistent with the city's subarea plan for the area.



City of Marysville
DRAFT
Whiskey Ridge Master Plan
Preferred Alternative

January 2007

Marysville

0 500 1,000 2,000 Feet

N

Marysville City Limits
Marysville Urban Growth Area
East Sunnyside Neighborhood
Master Plan Expansion Area
Parcels

Proposed Arterials
PRINCIPLE
MINOR
COLLECTOR

Preferred Alternative
Community Business
Mixed Use
Multi-Family Medium
Multi-Family Low
Single Family 4.5-8
Single Family 6.5
Recreation

WHISKEY RIDGE SUBAREA PLAN

The subarea plan area is a subset of Planning Area 4. The preferred alternative recommends an expansion of the original subarea plan and is reflected in Figure . The expansion would result in a boundary of SR 528 on the north, Highway 9 on the east, and Soper Hill Road (28th Street NE) on the south and a westerly boundary generally west of 75th Avenue NE. The subarea plan study area includes the entirety of the East Sunnyside/Whiskey Ridge neighborhood area however, as the subarea plan includes an assessment of the surrounding area transportation and land uses with recommendations for additional modifications to zoning and development regulations for the entire neighborhood planning area. It is an area that forms the southeastern most edge of Marysville and is where the City abuts the city of Lake Stevens. This area provides a gateway into and out of Marysville and as a result, Marysville wishes to create a distinctive urban edge and facilitate the development of enduring and long- term neighborhoods for a growing community. Adoption of the subarea plan and accompanying development regulations will establish zoning for this area.

I. Background

The City of Marysville included the Whiskey Ridge area in the 2005 City comprehensive plan update. The Whiskey Ridge subarea plan area was added to the Urban Growth Area by Snohomish County in February 2006. The area was annexed to the City of Marysville in December 2006.

II. Land Use

The Whiskey Ridge subarea plan area covers 444 total gross acres. The preferred land use plan is shown in Figure 4-58. It is largely undeveloped and property is held in large predominately 10+ acre tracts. The development of the subarea plan is based on several guiding principles and a vision for creation of enduring neighborhoods. These principles are adapted from Smart Growth policies, existing City of Marysville comprehensive plan goals & policies, and input of community leaders and citizens through land use forums and discussions.

Guiding Principles and Policies

1. Mix Land Uses
2. Take Advantage of Compact Building Design
3. Create a Range of Housing Opportunities and Choices
4. Create Walkable Communities and Five-Minute Neighborhoods
5. Foster Distinctive, Attractive Communities with a Strong Sense of Place
6. Preserve Open Space, Natural Beauty, and Critical Environmental Areas
7. Increase Densities in Appropriate Locations
8. Promote Higher Quality Density by Incentive Zoning
9. Connect People to Places
10. Create Opportunities for a Healthy Community with opportunities for Physical Activity
11. Create Great Places for People

Land Use Vision

The vision for Whiskey Ridge is to create an urban community that provides an attractive gateway into Marysville and that becomes a prototype for developing neighborhoods within the City. Marysville included the Whiskey Ridge area within its comprehensive plan and required annexation of the community prior to development application or approval for the primary reason of wanting to exert land use control. . Assignment of land uses and land use regulation provides the greatest tool for ensuring an area's long term vitality and productivity to the community at large. Marysville was interested in ensuring a land use mix within this area to balance the largely single family residential growth occurring throughout the Sunnyside area and also to ensure that new neighborhoods were created as long-term neighborhoods.

The intent of the subarea plan is to ensure that and growth contributes to the community and to creation of a long-term neighborhood. Certainly new development within the UGA provides additional housing, some of which will be affordable in keeping with GMA goals. New residential developments in the Whiskey Ridge area should provide address site planning to integrate with the surrounding planned developments as well as provide attractive internal layout. What this means is that new neighborhoods should enhance rather than diminish the surrounding area. This might occur through provision of transportation improvements that promote neighborhood walkability, population at a density to support transit and commercial services in the surrounding area, support of new facilities stretched by continuing population growth, retention of open space or parks within developing neighborhoods. As the area's natural open spaces decreases, the substitution of quality urban places should fill the gap. While recognizing the importance of affordability, this plan encourages an appropriate mix of housing types meeting a range of income levels. "Starter" neighborhoods for low-income and first-time homebuyers should be well-designed so that singles and families might choose to continue living in these neighborhoods even when their income levels might allow alternative housing options due to the attractive neighborhood setting and well-proportioned building design. In addition, the City should encourage neighborhoods representing a diverse range of lot and unit types that provide a maximum array of housing choices for Marysville residents. This includes apartments for families as well as singles and seniors, convalescent care, group housing and ranging from low to upper-income single family homes.

The Whiskey Ridge area provides a combination of beautiful westward views to the Snohomish river estuary, Everett and Sound, as well as steep hillsides, ravines, and woods. Within the greater area, there are creeks, wetlands and large ponds that will be preserved under critical areas ordinances and buffers. These provide larger tracts for protection of area habitat and wildlife. Some of these nature preserves could be acquired by nonprofit agencies or the City to provide access to the public for nature trails and passive recreation. The future will include full urban services, an active civic life for its residents built around distinct, strong residential neighborhoods, quality schools and other public buildings, convenient shopping and services, and areas of employment. Marysville is also committed to creation of a land use mix that provides both jobs and housing with commercial services in proximity the area's growing residential community throughout the Sunnyside (Planning Area 3) and East Sunnyside/Whiskey Ridge (Planning Area 4) neighborhoods. The urbanized Whiskey Ridge should have an outstanding system of public services and facilities, including schools, fire station, open spaces, active and passive recreation parks, trails,

commercial plazas, gateway features, and streetscape corridors. The sensitive environmental areas of Whiskey Ridge (wetlands, forested areas, streams) are incorporated into the urban design of the area. Streams are buffered and protected from direct urban runoff. Trails for pedestrian, bicycle and other non-motorized use are incorporated into open space planning and buffers, where appropriate. These sensitive areas remain in native plantings to provide water quality and quantity protection. Development regulations require identification and protection of significant stands of trees.

Shopping is concentrated around transportation corridors, specifically Highway 9. Accesses to shopping and employment areas are direct and efficient, capitalizing on the proximity to SR-9, SR-92, Soper Hill Road and SR528. Commercial areas emphasize pedestrian uses and have parking to the side of or in back of buildings. Commercial buildings relate to the street, and have features, such as plazas, windows on the street, distinctive entrances. Street cafes, street furniture, kiosks, and landscaping should provide attractive gathering places for area residents. Some small scale office and general services are located within neighborhoods providing convenient services such as daycare, medical/dental and personal care within the neighborhood.

Higher density housing takes the form of small lot single family attached and detached, providing new opportunities for homeownership. Multiple family apartments are well designed to integrate with adjoining single family areas. All higher density housing is located within a 1/4 mile of an open space, park and/or trail system. Arterials in the higher density section are designed as boulevards, with a center planting area to provide additional green space and safe crossing for pedestrians.

A variety of medium density detached housing opportunities fill in the spaces between the centers separated by boulevards, parks and/or trails. The community also has areas of mixed use, (housing, services and retail uses) which provide a place to live and work where one can walk or bike to homes, stores and services all located in a concentrated area. Mixed-use areas have a variety of public spaces, including village greens, public art spaces, street trees, furniture and plazas.

Urban level roads are provided in a hybrid system of strong minor and collector arterials and neighborhood access streets. Residential developments are developed with good access and circulation to the collector/arterial system but developed in individual neighborhood clusters of 60-80 units per cluster.

Urban level services include stormwater, roads, sewer and water. Stormwater systems are attractively designed so that the streets are not dominated by large concrete structures along the arterial frontage. Instead natural pond systems, underground vaults are used when feasible. If structures are placed along in view of public right of way, they are setback with substantial landscaping or construction is a decorative block wall with landscaping along the street frontage.

Conclusions

The Whiskey Ridge subarea plan area should provide a more balanced residential and commercial land use mix. To date, the growth in this and the adjoining neighborhood has been predominately housing – single family housing. Future uses should include a blend of high and medium density single and low to medium density multiple family housing. The subarea plan also includes accompanying development regulations to implement the land use plan vision, goals, and policies. These include incentives for providing additional community features including capital improvements, gathering places, gateway monuments and other amenities to enhance the growing neighborhood.

KEY CONCEPTS

1. Ensure adequate public facilities are planned to serve the area. These facilities include:
    a. Southeast Marysville Fire Station
    b. Lake Stevens School District new elementary school
    c. Neighborhood Parks -1-2 (1.5-5 acres)
    d. Community Park – 1 (10+ acres)
    e. Community Open Space – 1 (10+ acres)
    f. Trails – Whiskey Ridge Trail and extensions through neighborhoods
2. Require that transportation impacts to this area are addressed through impact fees. Establish an impact fee that supports unfunded road projects needed for development within the subarea plan area.
3. Provide for commercial uses along Highway 9. These uses while visible from Highway 9, should provide a community orientation with four-sided architecture. Sites and buildings should be attractive from Highway 9, as well as adjoining public streets such as 87th Avenue NE and internal parking access.
4. Commercial uses at Highway 9 should provide for opportunities and building orientation towards surrounding neighborhoods. While visibility from Highway 9 may be important, the primary vehicle access and orientation should be from surrounding neighborhoods.
5. Collector and minor arterials should provide substantial landscaping in keeping with the arterial streetscape plans for each arterial.
6. A connection to Highway 9 at SR 92 should be provided to provide east-west connectivity between Sunnyside Boulevard and Hwy 9.
7. The planned SR92 connection should be constructed as a boulevard, with substantial landscaping and streetscape improvements between SR 9 and 87th Avenue NE.
8. Densmore Road should be considered for a modified road standard with wide multi-use trail for connection to the planned Whiskey Ridge trail to provide pedestrian and bicycle connectivity through Marysville, and promote pedestrian activity from the residential neighborhoods to the commercial center.
9. Plan Mixed use areas along Highway 9 adjacent to the commercial center.
10. Develop design standards and guidelines to upgrade the quality of neighborhoods.
11. Promote development of attractive streets by requiring consistent fencing, walls and landscaping along arterial street frontage.
12. Promote development of attractive streets by requiring stormwater systems along arterial streets to be natural pond systems, underground vaults, or set back with additional landscaping to screen visibility from roadways.
13. Provide for flexible zoning that allows for a mix of single family and multi-family uses within residential zones.
14. Use incentive zoning as a tool to encourage higher quality higher density development and physical improvements to the neighborhood.

15. Residential uses along Highway 9 will be protected from impacts of highway noise, visibility and future widening by construction of a decorative concrete wall.
16. Power lines (distribution) along arterial streetscape streets will be relocated underground to provide a clean visual line along the right of way frontage.
17. Create a gateway at Hwy 92 and SR 9 and at Soper Hill Road and SR9.

LAND USE ALTERNATIVES AND RECOMMENDED PLAN

Staff prepared six land use alternatives for analysis prior to recommending a preferred alternative. These alternatives reflected different transportation and land use concepts. The land use concepts were developed to coincide with the various transportation concepts under review. For instance, where a higher classification arterial is proposed, the land use was intensified along the connection.

The land use designations are also unique to the subarea plan, with density and dimensions for the residential zones defined in the plan. The zones are constructed using a base density as well as maximum density. The goal is to provide for a mix of lot sizes within a specified range and land use type. Within the single family zone, a base density of 4.5 du/acre is established by this plan. A maximum density of 8 du/acre is achievable utilizing MMC 19.26, Residential Density Incentives. This allows projects to provide additional on-site and off-site neighborhood amenities to attain a higher project density. It will also create a mix of lot sizes within each zones. Within the multifamily zone, a base density of 6 is established for single family detached units, and 10 du/acre for multifamily buildings. The zone allows a maximum density of 18 du/acre. Single famly and multiple family units are allowed within multi-family zones. The Mixed Use zone has a base density of 12 du/acre and a maximum of 18 du/acre. The Mixed use zone allows multi-family developments, commercial uses, and mixed commercial/multi-family projects. Single family development is not permitted within the Mixed Use zone. The density and dimensions for each zone are described in Section VIII of this plan.

Following Planning Commission workshops, public open house, agency comment, and technical review of transportation issues, a preferred alternative was developed. The preferred alternative will implement the "Key Concepts" identified in this plan. Future development within the subarea plan will be required to meet the objectives of this plan and referenced standards.

Table 4-25details the land use distribution for each alternative.

Table 4-25 Preferred Alternative Land Capacity, 2005 – 2025

Land Use Designation	CB	MU	MFM	MFL	SFH	REC	Total
Total Acres	69.0	47.1	32.6	174.6	428.5	23.3	748.1
Builable Acres	58.2	46.0	30.9	142.8	378.6	16.9	673.5
Existing DU's	10	17	12	51	119	1	210
Existing Pop.	20	49	35	148	238	2	492
Existing Employees	0	0	0	0	0	0	0
Additional DU's	0	247	245	690	1064	0	2246
Additional Pop.	0	716	711	2001	2128	0	5556
Additional Employees	480	177	0	0	0	0	657

Total DU's	10	264	257	741	1183	1	2456
Total Population	20	766	745	2149	2366	2	6048
Total Employees	480	177	0	0	0	0	657

Following workshops with the Planning Commission, public open house, and solicitation of public comment, Community Development staff is recommending a preferred alternative. The preferred alternative most closely resembles Alternative 4, of the initially identified six alternatives. The preferred alternative is shown in Figure 4-58.

III. Housing & Employment Analysis

Existing and 2025 planned dwelling units, population, and employment figures are listed in Table 4-30.

Table 4-30 Preferred Alternative Housing and Employment, 2005 and 2025

	2005	2025
Dwelling Units	210	2456
Multi family DU's		1262
Single Family DU's		1183
Population Estimate	492	6048
Employment Estimate	0	657

Figure 4-56 Whiskey Ridge Subarea Plan Land Use

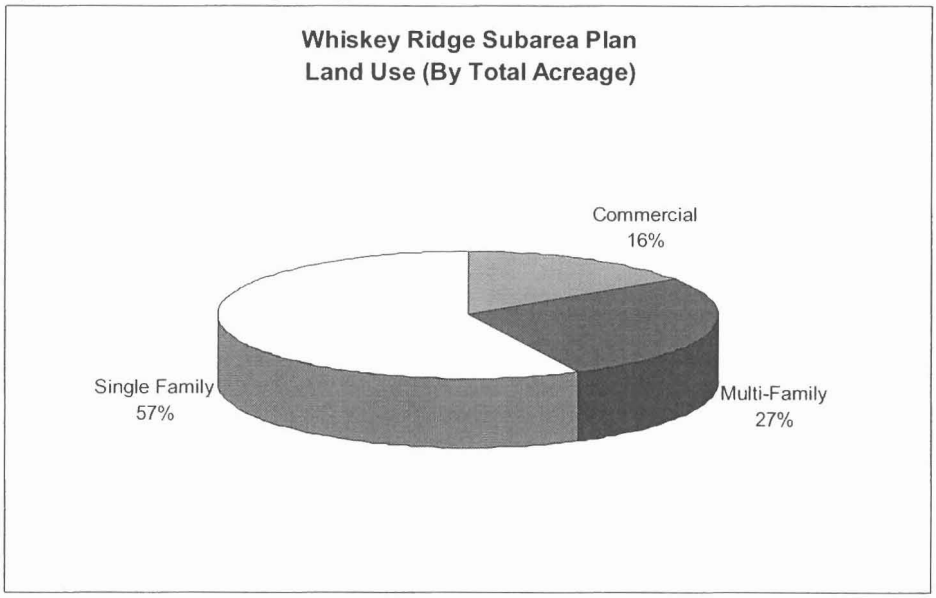


Table 4-30 and Figure 4-56 depict the future land use mix by acreage and dwelling units. The preferred alternative would produce a Multi-family to Single Family unit ratio of 48% single family and 52% multifamily unit distribution within the subarea plan. However, it is anticipated that the resulting single family unit distribution may be higher

than reflected in these figures, as developers may propose construction of single family units in multiple family zones.

IV. Transportation

a. Street Inventory

Fortunately this planning area has multiple existing north-south arterial right of ways on the east side of the study area. The addition of new east-west collectors and completion of designated collectors will strengthen area circulation. Due to rather extensive wetland and stream systems in the Sunnyside neighborhood (Planning Area 3), Development of the area immediately west of the subarea plan did not include planning for through arterials (minor or collector). This places more urgency on development of a more effective circulation system on East Sunnyside/Whiskey Ridge to allow traffic to move through the community at least impact to individual neighborhoods and to serve area growth for future decades.

Many of the existing right of ways were developed as access to farms and rural homesites. The majority of the road network consists of rural roadway sections with weathered asphalt pavement, narrow gravel shoulders if any and ditches for storm water collection.

The area streets are identified and classified in Section IIIa of the Planning Area 4 –East Sunnyside/Whiskey Ridge neighborhood summary. The following table identifies transportation segments addressed within the subarea plan.

Table 4-31
Recommended Arterial Road System

	From	To	Lanes
Principal Arterials			
SR 528 (64th St.)	4th Street	SR-9	5
35th / 40th Street (SR92 extension)	83rd Street	SR-9	5
Minor Arterials			
Sunnyside Boulevard	3rd Street	Soper Hill Road	3
Soper Hill Road	Sunnyside	SR-9	
83rd Avenue	64th Street	Soper Hill Road	3
67th Avenue	64th Street	44th Street	3
52nd Street	Sunnyside	75th Avenue	3
44th Street	83rd Avenue	SR-9	3
40th Street	Sunnyside	83rd Avenue	3
67th / 71st Avenues	44th Street	Soper Hill Road	3
Collector Arterials			
44th Street	67th Avenue	83rd Avenue	2
54th Street	83rd Avenue	SR-9	3
79th Avenue (parts)	40th Street	Soper Hill Road	2
87th Avenue (parts)	64th Street	Soper Hill Road	2

b. Transit Facilities and Services

Transit facilities and services are described in Section IIIc of the Planning Area 4 East Sunnyside/Whiskey Ridge neighborhood summary. Recommendations from IIIc to provide transit routes along identified streets shall be implemented with this plan.

Identified streets should be designed to support future bus routes to serve future residents and employees. Street design considerations should include providing additional right-of-way for bus stop locations, bus shelter (pad) locations, and improved sidewalk or trail access. This infrastructure should be considered a mitigation expense in the same manner as road facilities and non-motorized facilities.

It is recommended that design of the following streets should include provisions for future bus routes as shown on ***Figure 4-56***:

- Sunnyside Boulevard
- Soper Hill Road
- 40th / 35th Street / SR-92
- 83rd Avenue
- 67th / 71st Avenues

Assuming that bus routes will continue to operate on 64th Street, this will provide very good coverage of the East Sunnyside / Whiskey Ridge Community as shown on ***Figure 4-56.***

c. Transportation Strategies and Issues

This plan adds identifies additional road projects to the capital facilities plan transportation project list and provides for impact fees to support project funding. It also provides for the use of residential density incentives (RDI) to assist with construction of missing pedestrian and bicycle facilities within the community. New development is also required to construct frontage improvements (curb, gutter, sidewalks) along project frontage. The combination of these fees and regulatory mechanisms will provide necessary transportation facilities for proposed new construction.

Transportation Projects.

Primary transportation strategies and projects within the study area include the following:

1) Intersection improvement on the west side of Highway 9 at SR 92 to provide for connection to Marysville. This road connection, 35th/40th Street (SR 92 extension) is expected to provide alternative access from Sunnyside Boulevard to Highway 9.

2) Dedication and Construction of 35th Street NE/40th Street extension from SR 92 and Hwy 9.

3) Dedication and Construction of 67th Avenue NE extension to 71st Avenue NE between 44th Street NE and 40th Street NE.

4) Widening to 3 lanes and rebuild of Sunnyside Blvd between 52nd Street NE and Soper Hill Road.

5) Widening and frontage improvements for existing arterial streets within the study area, including 83rd Avenue NE, 87th Avenue NE.

The City will collect traffic impact fees to fund necessary road projects within the subarea plan area. Right of way and construction costs associated with these projects listed in Table 4-31 are creditable towards the traffic impact fee. Right of way dedications for these arterials may be included in net project area.

Projects included in the city-wide traffic impact fee are as follows:

Table 4-31 Whiskey Ridge Subarea Plan Road Projects (subset of Planning Area 4 projects)

Improvement	Description	Timing & Need	Estimated Cost or Proponent if not City of Marysville project
35th/40th Street (SR 92 extension between Sunnyside Blvd and SR-9).	Dedicate right of way and construct to standard	Identified in Whiskey Ridge Subarea Plan for area circulation	City and Developer Frontage Improvements $31,000,000
67tth Ave/71st Avenue (between 44th And 40th Street NE)	Dedicate right of way and construct to standard	Identified in Whiskey Ridge Subarea Plan for area circulation	City and Developer Frontage Improvements $17,000,000

Transit Facilities and Services within the Neighborhood.

Due to the lack of existing transit service in the study area, the City should work with Community Transit to identify new opportunities for transit stops, shelters and routes to serve the area as it develops. Potential for additional routes and stops may emerge at the intersection of SR 92 and Hwy 9 as Route 221 currently travels along Hwy 9. In addition, streets identified as potential transit streets, Section IVc above, shall be designed to accommodate future bus routes.

Non-motorized System Improvements

Non-motorized facilities are described in Section IVd of the Planning Area 4 East Sunnyside/Whiskey Ridge neighborhood section. Recommended facility improvements including construction of bicycle lanes and multi-use trails shall be implemented with this plan during road design and development review.

V. Parks and Recreation

Existing and needed facilities are identified in Section IV of the East Sunnyside/Whiskey Ridge Planning Area 4 discussion. There are no active park facilities within the subarea plan or larger planning area 4 boundary. Needed facilities are as follows:

Additional public park sites should be provided to serve additional population anticipated in the subarea plan and subarea. Park facilities should include

opportunities for active recreation. The following need has been identified for the subarea:

Park	Location	Size (acres)	Description
Walking/Cycling Trails	Whiskey Ridge Trail and improvements per Whiskey Ridge subarea plan		Dedication and construction of trails
Community Park	Whiskey Ridge subarea boundary	10	Identify site, purchase and develop active recreation facility
Community Open Space	East Sunnyside/Whiskey Ridge subarea boundary	10	Potential pond acquisition for natural area
Neighborhood Park	Whiskey Ridge subarea boundary	1.5-5	Identify site, purchase and develop

An open space network with parks and bicycle, pedestrian and other non-motorized access shall be integrated into development of this area. The alignment, along the PSE easement, called the Whiskey Ridge trail would provide a linear park throughout the East Sunnyside/Whiskey Ridge subarea.

VI. Environmental and Resource Management

a. Surface Water

The subarea plan area is within three drainage basins. From north to south, the northwest corner is in the Allen/Munson Creek drainage basin draining to Ebey Slough; the northeast and east portion of the subarea plan area drains to Stephens Creek and Lake Stevens; the central and western part of the subarea plan includes King Creek and the Sunnyside basin draining to Ebey Slough, and the southeast portion includes Hulbert Creek, also in the Sunnyside basin.

b. Stormwater Management

Various studies have been prepared for surface water management within these basins. One project was identified in the vicinity of the subarea plan by Snohomish County SWM in the County's 2001 Lake Stevens UGA Plan. The project ID is HUL4 on Figure 6-1 of the Plan. It is described as roadway flooding due to the culvert at 83rd Avenue NE. The proposed improvement is to replace the existing 12-in diameter culvert with a 30-in diameter culvert at a cost of $23,000.

Regulatory controls for managing surface water with new development include adoption by the local jurisdiction of stringent storm water standards and critical areas regulations. To this end, the City of Marysville has adopted the latest edition of the Department of Ecology's Stormwater Management Manual for the Puget Sound Basin. The Ecology Manual sets forth requirements for water quality treatment, source control for pollution-generating sites, and stormwater detention. Proposed new construction projects are required to obtain the City's approval for stormwater management plans before any construction begins. In addition, in early 2005 the City adopted updated requirements for critical areas protection using best available science in compliance with GMA requirements.

Recommended Stormwater Design Considerations

The following are some further recommendations for the design of stormwater facilities for the subarea plan:

1) Where depth to groundwater allows, stormwater infiltration is recommended

2) Minimize use of constructed facilities by utilizing low impact development techniques through site planning and development.

3) Provide aesthetic design of visible pond facilities. Facilities along arterial streetscape roadways should utilize ground-level open pond systems, as opposed to above ground construction of detention facilities that are visible from arterials. Facilities should be either natural looking ponds and swales or underground vaults. Where there is no alternative to above ground concrete block facilities, walls must be constructed to provide and aesthetically pleasing design or the facility must provide an additional landscaping setback from roadways to screen the facility from public view.

4) Provide adequate access for maintenance of drainage easements and detention ponds

5) Provide pretreatment and source control for all applicable land uses.

c. Wetlands and Streams

The City of Marysville regulates developments that affect critical areas, including streams and wetlands. These regulations have been reviewed within the comprehensive plan and development regulations for best available science. No construction is permitted in these buffers except for low impact uses such as pedestrian trails, viewing platforms, utility lines, and certain stormwater management facilities such as grass-lined swales provided they do not have a negative effect on the stream or wetland.

VII. Public Services and Facilities

a. Schools

The Lake Stevens School District provides school services to the subarea plan area. The District owns property south of Sunnyside School Road, east of Densmore Road, and west of Highway 9. The site is used for the District's bus barn facility. The District has identified a need for an additional elementary school to serve this growing area. Elementary school sites are typically 11-15 acres.

b. Water

Snohomish County PUD #1 provides water service to this area. The City of Marysville is currently in negotiations with PUD to purchase their existing facilities.

c. Sewer

Sewer service to the Whiskey Ridge area will require sewer improvements as identified in the Whiskey Ridge Sewer Plan.

VIII. Development Strategies

This plan includes a more specific subarea plan for the Whiskey Ridge subarea plan area that shall be the basis for review of development proposals. It includes a conceptual road plan, and open space and trail network as shown in Figure 4-. Street standards, including streetscape and improvement standards are herein incorporated. [1] All of the Key Concepts identified in the land use discussion of the subarea plan shall

[1]

be enforced as regulatory controls on the development of land within the subarea plan. In the event of conflict with the City's development regulations, the subarea plan ordinance shall control.

In addition to the above development controls and requirements, the plan recommends the use of zones with a broader range of base density. This will allow for a mix of lot sizes, dependent on use of MMC 19.26, Residential Density Incentives.

The following density and dimensional controls shall apply:

Whiskey Ridge Subarea Plan zones. This chart supplements the existing zoning regulations in Chapter 19.12.030 Marysville Municipal Code)

(For implementing zones of Single Family High (R 6.5) and Multiple Family, Medium please refer to MMC 19.12.030.)

(1) Densities and Dimensions.

	Single Family High, R4-8 (24)	Multi-Family Low, R6-18 (15, 24)	Mixed Use MU (16, 24)	CB
Density: Dwelling unit/acre (6)	4.5 du/ac	6 du/ac (detached single family) 10 du/ac (attached multi family)	12 du/ac	--
Maximum density: Dwelling unit/acre (1)	8	18 du/ac	18 du/ac	
Minimum street setback (3) (18)	20 ft (8)	20 ft (23)	20 ft (23)	None (19, 23)
Minimum side yard setback (3)	5 ft (10)	10 ft (10)	None (20)	25 ft. (18)
Minimum rear yard setback (3)	20 ft	25 ft	None (20)	25 ft. (18)
Base height	30 ft	35 ft (4)	45 ft.	55 ft.
Maximum building coverage: Percentage (5)	40%	40%	–	–

Referenced standards can be subsequently amended by the City utilizing the Engineering Design and Development Standards procedure for updates.

Maximum impervious surface: Percentage (5)	50%	70%	85%,75% (22)	85%
Minimum lot area	5,000 sq. ft	–	None	None
Minimum lot area for duplexes (2)	7,200 sq. ft	–	–	–
Minimum lot width (3)	40 ft	70 ft	None	None
Minimum lot frontage on cul-de-sac, sharp curve, or panhandle (16)	20 ft	–	–	–
WCF height (17)	60 ft	60 ft	120 ft	120 ft

(2) Development Conditions.

1. a. The maximum density for Whiskey Ridge subarea plan zones may be achieved only through the application of residential density incentive provisions outlined in Chapter 19.26 MMC.

2. The minimum lot sizes for duplexes apply to lots or parcels which existed on or before the effective date of the ordinance codified in this chapter. All new duplex lots created through the subdivision or short subdivision process shall be a minimum of 7,200 square feet in size, must include a "duplex disclosure," and comply with the density requirements of the comprehensive plan (eight units per acre for the Single Family zone).

3. These standards may be modified under the provisions for zero lot line and townhome developments.

4. a. Height limits may be increased when portions of the structure which exceed the base height limit provide one additional foot of street and interior setback beyond the required setback for each foot above the base height limit; provided, that the maximum height may not exceed 60 feet.

b. Multiple-family developments, located outside of Planning Area 1, abutting or adjacent to areas zoned as single-family, or areas identified in the comprehensive plan as single-family, may have no more floors than the adjacent single-family dwellings, when single-family is the predominant adjacent land use.

5. Applies to each individual lot. Building coverage and impervious surface area standards for:

a. Regional uses shall be established at the time of permit review; or

b. Nonresidential uses in residential zones shall comply with MMC 19.12.200.

6. a. The densities listed for the single-family zones are net densities.

b. Mobile home parks shall be allowed a maximum density of eight dwelling units per acre, unless located in the SF, R-4.5 or R-6.5 zones, in which case they are limited to the density of the underlying zone.

7. The standards of the R-4.5 zone shall apply if a lot is less than 15,000 square feet in area.

8. On a case-by-case basis, the street setback may be reduced to 10 feet; provided, that at least 20 linear feet of driveway is provided between any garage, carport, or other fenced parking area and the street property line, or the lot takes access from an alley. The linear distance shall be measured in a straight line from the nearest point of the garage, carport or fenced area to the access point at the street property line. In the case of platted lots, no more than two consecutive lots may be reduced to 10 feet.

9. Residences shall have a setback of at least 50 feet from any property line if adjoining an agricultural zone either within or outside the city limits.

10. For townhomes or apartment developments, the setback shall be the greater of:

a. 20 feet along any property line abutting R-4.5 through R-8, and RU zones; or

b. The average setback of the R-4.5 through R-8 zoned single-family detached dwelling units from the common property line separating said dwelling units from the adjacent townhome or apartment development, provided the required setback applied to said development shall not exceed 60 feet. The setback shall be measured from said property line to the closest point of each single-family detached dwelling unit, excluding projections allowed per MMC 19.12.160 and accessory structures existing at the time the townhome or apartment development receives approval by the city.

11. On any lot over one acre in area, an additional five percent may be used for buildings related to agricultural or forestry practices.

12. The maximum building coverage shall be 10 percent where the lot is between 1.0 and 1.25 acres in area. The maximum shall be 15 percent where the lot is less than one acre in area.

13. The impervious surface area shall be:

a. Twenty percent when the lot is between 1.0 and 1.25 acres; and

b. Thirty-five percent when the lot is less than one acre in area.

14. Outside Planning Area 1, in the single-family high density zone, the small lot zone will be allowed through the PRD process with the minimum lot size being 5,000 square feet.

15. Single-family lots and units within the Whiskey Ridge MFL and R-12-28 zones shall utilize the dimensional requirements of the R-8 zone, except the base density.

16. Provided that the front yard setback shall be established as the point at which the lot meets the minimum width requirements. On a case-by-case basis, the street setback may be reduced to the minimum of 20 feet; provided, that the portion of the structure closest to the street is part of the "living area," to avoid having the garage become the predominant feature on the lot.

17. Heights may be increased to 160 feet on nonresidential land uses in R zones, including publicly owned facilities, if co-location is provided.

18. A 25-foot setback only required on property lines adjoining residentially designated property, otherwise no specific interior setback requirement.

19. Subject to sight distance review at driveways and street intersections.

20. A 20-foot setback is required for multifamily structures. A 20-foot setback is only required for commercial structures on property lines adjoining residentially designated property, otherwise no specific interior setback requirement.

21. A 10-foot setback is only required for multiple-family structures on property lines adjoining single-family residentially designated property, otherwise the minimum setback is five feet.

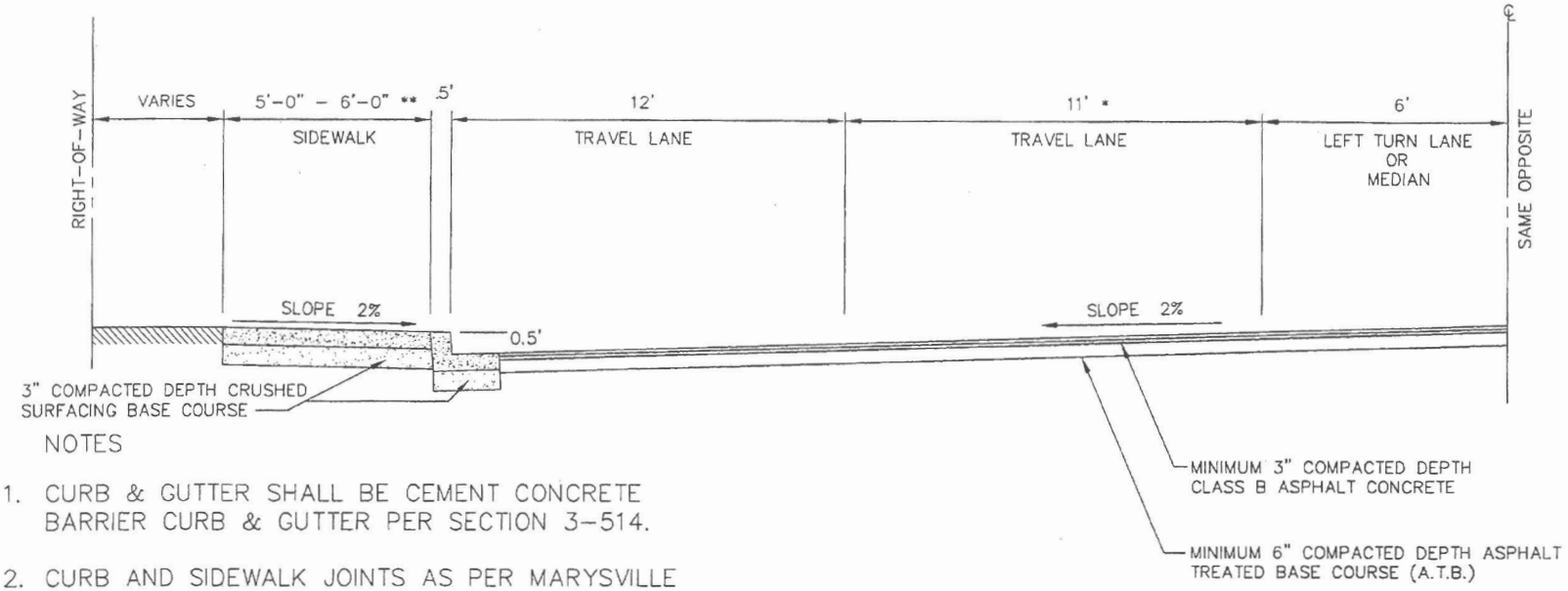
22. The 85 percent impervious surface percentage applies to commercial developments, and the 75 percent rate applies to multiple-family developments.

23. Required landscaping setbacks for developments on the north side of Soper Hill Road are 25 feet from edge of sidewalk.

24. Projects that are 15 acres or more in size with split zoning (two or more distinct land use zones) may propose a master site plan to density average or adjust the zone boundaries using topography, access, critical areas or other site characteristics to more effectively transition between land uses.

EXHIBIT A

Engineering Design and Development Standards for Area Roads and Multi-Use Trails



NOTES

1. CURB & GUTTER SHALL BE CEMENT CONCRETE BARRIER CURB & GUTTER PER SECTION 3-514.
2. CURB AND SIDEWALK JOINTS AS PER MARYSVILLE SECTION 3-515.
3. REFER TO SECTION 3-303 FOR DRIVEWAY DETAILS.
4. CURB RAMP DETAILS AS PER SECTION 3-516.
5. THIS DRAWING ILLUSTRATES A MINIMUM ASPHALT CONCRETE ROAD SECTION. ACTUAL SURFACING DESIGN FOR ARTERIALS AND COMMERCIAL ACCESS STREETS SHALL BE BASED ON SOILS AND TRAFFIC ANALYSIS.
6. ARTERIAL STREETS DESIGNATED AS A STREETSCAPE ROUTE SHALL PROVIDE PLANTER STRIP. SEE APPENDIX B.
7. A MINIMUM SEVEN FOOT SIDEWALK SHALL BE USED IN THE DOWNTOWN CENTRAL BUSINESS DISTRICT.
8. THE RIGHT-OF-WAY WIDTH SHALL BE WIDENED AN ADDITIONAL 5 FT MIN FOR PLACEMENT OF FIRE HYDRANTS AND MAILBOX CLUSTERS.
9. DRAINAGE REQUIRED BEHIND WALK IN CUT AREAS.

* SEE APPENDIX B FOR NUMBER OF LANES AND RIGHT-OF-WAY WIDTHS

** 6'-0" ADJACENT TO CURB, 5'-0" ADJACENT TO PLANTER STRIP

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

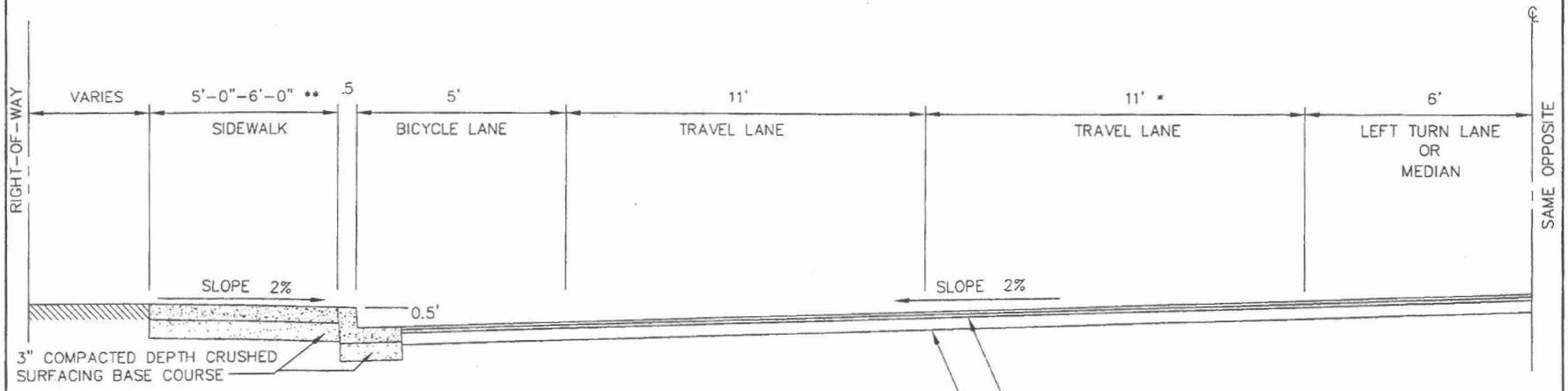
CITY OF Marysville WASHINGTON

PRINCIPAL & MINOR ARTERIAL

COMBINED CURB, GUTTER & SIDEWALK

STANDARD PLAN 3-201-001

LAST REVISED 10/04/06



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* SEE APPENDIX B FOR NUMBER OF LANES AND RIGHT-OF-WAY WIDTHS

** 6'-0" ADJACENT TO CURB, 5'-0" ADJACENT TO PLANTER STRIP

APPROVED BY

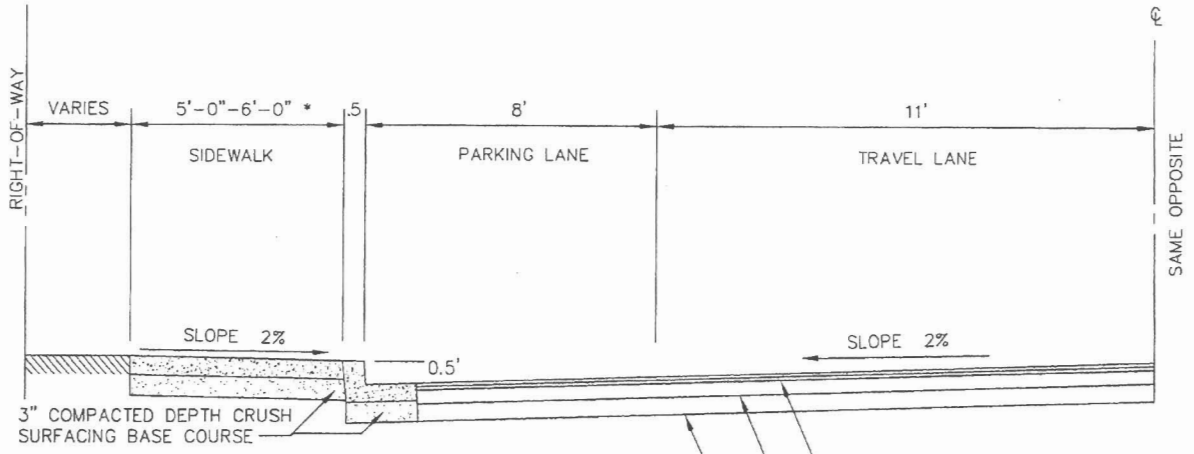
MARYSVILLE CITY ENGINEER DATE

CITY OF Marysville WASHINGTON

PRINCIPAL & MINOR ARTERIAL
BICYCLE CONFIGURATION

STANDARD PLAN 3-201-002

LAST REVISED 10/03/06



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6. A 12' TRAVEL LANE AND ADDITIONAL RIGHT OF WAY MAY BE REQUIRED AS DETERMINED BY THE CITY ENGINEER
7. A COMMERCIAL AND INDUSTRIAL ACCESS APPLICATION MAY REQUIRE A SEVEN FOOT SIDEWALK SECTION.
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9. DRAINAGE REQUIRED BEHIND WALK IN CUT AREAS.

* 6'-0" ADJACENT CURB, 5'-0" ADJACENT TO PLANTER STRIP

APPROVED BY

MARYSVILLE CITY ENGINEER DATE

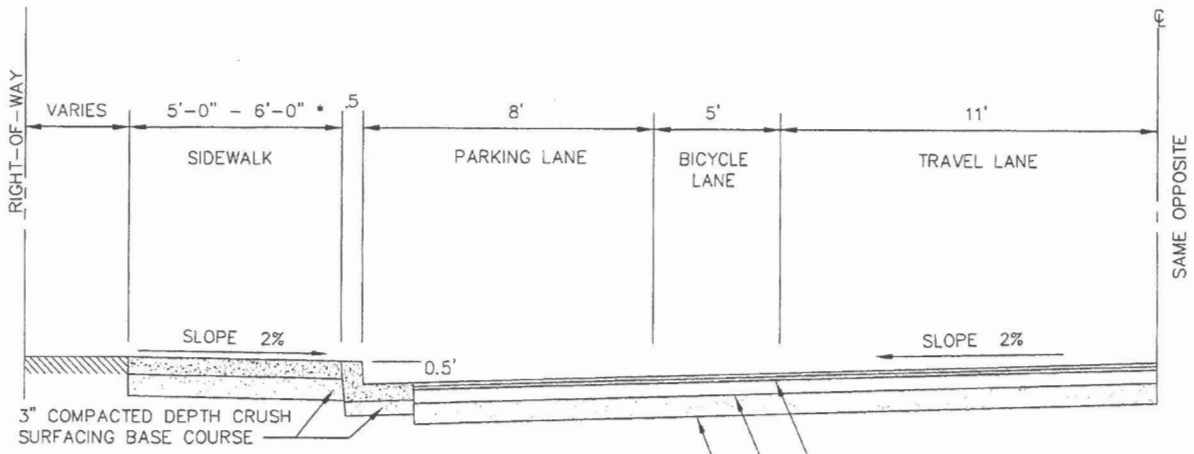
CITY OF Marysville WASHINGTON

COLLECTOR ARTERIAL/ COMMERCIAL ACCESS STREET

COMBINED CURB, GUTTER & SIDEWALK

STANDARD PLAN 3-201-003

LAST REVISED 02/13/07



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APPROVED BY

MARYSVILLE CITY ENGINEER DATE

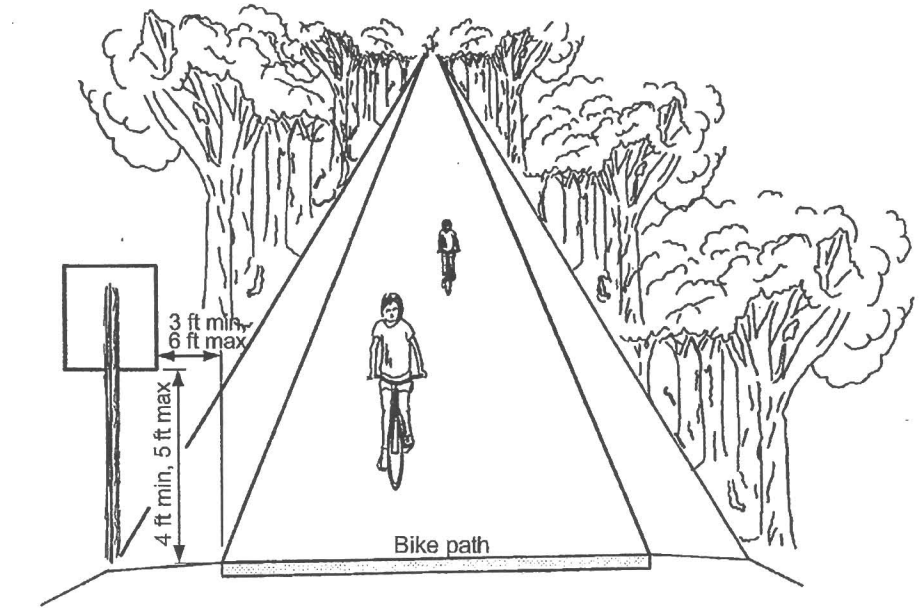
CITY OF Marysville WASHINGTON

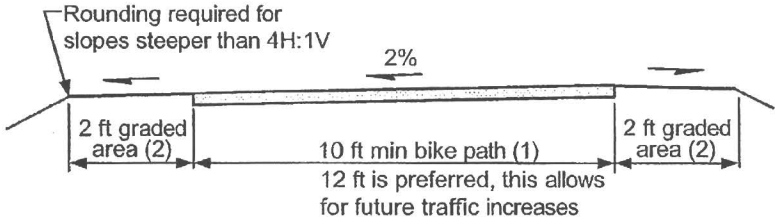
COLLECTOR ARTERIAL/ COMMERCIAL ACCESS STREET

BICYCLE CONFIGURATION

STANDARD PLAN 3-201-004

LAST REVISED 10/18/06





NOTE:

(1) Use 12 to 14 ft when maintenance vehicles use a shared use path as an access road for utilities. Use of 12 to 14 ft paths is recommended when there will be substantial use by bicycles (≥60 bicycles per day), or joggers, skaters, and pedestrians (20 per hour). Contact region's Bicycle Coordinator for bicycle use information. See 1020.05(2)(a) for more discussion on bicycle path widths.

(2) Where the paved width is wider than the minimum required, reduce the graded area accordingly.

Two-Way Shared Use Path on Separate Right of Way
Figure 1020-13

Exhibit B

Transportation Memorandums from Perteet Inc.

1. East Sunnyside/Whiskey Ridge Transportation Needs Evaluation
2. Evaluation of the Continuity of 67th Avenue to 71st Avenue Corridor
3. Traffic Impact Fee Mitigation 2007 Update

East Sunnyside/Whiskey Ridge
Transportation Needs Evaluation

1. Introduction

The East Sunnyside / Whiskey Ridge neighborhood is located in the southeast corner of the City of Marysville, bounded by Soper Hill Road on the south, Highway 9 on the east, and 64th Street (SR 528) on the north. The west boundary of the neighborhood is approximately 75th Avenue north of 52nd Street, and 67th Avenue south of 52nd Street.

A significant part of the neighborhood has been under the jurisdiction of Snohomish County, but within the City's Urban Growth Area (UGA) boundary. In this respect, the development of some the transportation infrastructure has been to County standards.

This Transportation Needs Evaluation considers the long-term potential development of the neighborhood (developable land capacity), adjacent neighborhoods inside the City, County, and other jurisdictions. The Transportation Needs Evaluation also considers the existing and future regional roads, transit services, and non-motorized facilities.

2. Land Use Assumptions

The East Sunnyside / Whiskey Ridge neighborhood comprises about 1,822 acres of which there are about 1,585 (87%) gross developable acres and about 1,372 (75%) net developable acres. The neighborhood has several steep hillsides, ravines, creeks, and woods. It is expected that the urban development will be predominantly single family residential (including duplexes), with some multi-family units, a limited amount of neighborhood commercial, and a commercial and mixed use area along Highway 9 from the intersection of SR 92 to Soper Hill Road.

The developable land capacity analysis indicates that the number of dwelling units in the neighborhood could increase from about 910 units today to about 4,275 units in the future, and that employment in the neighborhood could increase from about 34 employees to 733 employees. Development demands are high and full build-out could occur by 2025 or earlier

3. Traffic Forecasting Methodology

The travel forecasting for the East Sunnyside / Whiskey Ridge neighborhood employed the City of Marysville's current T-Model/2 program, which was developed in 2004 to predict traffic volumes for the year 2025. This model covers the City of Marysville and its UGA areas, and uses external traffic inputs from the regional traffic model developed by the Puget Sound Regional Commission (PSRC). Because the East Sunnyside / Whiskey Ridge neighborhood is at the extreme southeast edge of the City's T-Model/2 coverage area, the external inputs create a significant impact on the traffic estimates.

The land use assumptions in the Traffic Analysis Zones (TAZ's) of the City's T-Model that relate to the East Sunnyside / Whiskey Ridge neighborhood were reviewed for compliance with the land use assumptions proposed in the neighborhood plan. The model assumptions were found to be relatively consistent with the neighborhood plan, with two

exceptions. Minor adjustments were made in the assumptions of single-family residences and multi-family residences, and about 100,000 square feet of quasi-institutional space assumed in the T-Model/2 program were transferred to a retail category to more reasonably represent the proposed commercial / mixed use area near Highway 9.

The road network assumptions of the current T-Model/2 program were also revised to include a more direct connection to Highway 9 at the SR-92 intersection. In this case, an arterial road would connect from this key intersection to the 40th Street right-of-way near 83rd Avenue and continue west to Sunnyside Boulevard.

The T-Model/2 program was revised using these land-use and road network adjustments and run to provide new traffic forecasts for the year 2025.

4. Traffic Demands and Arterial Road Facilities

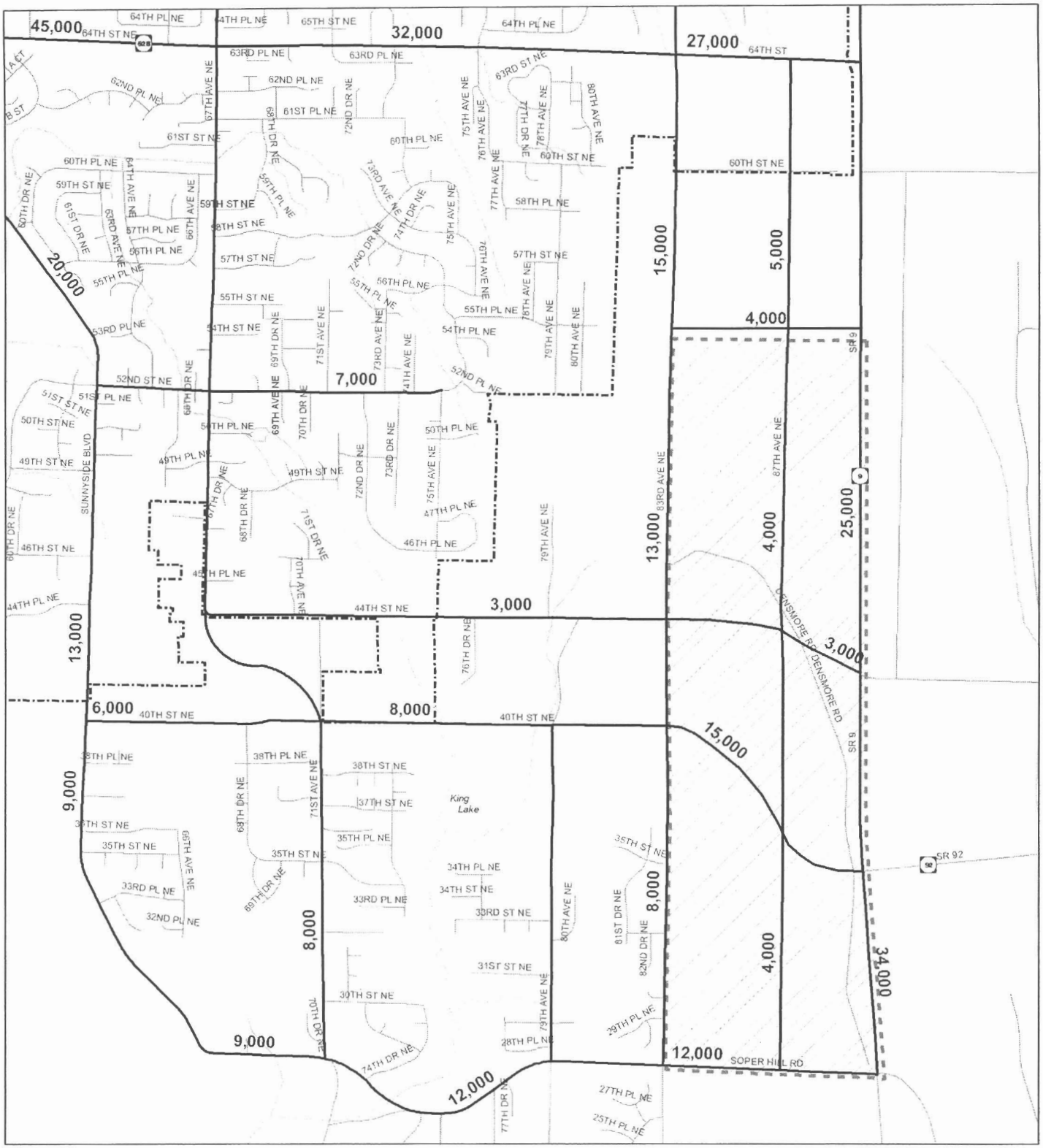
Results from the traffic model indicate that there will be very heavy traffic demands in the east-west and in the north-south directions, as shown on ***Figure 1*** and summarized on ***Table 1***.

The highest volumes in the east-west direction will be on 64th Street (SR-528), where traffic demands at the west end of the study area could reach 45,000 vehicles per day. The proposed extension of SR-92 west and north to connect to 40th Street could carry up to 15,000 vehicles per day at the east end at SR-9. Soper Hill Road could carry up to 12,000 vehicles per day at the east end.

The highest volumes in the north-south direction will be on SR-9, where traffic demands at the south end of the study area could reach 34,000 vehicles per day. Sunnyside Boulevard could carry up to 20,000 vehicles per day at the north end, and 67th and 83rd Avenues could carry up to 15,000 vehicles per day each at the north end of the study area.

Table 1
Estimated 2025 Daily Traffic Volumes

	Minimum	*Maximum*
East-West Streets		
64th Street (SR 528)	27,000	45,000
52nd / 54th Street	4,000	7,000
44th Street	3,000	3,000
40th Street to SR-92	6,000	15,000
Soper Hill Road	9,000	12,000
North-South Streets		
Sunnyside Boulevard	9,000	20,000
67th / 71st Avenues	8,000	15,000
83rd Avenue	8,000	15,000
87th Avenue	4,000	5,000
SR-9	25,000	34,000



City of Marysville

Whiskey Ridge Master Plan

2025 Daily Traffic Volume

December 8, 2006

Master Plan Area
Marysville city limits
East Sunnyside Neighborhood

0 500 1,000 Feet

Figure 1

Based on these analyses, the following road improvements are recommended, as shown on ***Figure 2*** and summarized in ***Table 2.***

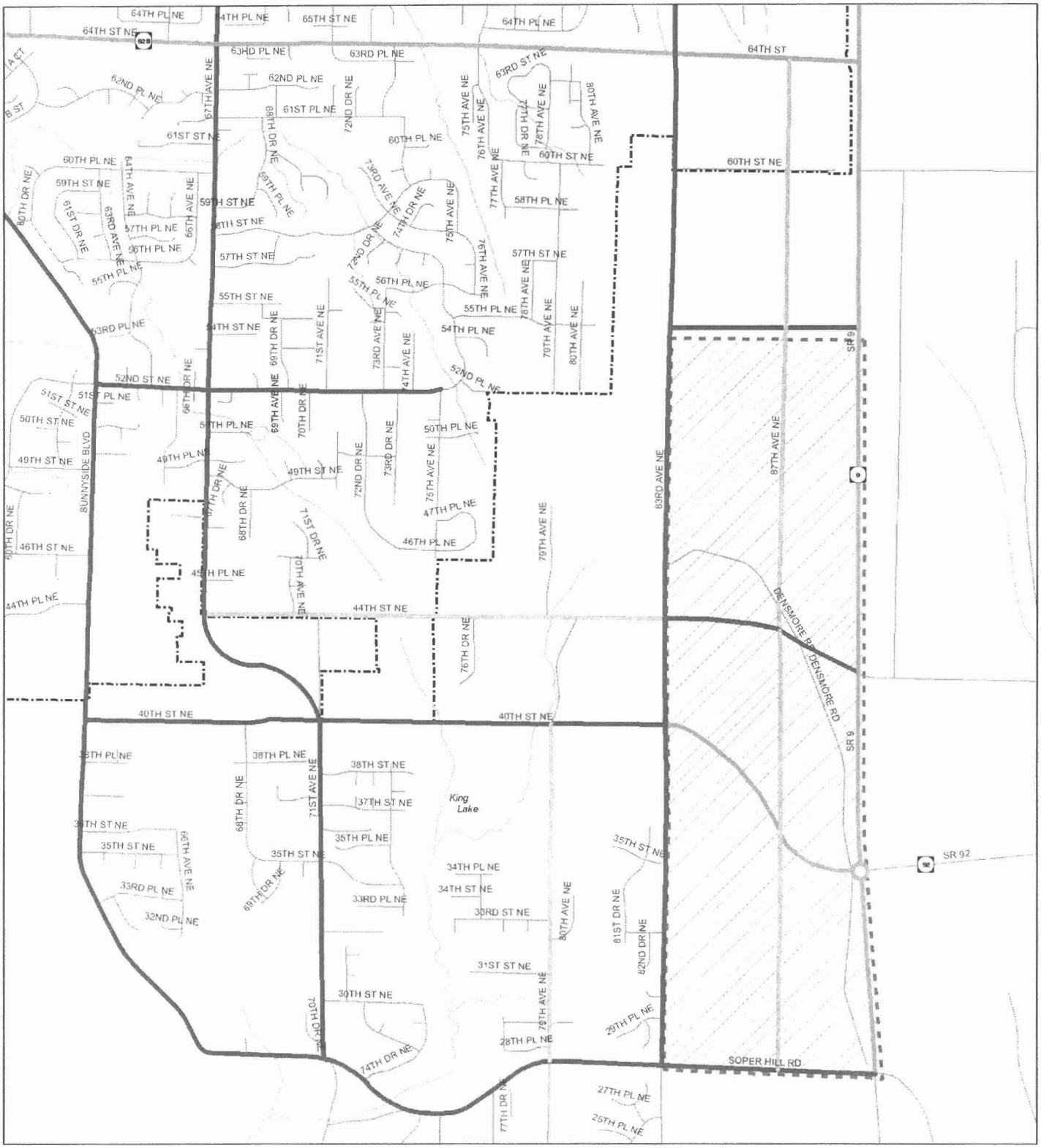
- ***Sunnyside Boulevard / Soper Hill Road*** should be classified as a Minor Arterial and will require at least a three-lane section. Depending on the type of access control (traffic control signals or roundabouts), a center landscaped boulevard may be appropriate. Bike lanes or a multi-purpose road-side path would be appropriate.
- ***67th / 71st Avenues*** should be a connected route, if possible, from 64th Street through to Soper Hill Road and classified as a Minor Arterial with a three-lane section with bike lanes or a road-side path.
- ***79th Avenue*** should be classified as a Collector Arterial north of 40th Street and designed for two lanes to Soper Hill Road
- ***83rd Avenue*** should be classified as a Minor Arterial and designed for three lanes from 64th Street (SR528) to Soper Hill Road. This alignment is considered preferable to 87th Avenue for the primary north-south arterial because it is more central to the neighborhood.
- ***87th Avenue*** should be classified as a Collector Arterial and designed for two lanes with bike lanes. It is not recommended that 87th Avenue be a through street from 64th Avenue to Soper Hill, because of its proximity to SR-9. Intersections at major cross-streets could eventually back traffic up into intersections at SR-9 if there is significant north-south through-traffic on 87th Avenue. However, 87th Avenue should be designed for primary commercial access where it crosses other arterial streets such as 35th Street with left-turns where appropriate.
- ***40th Street*** should be connected from Sunnyside Boulevard to the intersection of SR-92 at SR-9. It should be classified as a Principal Arterial east of 83rd Avenue with a five-lane section to accommodate the planned adjacent commercial and higher density housing. West of 83rd Avenue, it should be classified as a Minor Arterial and designed with a three-lane section.
- ***44th Street*** should be extended to the Sunnyside School Road / Densmore Road intersection and then follow the existing alignment of Sunnyside School Road to the intersection at SR-9. It could continue east of SR-9 to provide access to communities in the unincorporated County. East of 83rd Avenue, 44th Street should be designated as a Minor Arterial with a three-lane section and bike lanes. West of 83rd Avenue, 44th Street should be designated as a Collector Arterial with two travel lanes and bike lanes.
- ***Sunnyside School Road*** and ***Densmore Road*** should both be disconnected at 44th Street and at 35th Street (SR-92 extension) due to their proximity to key SR-9 intersections. The rights-of-way could be used for local access streets and/or a multi-use trail.
- ***54th Street*** is recommended as a replacement access route to SR-9 for 60th Street, which is considered too close to the major intersection of 64th Street (SR-528) at SR-9. The 54th Street alignment would be approximately a midpoint between the major 64th Street intersection and the recommended 44th Street (Sunnyside School Road) intersection on SR-9. This connection to SR-9 should be classified as a

Minor Arterial with a three-lane section and bike lanes. It could also be continued east of SR-9 provide access to communities in the unincorporated County.

- ***Neighborhood Collectors*** – other streets, such as 60th Street and 79th Avenue north of 52nd Street, could be designated as neighborhood collectors with a two-lane section. Extension of 54th Street east of 83rd Avenue across the PSE right-of-way could also be considered as a neighborhood collector to provide better access the neighborhood west of 83rd Avenue.

Table 2
Recommended Arterial Road System

	From	To	Lanes
Principal Arterials			
SR 528 (64th St.)	4th Street	SR-9	5
35th / 40th Street (SR92 extension)	83rd Street	SR-9	5
Minor Arterials			
Sunnyside Boulevard	3rd Street	Soper Hill Road	3
Soper Hill Road	Sunnyside	SR-9	3
83rd Avenue	64th Street	Soper Hill Road	3
67th Avenue	64th Street	44th Street	3
67th / 71st Avenues	44th Street	Soper Hill Road	3
52nd Street	Sunnyside	75th Avenue	3
54th Street	83rd Avenue	SR-9	3
44th Street	83rd Avenue	SR-9	3
40th Street	Sunnyside	83rd Avenue	3
Collector Arterials			
44th Street	67th Avenue	83rd Avenue	2
79th Avenue	40th Street	Soper Hill Road	2
87th Avenue	64th Street	Soper Hill Road	2



City of Marysville

Whiskey Ridge Master Plan

Arterial Functional Classifications

December 8, 2006

ARTERIAL
- PRINCIPAL
- MINOR
- COLLECTOR

Master Plan Area
Marysville city limits
East Sunnyside Neighborhood

0 500 1,000 Feet

Figure 2

5. Transit Facilities

Currently, Community Transit Route 221 is the primary transit service in the neighborhood. It operates on SR 9 and 64th Street (SR-528) connecting Lake Stevens to Quil Ceda Village via downtown Marysville. Service is provided all day long at a frequency of about one bus per hour. Two commuter routes (CT-421 and CT-821) pass by the corner of SR 528 and 67th Street. Service is limited to the morning and afternoon commuter hours.

Transit service areas are usually defined as the properties within 1,500 feet of a bus route where stops are made. There are currently bus stops on 64th Street, which limits the existing coverage to East Sunnyside residents within 1,500 feet of 64th Street.

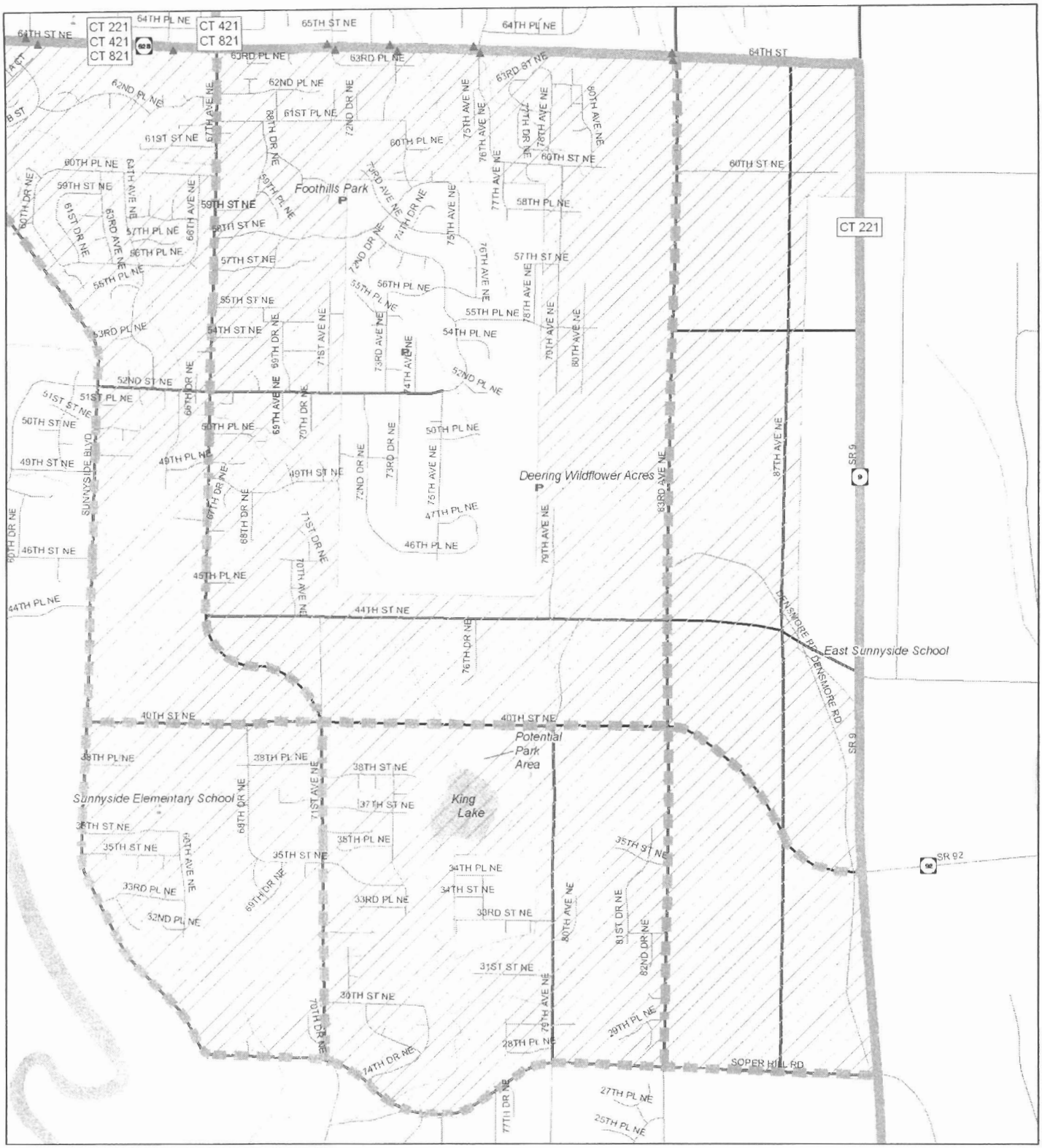
As the East Sunnyside / Whiskey Ridge Community grows to its capacity of nearly 12,000 residents, it will require additional public transit services. The future transit routes should be designed to provide service to within 1,500 feet of as many residents as possible. It is likely, for example, that CT-221 could be rerouted from SR-9 to a minor arterial street within the Whiskey Ridge community, such as 83rd Avenue, to allow more frequent stops and improved coverage.

It is prudent therefore, for the City to design streets to support future bus routes to serve future residents and employees. Street design considerations should include providing additional right-of-way for bus stop locations, bus shelter (pad) locations, and improved sidewalk or trail access. This infrastructure should be considered a mitigation expense in the same manner as road facilities and non-motorized facilities.

It is recommended that design of the following Principal and Minor Arterial streets should include provisions for future bus routes as shown on ***Figure 3***:

- Sunnyside Boulevard
- Soper Hill Road
- 40th Street to the SR-92 intersection at SR-9
- 83rd Avenue
- 67th / 71st Avenues

Assuming that bus routes will continue to operate on 64th Street, this will provide very good coverage of the East Sunnyside / Whiskey Ridge Community as shown on ***Figure 3.*** As the neighborhood develops, the City should work with Community Transit to provide new bus routes on the designated arterial streets.



City of Marysville

Whiskey Ridge Master Plan

Transit Service

December 8, 2006

Marysville city limits
Schools
Parks
Existing Community Transit Routes
Existing Community Transit Stops
Potential Transit Streets
Potential Transit Service Coverage Area

1,000 500 0 Feet

Figure 3

6. Non-motorized Facilities

Multi-purpose trails, bike lanes, sidewalks and other non-motorized facilities should be provided for recreational purposes and to encourage commuters to use modes other than automobiles to travel to work places and schools. In this regard, it is important to locate these facilities near parks, schools, higher density residential, and bus routes.

It is also important to maintain a grid system of non-motorized facilities so that pedestrians and cyclists are not discouraged by long winding routes. Sidewalks should be provided on all arterial roads unless a road-side multi-purpose path is provided.

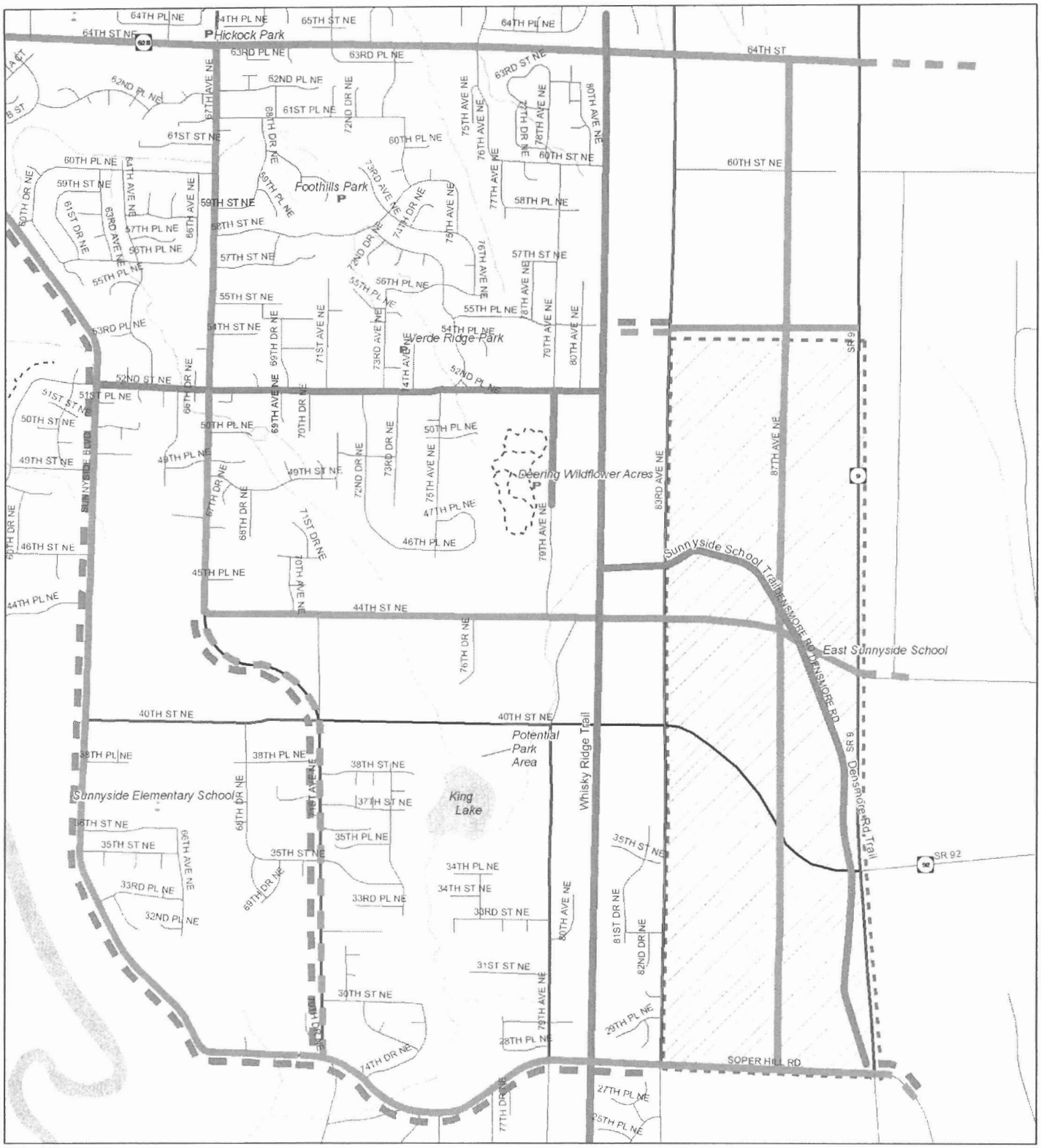
A network of trails and bike lanes is shown on ***Figure 4.***

Multi-purpose Paths and Trails are recommended in the following corridors:

- ***Densmore / Sunnyside School Road*** right-of-way should be converted to a north-south trail or a local access road with a road-side path.
- ***A PSE Corridor*** runs parallel and west of 79th Avenue from Soper Hill Road to 64th Street and beyond, which would provide an excellent right-of-way for a trail. Proposed as the Whiskey Ridge Trail, it would provide excellent north-south connections to homes, parks, shops and bus routes
- ***52nd Street*** would provide an excellent east-west opportunity for a road-side path to connect Sunnyside Boulevard to Deering Wildflower Acres and the potential Whiskey Ridge (PSE) Trail.

Bike Lanes *(or multi-use road-side paths)* are recommended in the following corridors:

- ***64th Street (SR-528)*** is a connector route for commuter-type bike lanes.
- ***Sunnyside Boulevard / Soper Hill Road*** corridor should include bike lanes and sidewalks or a multi-use road-side path.
- ***67th / 71st Avenues*** from 64th Street to Sunnyside/Soper Hill Road should include bike lanes or a multi-use road-side path.
- ***44th Street*** could be a preferably route to 40th Street for bike lanes from 67th Avenue to SR-9 and the Densmore/School Road Trail. A connection west of 67th Avenue to Sunnyside Boulevard would be desirable.
- ***54th Street/55th Place*** could use bike lanes or a trail to provide continuity of the 52nd Street path east to the Whiskey Ridge (PSE) Trail and SR-9.
- ***87th Avenue*** is a preferable to 83rd Avenue as a north-south route for bike lanes or a multi-use road-side path due to the proximity of 83rd Avenue to the proposed Whiskey Ridge Trail and since 87th Avenue would also provide continuity of the Densmore / Sunnyside School Trail.



City of Marysville

Whiskey Ridge Master Plan

Parks, Routes, and Trails

December 8, 2006

Master Plan Area
Marysville city limits
East Sunnyside Neighborhood
Schools
P Parks
Multi-use Path/Trail
Bicycle Lanes

1,000 500 0 Feet

Figure 4

City of Marysville
Sunnyside Boulevard Corridor Traffic Analysis
Evaluation of the Continuity of the 67th Avenue to 71st Avenue Corridor

Introduction

In evaluating the ultimate design of Sunnyside Boulevard, the potential traffic volumes on Sunnyside Boulevard and intersecting streets are a significant element of the design of lane and intersection configurations. The design of parallel routes will greatly influence the traffic demands on Sunnyside Boulevard.

In the Transportation Element of the Whiskey Ridge Subarea Plan, a network of Minor and Collector Arterial streets was recommended to distribute future traffic loads in a fair and reasonable manner. The following north-south streets were recommended to be designed as three-lane Minor Arterial Streets to distribute the traffic loads:

- Sunnyside Boulevard south of 52nd Street,
- 67th/71st Avenue, south of SR-528 (164th Street), and
- 83rd Avenue south of SR-528

Key elements of the 67th/71st Avenue corridor were improving the intersection at Soper Hill Road to a more conventional design (eliminating the off-set) and constructing a direct connection between 67th Avenue and 71st Avenue, (eliminating the dog-leg through 44th Street).

This evaluation documents the impacts of not providing the proposed improvements on the 67th/71st Avenue corridor.

Whiskey Ridge Subarea Plan 2025 Traffic Volumes

In the Transportation Element of the Whiskey Ridge Subarea Plan, the daily traffic volumes for the arterial street system were estimated for the year 2025, with the assumption that full build-out of the Whiskey Ridge development would be complete.

It was assumed that a direct connection between 67th Avenue and 71st Avenue would be completed, eliminating the existing dog-leg through 44th Avenue. It was further assumed that 40th Avenue would be improved to a three-lane Minor Arterial from Sunnyside Boulevard to 83rd Avenue, with a further extension as a five-lane Principal Arterial to the intersection of SR-92 at SR-9.

The 2025 traffic volumes for Sunnyside Boulevard, 67th/71st Avenues and 40th Street, as estimated in the Transportation Element of the Whiskey Ridge Subarea Plan, are shown on the attached figure, ***2025 Daily Traffic Volumes, 67th/71st Avenue Corridor, Comparative Evaluation*** as the ***"Recommended Alignment".***

These traffic estimates illustrate that there is a reasonable balance of traffic volumes on Sunnyside Boulevard (about 9,000 to 20,000 vehicles per day) and on the 67th/71st Avenue Corridor (about 8,000 to 15,000 vehicles per day).

At these levels, it is likely that both routes will operate at a safe level of service with only a three-lane section. The section of Sunnyside Boulevard north of 52nd Street (20,000 vehicles per day) may be at the critical point where five lanes would be required. The detailed analysis of intersection traffic movements and alternative traffic control devices, (such as four-way stops, traffic signals, or roundabouts) is currently under study to determine the appropriate number of lanes.

General Impacts of 67th/71st Avenue Corridor Continuity

For this comparative analysis, the traffic model was adjusted to replicate the effects of a dog-leg in the 67th/71st Avenue corridor at 44th Avenue. The dog-leg will add severe turns at two additional intersections for through traffic which will tend to discourage traffic from using this route.

This type of traffic impedance usually will shift traffic to other routes. The model evaluated shifts of traffic from 67th/71st Avenue to the parallel routes of Sunnyside Boulevard, 83rd Street, and SR-9. The model indicates that, in general, most of the traffic will likely shift to Sunnyside Boulevard because of its ultimate destination within the Whiskey Ridge community.

The 2025 traffic volumes for Sunnyside Boulevard, 67th/71st Avenues and 40th Street, assuming the dog-leg on 67th Avenue at 44th Street are shown on the bottom half of the attached figure, ***2025 Daily Traffic Volumes, 67th/71st Avenue Corridor, Comparative Evaluation*** as the ***"44th Street Dog-Leg".***

These traffic estimates illustrate that the balance of traffic volumes has become a little more skewed, with Sunnyside Boulevard carrying about 2,000 vehicles per day more and the 67th/71st Avenue Corridor carrying about 2,000 vehicles per day less, north of 40th Street. Most of the diverted traffic is projected to return to the 71st Avenue corridor from Sunnyside Boulevard via 40th Avenue.

The increase of traffic on Sunnyside Boulevard due to this shift may increase the potential need to design Sunnyside as a five-lane section in the segments north of 52nd Avenue, rather than as a three-lane section.

Variations in the City Traffic Model

In evaluating the impacts of the alignment change in the 67th/71st Avenue corridor, it was also observed that the City of Marysville's T-Model/2 traffic model may be underestimating the total traffic demands in the Sunnyside Boulevard and 67th/71st Avenue corridors.

The City of Marysville's current T-Model/2 traffic model was developed in 1999. The model is dependent on forecasted data at "external node" points derived from other regional models, such as the Puget Sound Regional Council (PSRC) Emme/2 model. Such forecasted data for "external nodes" is not usually changed unless a major update of the City's T-Model/2 is completed. Thus, the data can become outdated.

In evaluating the impacts of this corridor, the data at the "external node" of Sunnyside Boulevard south of Soper Hill Road was reviewed. In 1999, the traffic count data indicated that about 187 PM peak hour trips used Sunnyside Boulevard south of Soper Hill Road. The City's T-Model/2 predicted that the traffic at this "external node" would increase more than threefold to about 572 PM peak hour trips by the Year 2025 horizon.

Traffic counts taken in 2006 and 2007 at this "external node" indicate that there are already about 490 to 500 PM peak hour trips, or about 80% of the forecasted growth. If the growth in the first 7 years (1999 to 2006) of the 26 year (1999 to 2025) forecast has already reached this level, then it may be that the long-term 2025 forecasts for this "external node" are underestimated.

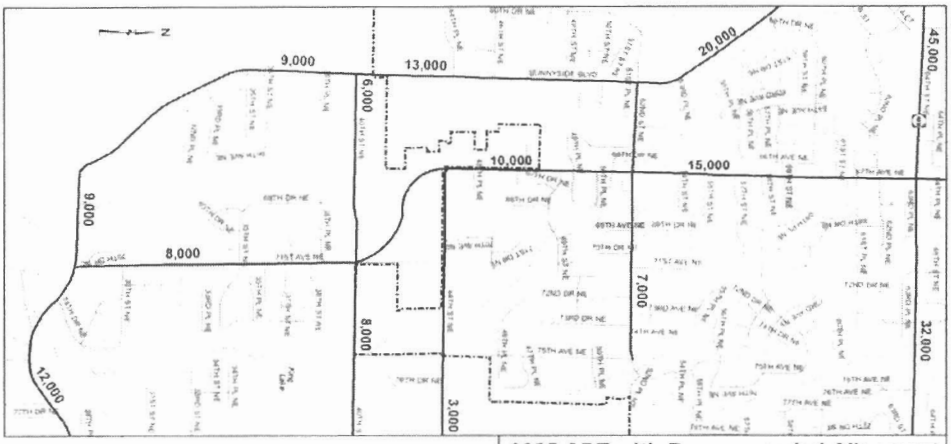
If the traffic forecasts for this "external node" are underestimated, then the traffic volumes on both Sunnyside Boulevard and the 67th/71st Avenue corridors may also be underestimated. Verification of this possibility could only be made by updating the City's T-Model/2.

Summary and Conclusions

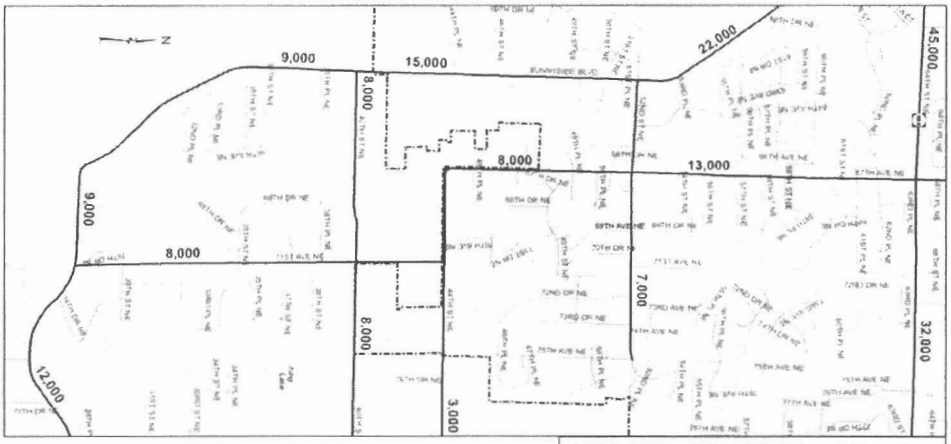
The above analyses indicate that:

- Additional traffic will shift to Sunnyside Boulevard if the continuity of the 67th/71st Avenue corridor is not maintained.
- The traffic volumes on both the Sunnyside Boulevard and the 67th/71st Avenue corridors may be underestimated.
- Additional traffic on Sunnyside Boulevard may increase the potential need for a five-lane section in the segments north of 52nd Avenue.

It is therefore recommended that an alignment be designed to connect 67th Avenue directly with 71st Avenue. This will maintain the continuity of the 67th/71st Avenue Corridor and distribute the north-south traffic loads through the Whiskey Ridge community more reasonably. It will reduce the potential that more sections of Sunnyside Boulevard would need to be widened from three lanes to five lanes.



2025 ADT with Recommended Alignment



2025 ADT with 44th Street Dog-Leg

2025 Daily Traffic Volume
67th / 71st Avenue Corridor
Comparative Evaluation

City of Marysville
Traffic Impact Mitigation Fee
2007 Update

Introduction

The Marysville City Council has directed Staff to revisit the traffic impact mitigation fee calculation periodically as needed. Because the costs of transportation projects in the region have escalated significantly in the past few years, and new road arterial projects are recommended resulting from the Whiskey Ridge/Sunnyside Master Planning effort, the City therefore engaged Perteet, Inc. to confirm the revised traffic impact fee calculation and perform a mitigation fee peer review.

2006 Mitigation Fees and Calculations

The current Traffic Mitigation Fees under Title 18B MMC (effective 1/1/06), are as follows:

Single Family (per unit)	$3,175.00
Duplex (per unit)	$2,317.75
Multi-family (per unit)	$1,968.50
Commercial (per PM PHT)	$1,300.00

These fees were calculated by estimating the sum costs of committed transportation projects plus the 6-Year TIP plus 20-Year Improvements plus Bond Debt Service.

The sum costs were then divided by the estimated number of new trips in the afternoon peak commute hour (PM PHT) over the 20-Year period to determine the **"Maximum Possible Impact Fee", which was $5,973 per PM PHT.**

The "Maximum Possible Impact Fee" was then discounted by about 78% for commercial developments and only by about 47% for the single family residential developments to reach the published Traffic Mitigation Fees, above.

2007 Maximum Possible Impact Fee Calculation

The 2007 Traffic Mitigation Fees may be calculated in the same manner. The City-wide project lists have been updated as follows.

The total updated transportation project costs are:

Committed Transportation Projects	$ 20,175,000
Recommended 6-Year Improvements	$ 39,713,000
Recommended 20-Year Improvements	$ 74,436,000
General Obligation Bond Debt Service	$ 5,880,000
Total Current Program Costs	**$140,204,000**

In addition, there are several road improvements in the Whiskey Ridge/Sunnyside neighborhood plan that will be added to the recommended 6-Year and 20-Year project

lists. Very preliminary budget estimates for these projects indicate a range of $48 million to $94 million based on the following:

Limited Projects	
40th Street – 3-lane minor Sunnyside to 83rd Avenue -	$13,000,000
40th Street– 5-lane principal 83rd to SR-9 at SR-92	$18,000,000
67th/71st – 3-lane minor arterial 52nd Street to Soper Hill	$17,000,000
Subtotal	$48,000,000
Additional Projects	
Sunnyside – 3-lane minor 52nd Street to 71st Avenue -	$19,000,000
83rd Avenue – 3-lane minor 164th to Soper Hill -	$17,000,000
44th Street – 3-lane minor 67th Avenue to SR-9 -	$10,000,000
Subtotal	$46,000,000
Total Projects	**$94,000,000**

Total Transportation Costs	$140,204,000
– Limited Whiskey Ridge Projects	$ 48,000,000
Total Transportation Costs – Limited Whiskey Ridge	**$188,204,000**

Total Transportation Costs	$140,204,000
– Total Whiskey Ridge Projects	$ 94,000,000
Total Transportation Costs – Total Whiskey Ridge	**$234,204,000**

The "Maximum Possible Impact Fee" is then calculated by dividing the total transportation project costs by the estimated number of new trips in the afternoon peak commute hour (PM PHT) over the 20-Year period.

Therefore, depending on the option assumed for the Whiskey Ridge projects, the **"Maximum Possible Impact Fee" for 2007** would be in the range of:

"Maximum Possible Impact Fee" = $188,204,000 / 12,935 new trips = $14,550
for the Limited Whiskey Ridge scenario
Or
"Maximum Possible Impact Fee" = $234,204,000 / 12,935 new trips = $18,106
for the Total Whiskey Ridge scenario

The maximum possible fee could be discounted as the approved 2006 Traffic Mitigation Fees were discounted. If the same discount rates were used, then the commercial per PM PHT rate would be between $3,201 and $3,983 (78% discount) and the single family residential rate would be between $7,712 and $9,596(47% discount), depending on the option assumed for Whiskey Ridge.

Mitigation Fee Peer Review

Comparisons with mitigation fees in other jurisdictions are useful in considering discounts to the "Maximum Possible Impact Fee".

Ten cities were selected for the peer review, eight in Snohomish county and two in King County, plus Snohomish County. Three of the cities in the peer group, Lake Stevens, Mill Creek, and Monroe use complicated formulas to calculate the costs of impacted projects and therefore could not provide any comparative value. Snohomish County uses a daily trip rate (ADT) base and is therefore not directly comparable. The Snohomish County mitigation fee rates appear to provide a higher discount to commercial development than to residential development. This may not necessarily be true, however, when the ADT trips are converted to peak hour trips.

The traffic mitigation fees of the remaining seven cities are summarized on the following table, along with the City of Marysville's 2006 Traffic fees. Three of the cities have specific fees for residential units and a per trip (PM PHT) fee for commercial or other land uses. The other four cities publish one PM PHT rate fee.

The PM PHT rate fees range from a **low of $900** per trip in Everett to a **high of $14,707** in Sammamish. The average fee of the peer group (not including the City of Marysville) is about **$4,200**. The current City of Marysville per PM PHT rate is therefore ***significantly below the peer group rate***.

Agency	Per Residential Unit			Per PM PHT
	Single-Family	Duplex	Multi-Family	
Marysville 2006	***$3,175.00***	***$2,317.75***	***$1,968.50***	***$1,300.00***
City of Arlington				$3,355.00
City of Bothell	$2,093.00	$1,271.00	$1,271.00	$2,191.00
City of Everett				$900.00
City of Snohomish				$1,442.00
City of Mukilteo				$1,875.00
City of Issaquah	$2,443.83	$1,258.21	$1,500.18	$4,839.27
City of Sammamish				$14,706.89
Peer Group Average	***$2,268.42***	***$1,264.61***	***$1,385.59***	***$4,187.02***

Another way to look at the fees, to see an "apples to apples" comparison, is to convert the PM PHT fees to equivalent per residential unit fees, or to convert the per residential unit fees to equivalent PM PHT.

The following table provides the conversion from per PM PHT rates to per residential unit rates based on accepted trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual. These conversions illustrate that the City of Marysville's average rates per residential unit are ***below the averages of the peer group.***

Agency	Per Residential Unit		
	Single-Family	Duplex	Multi-Family
Marysville 2006	***$3,175.00***	***$2,317.75***	***$1,968.50***
City of Arlington	$3,388.55	$1,744.60	$2,080.10
City of Bothell	**$2,093.00**	**$1,271.00**	**$1,271.00**
City of Everett	$909.00	$468.00	$588.00
City of Snohomish	$1,436.22	$739.44	$881.64
City of Mukilteo	$1,893.75	$975.00	$1,162.50
City of Issaquah	**$2,443.83**	**$1,258.21**	**$1,500.18**
City of Sammamish	**$14,853.96**	**$11,471.38**	**$9,118.27**
Peer Group Average	***$3,859.76***	***$2,530.67***	***$2,321.27***

The following table provides the conversion from per residential unit rates to per PM PHT rates, also based on the ITE Trip Generation Manual. These calculations illustrate that although the City of Sammamish publishes per residential unit rates, the rates are effectively the same PM PHT rate of $14,707 for all land uses. The per PM PHT rates for residential units in the City of Issaquah, however, are about half of the commercial PM PHT trip rates. Other than the City of Marysville, only the City of Bothell provides a variable PM PHT rate between different types of residential units, and the City of Bothell ***residential rates are equal to or less than the commercial rates.***

Agency	Per PM PHT			
	Single-Family	Duplex	Multi-Family	Commercial
Marysville 2006	***$3,206.75***	***$1,437.00***	***$1,023.62***	***$1,300.00***
City of Arlington	**$3,355.00**	**$3,355.00**	**$3,355.00**	**$3,355.00**
City of Bothell	$2,113.93	$660.92	$788.02	**$2,191.00**
City of Everett	**$900.00**	**$900.00**	**$900.00**	**$900.00**
City of Snohomish	**$1,422.00**	**$1,422.00**	**$1,422.00**	**$1,422.00**
City of Mukilteo	**$1,875.00**	**$1,875.00**	**$1,875.00**	**$1,875.00**
City of Issaquah	$2,419.63	$2,419.63	$2,419.65	**$4,839.27**
City of Sammamish	$14,706.89	$14,706.89	$14,706.89	**$14,706.89**
Peer Group Average	***$3,827.49***	***$3,619.92***	***$3,638.08***	***$4,187.02***

Summary and Conclusions

The Impact Fee Analysis indicates that using the 2006 method of calculating and the impact fees would result in a "***Maximum Possible Impact Fee***" **of between $14,550 and $18,106,** depending on the projects assumed in the Whiskey Ridge / Sunnyside neighborhood.

The Impact Fee Analysis further indicates that using the 2006 method of calculating and discounting the impact fees would result in a ***Commercial Rate of between $3,201 and $3,983 per PM PHT*** and a ***Single Family Residential Rate of between $7,712 and $9,576 per unit.***

Comparisons with mitigation fees in other jurisdictions indicate that the above ***commercial rates would be about 5% to 24% less*** than the peer group average, while the above ***residential rates would be about 100% to 150% greater*** than the peer group average.

The comparisons also show that none of the peer group jurisdictions provide a greater discount to commercial developments, and in fact two jurisdictions appear to provide a greater discount to residential developments.

It is also recommended that the Impact Fee Calculation method be reviewed when the Transportation Element of the Comprehensive Plan is updated in 2008.

CITY OF MARYSVILLE
Marysville, Washington

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF MARYSVILLE AMENDING THE OFFICIAL ZONING MAP OF THE CITY AND PROVIDING FOR THE AREA-WIDE REZONING OF PROPERTY WITHIN THE CITY TO CONFORM TO THE EAST SUNNYSIDE/WHISKEY RIDGE SUBAREA PLAN.

WHEREAS, the City of Marysville has developed and implemented, through its Comprehensive Plan and Zoning Code, certain provisions for identification of zoning regulations, planning subareas, zoning districts and development standards to be operative within the City of Marysville; and

WHEREAS, pursuant to Ordinance No. 2570, as codified in MMC 19.04.020 and 19.04.030, and in conjunction with the development of the Zoning Code, a map entitled "Official Zoning Map, Marysville, Washington" was adopted, identifying various regions and properties in the City and identifying the zoning designations in which the property is located; and

WHEREAS, pursuant to RCW 36.70A.130(2)(a), the City Council has adopted a subarea plan for the East Sunnyside/Whiskey Ridge neighborhood; and

WHEREAS, as a result of the adoption of said subarea plan and pursuant to Chapter 36.70A RCW, , it is necessary that said area be zoned to conform to the City's Comprehensive Plan; and

WHEREAS, the Planning Commission held public hearings on December 11, 2006 and January 23, 2007, at which members of the public, including property owners whose properties are affected by the City's zoning of the area, were permitted to speak and address the issue of the proposed zoning designations; and

WHEREAS, after the public hearings and further study by the Planning Commission, the Planning Commission recommended to the City Council approval of the proposed area-wide zoning, which is substantially in conformance with the City's Comprehensive Plan, along with associated maps which depict the specific properties to be zoned; and

WHEREAS, the City Council held a public hearing on April 23, 2007, where further public input was allowed on the subject of the area-wide zoning proposed and recommended by the Planning Commission; and

WHEREAS, the City Council has considered the public testimony, the report and recommendation of staff and the Planning Commission, and finds that the proposed zoning designations are consistent with the City's Comprehensive Plan, are intended to and will implement the Plan, and will benefit the public health, safety and welfare, if adopted as set forth in Exhibits A and B;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON DO ORDAIN AS FOLLOWS:

Section 1. The parcels of property listed on the spreadsheet attached hereto, marked as Exhibit A, incorporated herein by this reference, are hereby zoned as indicated on said attached Exhibit A, the original of which shall be on file with the office of the City Clerk.

Section 2. The Official Zoning Map of the City as referenced in MMC 19.04.030 is hereby amended to reflect the changes provided in Section 1 hereof, so that the Official Zoning Map shall be as shown on the map attached hereto as Exhibit B and incorporated herein by this reference, the original of which shall be on file with the office of the City Clerk.

Section 3. A copy of this ordinance shall be filed with the County Assessor's office, Snohomish County, State of Washington.

Section 4. All ordinances or parts of ordinances of the City of Marysville in conflict herewith are hereby repealed.

Section 5. This ordinance shall take effect and be in full force five (5) days after the date of publication by summary.

PASSED by the City Council and APPROVED by the Mayor this _____ day of _____, 2007.

ORDINANCE - 2
W/wpf/mv/ord.rezone05

CITY OF MARYSVILLE

By_____
DENNIS KENDALL, Mayor

ATTEST:

By_____
City Clerk

Approved as to form:

By_____
GRANT K. WEED, City Attorney

Date of Publication: _____

ORDINANCE - 3
W/wpf/mv/ord.rezone05

EXHIBIT A

PARCEL ID	OWNER	MAIL ADDRESS	MAIL CITY	SITE ADDRESS	OLD DESIGNATION	NEW DESIGNATION
00590700021201	MCCOWN LEWIS	4218 87TH AVE NE	EVERETT, WA 98205-12	4218 87TH AVE NE	UNDESIGNATED	MFL
00590700022100	JENNINGS WILLIAM & LUCINDA	UNKNOWN	UNKNOWN, WA	4022 DENSMORE RD	UNDESIGNATED	MFL
00590700022101	HAACK JOEL M & JUDITH H	3709 87TH AVE NE	EVERETT, WA 98205-12	4029 87TH AVE NE	UNDESIGNATED	MFL
00590700022102	DUNNE RANDALL D	4022 DENSMORE RD	EVERETT, WA 98205-12	4010 DENSMORE RD	UNDESIGNATED	MFL
00590700022103	FOX MATTHEW & DANIELLE	PO BOX 239	MONROE, WA 98272	4011 87TH AVE NE	UNDESIGNATED	MFL
00590700022105	FOX DANIELLE L	4011 87TH AVE NE	EVERETT, WA 98205-12	4011 87TH AVE NE	UNDESIGNATED	MFL
00590700022201	KELLY NEWELL E	4130 DENSMORE ROA	EVERETT, WA 98205	4130 DENSMORE RD	UNDESIGNATED	MFL
00590700023501	COLVIN SAMUEL L	3920 DENSMORE RD	EVERETT, WA 98205	3920 DENSMORE RD	UNDESIGNATED	MFL
00590700023502	AYLESWORTH JON	UNKNOWN	UNKNOWN, WA	3905 87TH AVE NE	UNDESIGNATED	MFL
00590700023503	BAKKER DONALD G	3811 87TH AVE NE	EVERETT, WA 98205	3925 87TH AVE NE	UNDESIGNATED	MFL
00590700023504	HEMLINGER BOB	3925 87TH AVE NE	EVERETT, WA 98205	3925 87TH AVE NE	UNDESIGNATED	MFL
00590700024302	KENNETH & JENNIFER PINNELL	3826 87TH AVE NE	EVERETT, WA 98205-12	3826 87TH AVE NE	UNDESIGNATED	MFL
00590700024303	GRONQUIST RICHARD D	10215 LUNDEEN PKW	LAKE STEVENS, WA 982	3804 87TH AVE NE	UNDESIGNATED	MFL
00590700024400	COLVIN SAMUEL L	3920 DENSMORE RD	EVERETT, WA 98205	3920 DENSMORE RD	UNDESIGNATED	MFL
00590700024401	BAKKER DONALD G	3811 87TH AVE N E	EVERETT, WA 98205	3811 87TH AVE NE	UNDESIGNATED	MFL
00590700024402	BAKKER DONALD G	3811 87TH AVENUE N	EVERETT, WA 98205	3805 87TH AVE NE	UNDESIGNATED	MFL
00590700024403	AYLESWORTH ORVAL & SHIRLEY	3807 87TH AVE NE	EVERETT, WA 98205	3805 87TH AVE NE	UNDESIGNATED	MFL
00590700024701	GARKA RANDALL	3725 87TH AVE NE	EVERETT, WA 98205	3725 87TH AVE NE	UNDESIGNATED	MU
00590700024702	GARKA MARJORIE M	3724 DENSMORE RD	EVERETT, WA 98205-12	3724 DENSMORE RD	UNDESIGNATED	MU
00590700024703	REAM JAMES	UNKNOWN	UNKNOWN, WA	3710 DENSMORE RD	UNDESIGNATED	MU
00590700024704	HAACK JOHN	3922 87TH AVE NE	EVERETT, WA 98205	3709 87TH AVE NE	UNDESIGNATED	MU
00590700025600	JOHNS LUCIE J	UNKNOWN	UNKNOWN, WA	3623 87TH AVE NE	UNDESIGNATED	CB
00590700025601	MLAKAR STEVEN J	UNKNOWN	UNKNOWN, WA	3609 87TH AVE NE	UNDESIGNATED	CB
00590700025602	MILLER PETER & GENA	3624 DENSMORE RD	EVERETT, WA 98205	3624 DENSMORE RD	UNDESIGNATED	CB
00590700025603	NOVACK LAWRENCE J	3606 DENSMORE RD	EVERETT, WA 98205-12	3606 DENSMORE RD	UNDESIGNATED	CB
00590700020300	LUND PETER E	PO BOX 656	MANSFIELD, WA 98830	8909 E SUNNYSIDE SCH	UNDESIGNATED	SFH 4.5-8
00590700020400	WISEMAN LYLE DUANE & JULIE R	8805 E SUNNYSIDE SC	EVERETT, WA 98205-11	8805 E SUNNYSIDE SCH	UNDESIGNATED	SFH 4.5-8
00590700022202	REED DANIEL F & WANDA S	8714 E SUNNYSIDE SC	EVERETT, WA 98205-11	8714 E SUNNYSIDE SCH	UNDESIGNATED	MFL
00590700025500	GRAHAM THOMAS C	3608 87TH AVE NE	EVERETT, WA 98205-12	3608 87TH AVE NE	UNDESIGNATED	MU
00590700025501	BABICH SUSAN J	3614 87TH AVE NE	EVERETT, WA 98205	3614 87TH AVE NE	UNDESIGNATED	MU
00590700025502	SALO KENNETH B	UNKNOWN	UNKNOWN, WA	3620 87TH AVE NE	UNDESIGNATED	MU
00590700025503	THOMAS TIM & SHELLY	3626 87TH AVE NE	EVERETT, WA 98205	3626 87TH AVE NE	UNDESIGNATED	MU
00590700024800	KALLICOTT ARTHUR H	4612 87TH AVENUE N	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	MFL
00590700024305	SCHACHT KENNETH G JR	507 SUDDEN VALLEY	BELLINGHAM, WA 982	3832 87TH AVE NE	UNDESIGNATED	MFL
00590700024304	HEUETT RICK A & KRISTEN L	3830 87TH AVE NE	EVERETT, WA 98205	3830 87TH AVE NE	UNDESIGNATED	MFL
00590700023600	HAACK JOHN / JOEL	UNKNOWN	UNKNOWN, WA	3922 87TH AVE NE	UNDESIGNATED	MFL
00590700022000	ANDEMOE LLC	10930 18TH ST SE	LAKE STEVENS, WA 982	4018 87TH AVE NE	UNDESIGNATED	MFL
00590700021300	GUMKE RICHARD R & FLORENCE	33320 112TH AVE SE	SULTAN, WA 98294	4112 87TH AVE NE	UNDESIGNATED	MFL
00590700020502	BURLINGAME WILLIAM	UNKNOWN	UNKNOWN, WA	4304 87TH AVE NE	UNDESIGNATED	MFL
00590700020503	SWEZEY KEITH R & JENNY L	4318 87TH AVE NE	EVERETT, WA 98205	4318 87TH AVE NE	UNDESIGNATED	MFL
00590700020501	VASIL JAMES A & PARKER CHERYL D	4332 87TH AVE NE	EVERETT, WA 98205-12	4332 87TH AVE NE	UNDESIGNATED	MFL

00590700023401	TASTAD PAUL B & PATRICIA	4324 99TH AVENUE N	EVERETT, WA 98205	UNKNOWN	UNDESIGNATED	MFL
00590700024501	TASTAD PAUL B & PATRICIA	4324 99TH AVENUE N	EVERETT, WA 98205	UNKNOWN	UNDESIGNATED	MU
00590700022300	LAKE STEVENS SCHOOL DIST 4	12708 20TH STREET N	LAKE STEVENS, WA 982	8820 E SUNNYSIDE SCH	UNDESIGNATED	MFL
00590700025701	SEATTLE CITY OF	PO BOX 94747	SEATTLE, WA 98124	UNKNOWN	UNDESIGNATED	CB
00590700020600	HUSWICK CARL / KATHLEEN	4333 83RD AVE NE	EVERETT, WA 98205	4305 83RD AVE NE	UNDESIGNATED	MFL
00590700020601	HUSWICK CARL A	UNKNOWN	UNKNOWN, WA	4333 83RD AVE NE	UNDESIGNATED	MFL
00590700021100	DEAN KEVIN	4213 83RD AVE NE	EVERETT, WA 98205	4213 83RD AVE NE	UNDESIGNATED	MFL
00590700021101	GREEN DONNA MARIE	4229 83RD AVE NE	EVERETT, WA 98205-12	4229 83RD AVE NE	UNDESIGNATED	MFL
00590700021400	HALL JAMES L & CLAUDIA	4115 83RD AVE NE	EVERETT, WA 98205	4115 83RD AVE NE	UNDESIGNATED	MFL
00590700021901	KOON JULIE L	4003 83RD AVE NE	EVERETT, WA 98205	4003 83RD AVE NE	UNDESIGNATED	MFL
00590700021902	PASTUCH STEVE	4618 BASSWOOD DR	EVERETT, WA 98203	4015 NE 83RD AVE	UNDESIGNATED	MFL
00590700021904	KOON JULIE L	4003 83RD AVE NE	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	MFL
00590700023701	WARBIS STEVE & MARLO	PO BOX 154	LAKE STEVENS, WA 982	3929 83RD AVE NE	UNDESIGNATED	MFL
00590700023702	JOHNSON KEVIN & NANCY	3911 83RD AVE NE	EVERETT, WA 98205	3911 83RD AVE NE	UNDESIGNATED	MFL
00590700024200	83RD STREET PROPERTIES LLC	1601 BROADWAY	EVERETT, WA 98201	UNKNOWN UNKNOWN	UNDESIGNATED	MFL
00590700024900	KALLICOTT ALAN G	3723 83RD AVE N E	EVERETT, WA 98205	3723 83RD AVE NE	UNDESIGNATED	MFL
00590700021202	HAACK BROTHERS CONSTRUCTION	3922 87TH AVE NE	EVERETT, WA 98201	UNKNOWN UNKNOWN	UNDESIGNATED	MFL
00590700025400	LOOP JAMIE L	350 LOGAN RD	CLE ELUM, WA 98922	3617 83RD AVE NE	UNDESIGNATED	MFL
00590700027001	ROSSI NICHOLAS & SUSAN	1018 WEST CUSTER	HELENA, MT 59601	3407 83RD AVE NE	UNDESIGNATED	MFL
00590700027002	MANN CHAD D & AMY C	3405 83RD AVE NE	EVERETT, WA 98205-11	3405 83RD AVE NE	UNDESIGNATED	MFL
00590700027003	SMITH TROY	3401 83RD AVE NE	EVERETT, WA 98205-11	3401 83RD AVE NE	UNDESIGNATED	MFL
00590700027601	HIBBARD TIMOTHY/WITHROW LESLIE	3323 83RD AVE NE	EVERETT, WA 98205	3323 83RD AVE NE	UNDESIGNATED	MFL
00590700027602	HIBBARD RALPH D & AUDREY M	3311 83RD AVE NE	EVERETT, WA 98205-11	3311 83RD AVE NE	UNDESIGNATED	MFL
00590700028503	VERIZON NORTHWEST INC	PO BOX 152206	IRVING, TX 75015	3211 83RD AVE NE	UNDESIGNATED	MFL
00590700030700	FINTZ JAMES A	2917 83RD AVE NE	EVERETT, WA 98205	2917 83RD AVE NE	UNDESIGNATED	MFL
00590700031600	FINTZ JAMES A	2917 83RD AVE NE	EVERETT, WA 98205	2821 83RD AVE NE	UNDESIGNATED	MFL
00590700030100	BUEHLER ELIZABETH	3021 83 AVE NE	EVERETT, WA 98205	3021 83RD AVE NE	UNDESIGNATED	MFL
00590700030101	SURFACE SANDRA L & WILSON TIMOTHY W	8425 30TH PL NE	EVERETT, WA 98205	8425 30TH PL NE	UNDESIGNATED	MFL
00590700030102	JOHNSON THOMAS I	8420 30TH PL NE	EVERETT, WA 98205-12	8420 30TH PL NE	UNDESIGNATED	MFL
00590700030103	BERGER RONALD A	3005 83RD AVE NE	EVERETT, WA 98205-12	3005 83RD AVE NE	UNDESIGNATED	MFL
00590700030104	SCHACHLE TURK	P O BOX 25254	SEATTLE, WA 98125	8419 30TH PL NE	UNDESIGNATED	MFL
00590700030105	SURFACE SANDRA L & WILSON TIMOTHY W	8425 30TH PL NE	EVERETT, WA 98205	8425 30TH PL NE	UNDESIGNATED	MFL
00590700030106	KELSCH LARRY & JOY	8419 30TH PL NE	EVERETT, WA 98205	8419 30TH PL NE	UNDESIGNATED	MFL
00590700026100	ROTHERICK EARL F III & AMANDA J	7532 SOPER HILL RD	EVERETT, WA 98205	3519 83RD AVE NE	UNDESIGNATED	MFL
00590700027603	HIBBARD THOMAS & MALINDA	3303 83RD AVE NE	EVERETT, WA 98205-11	3303 83RD AVE NE	UNDESIGNATED	MFL
00590700028500	FEIZBAKHSH HOOSHANG & EILEEN	11327 20TH ST NE	LAKE STEVENS, WA 982	3209 83RD AVE NE	UNDESIGNATED	MFL
00590700028501	JACKSON JULIE	18028 76TH AVE W	EDMONDS, WA 98026	3225 83RD AVE NE	UNDESIGNATED	MFL
00590700029200	JENSEN CARL E	7305 77TH DR NE	MARYSVILLE, WA 9827(	3123 83RD AVE NE	UNDESIGNATED	MFL
00590700028603	KRUSE KARA M	2929 WETMORE AVE	EVERETT, WA 98201	87TH AVE NE	UNDESIGNATED	MU
00590700027100	VON ROTZ TRUST	3426 87TH AVE NE	EVERETT, WA 98205-12	3426 87TH AVE NE	UNDESIGNATED	MU
00590700027101	HENRY MICHAEL B	UNKNOWN	UNKNOWN, WA	3410 87TH AVE NE	UNDESIGNATED	MU
00590700027102	LOBAUGH MICHAEL D & CARLA	3418 87TH AVE NE	EVERETT, WA 98205	3418 87TH AVE NE	UNDESIGNATED	MU
00590700027501	CARPENTER CATHERINE E	3324 87TH AVE NE	EVERETT, WA 98205	3324 87TH AVE NE	UNDESIGNATED	MU

00590700030200	FINTZ JAMES A	2917 83RD AVE NE	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	MU
00590700030300	STRAND GORDON O & MYRNA J	3021 87TH AVENUE N	EVERETT, WA 98205	3021 87TH AVE NE	UNDESIGNATED	CB
00590700030301	STRAND GORDON O & MYRNA J	3021 87TH AVE N E	EVERETT, WA 98205	3021 87TH AVE NE	UNDESIGNATED	CB
00590700029000	TURNPAW JEANNE	UNKNOWN	UNKNOWN, WA	3205 87TH AVE NE	UNDESIGNATED	CB
00590700028705	WHITE KENNETH W & CLISE HOLLY	3303 87TH AVE NE	EVERETT, WA 98205	3303 87TH AVE NE	UNDESIGNATED	CB
00590700028706	BRODLAND GEORGE H & RAMONA M	3225 87TH AVE NE	EVERETT, WA 98205-12	3225 87TH AVE NE	UNDESIGNATED	CB
00590700028602	STETTLER LISA & GIBBS JAMES	3226 87TH AVE NE	EVERETT, WA 98205	3226 87TH AVE NE	UNDESIGNATED	MU
00590700029100	SPADE DAVID V & KATHLEEN L	310 E 11TH ST	SNOHOMISH, WA 9829	3106 87TH AVE NE	UNDESIGNATED	MU
00590700027500	SYKES THOMAS & ELAINE	19101 36TH AVE W ST	LYNNWOOD, WA 9803(	3306 87TH AVE NE	UNDESIGNATED	MU
00590700028604	KRUSE KARA M	2929 WETMORE AVE	EVERETT, WA 98201	87TH AVE NE	UNDESIGNATED	MU
00590700028605	KRUSE KARA M	2929 WETMORE AVE	EVERETT, WA 98201	87TH AVE NE	UNDESIGNATED	MU
00590700025900	PAYLOR BRENT C & TERI D	3517 87TH AVE NE	EVERETT, WA 98205	3517 87TH AVE NE	UNDESIGNATED	CB
00590700026000	HAUGEN ROALD & LOIS	1909 SUMMIT	EVERETT,, WA 98201	3516 87TH AVE NE	UNDESIGNATED	MU
00590700030402	FINKE WILLIAM J & ROBERT D	3191 WESTERN DR	CAMERON PARK, CA 95	UNKNOWN UNKNOWN	UNDESIGNATED	CB
00590700027200	WILLIAMS JANICE A	3422 DENSMORE RD	EVERETT, WA 98205	3422 DENSMORE RD	UNDESIGNATED	CB
00590700028707	LYNCH JAMES R & JOYCE M/KEVEN R/KAREN	3210 DENSMORE RD	EVERETT, WA 98205-12	3210 DENSMORE RD	UNDESIGNATED	CB
00590700025800	SNOHOMISH CO PROP MGMT	3000 ROCKEFELLER A\	EVERETT, WA 98201	UNKNOWN UNKNOWN	UNDESIGNATED	CB
00590700028901	LOONEY WILLIAM A	PO BOX 68456	SEATTLE, WA 98168	UNKNOWN UNKNOWN	UNDESIGNATED	CB
00590700027400	WILLIAMS JANICE A	3422 DENSMORE RD	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	CB
00590700028708	BOWMAN AARON T & ALLISON JENINE M	3216 DENSMORE RD	EVERETT, WA 98205	3216 DENSMORE RD	UNDESIGNATED	CB
00590700027300	DEMOPOLIS CHRIS	7013 LINDEN NORTH	SEATTLE, WA 98103	UNKNOWN UNKNOWN	UNDESIGNATED	CB
00590700028800	LOONEY WILLIAM A	P O BOX 66098	SEATTLE, WA 98166	UNKNOWN UNKNOWN	UNDESIGNATED	CB
00590700030600	FINTZ JAMES A	2917 83RD AVE NE	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	MU
00590700031700	SKUCY MARIE L	8609 SOPER HILL ROA	EVERETT, WA 98205	8609 SOPER HILL RD	UNDESIGNATED	MU
00590700031800	MATSON HARRIETT E	8833 SOPER HILL RD	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	CB
00590700031801	MATSON HARRIETT / KALLICOTT GAIL	8833 SOPER HILL RD	EVERETT, WA 98205	8833 SOPER HILL RD	UNDESIGNATED	CB
00590700030500	MATSON HARRIETT E	8833 SOPER HILL RD	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	CB
00590700007702	ERICKSON GORDON R	7312 53RD AVE N E	MARYSVILLE,, WA 9827	UNKNOWN UNKNOWN	UNDESIGNATED	SFH 4.5-8
00590700007801	TUDOR CHARLES A & RANI E	5229 87TH AVE NE	EVERETT, WA 98205-11	5229 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700007802	STOTT FAMILY TRUST	5309 87TH AVE NE	EVERETT, WA 98205	5309 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700009100	O'NEILL CRAIG J & BRONWEN F	5205 87TH AVE NE	EVERETT, WA 98205	5205 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700010101	BROWER GEORGE D	7619 143RD AVE NE	LAKE STEVENS, WA 982	UNKNOWN UNKNOWN	UNDESIGNATED	SFH 4.5-8
00590700010200	STOTT BRYCE A	5205 87TH AVE NE	EVERETT, WA 98205	5127 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700010300	PARRISH MARTI	UNKNOWN	UNKNOWN, WA	5112 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700011400	ERDAHL GLENN & MARLENE TRUST	5014 87TH AVE N E	EVERETT, WA 98205	5014 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700011501	MOULTON DEAN L	5003 87TH AVE NE	EVERETT, WA 98205	5003 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700012600	OSBORN ASA V	10029 N DAVIES RD	LAKE STEVENS, WA 982	4927 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700013801	BRENGMAN MICHAEL B & KATHLEEN	UNKNOWN	UNKNOWN, WA	4826 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700015100	IZZARD BILL K & HEATHER R	4726 87TH AVE NE	EVERETT, WA 98205	4726 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700016201	KALLICOTT ARTHUR H	4612 87TH AVENUE N	EVERETT, WA 98205	4614 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700017302	GARNER LAWRENCE H	4515 87TH AVE N E	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	SFH 4.5-8
00590700017400	GARNER LAWRENCE H	4515 87TH AVE N E	EVERETT, WA 98205	4515 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700017600	MINOR MARK E & GAIL L	8512 EAST SUNNYSIDI	EVERETT, WA 98205	8512 E SUNNYSIDE SCH	UNDESIGNATED	MFL

00590700018700	DRAKE STEVE B & DEIDRE L	8504 E SUNNYSIDE RD	EVERETT, WA 98205	8624 E SUNNYSIDE SCH	UNDESIGNATED	MFL
00590700018701	COOK MARK	4406 87TH AVE NE	EVERETT, WA 98205	4406 87TH AVE NE	UNDESIGNATED	MFL
00590700018702	VASIL JAMES A & PARKER CHERYL D	4332 87TH AVE NE	EVERETT, WA 98205-12	UNKNOWN UNKNOWN	UNDESIGNATED	MFL
00590700018800	GARNER LAWRENCE H	4515 87TH AVE N E	EVERETT, WA 98205	4429 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700018902	GARNER LAWRENCE H	4515 87TH AVE N E	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	SFH 4.5-8
00590700011601	MOULTON DEAN L	5003 87TH AVE NE	EVERETT, WA 98205	87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700012501	JOHNSON GAIL E & TERRY L	4829 87TH AVE NE	EVERETT, WA 98205	87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700012700	SCHINDLER GLORIA A	4922 87TH AVE NE	EVERETT, WA 98205	4922 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700012701	SCHINDLER GLORIA A	4922 87TH AVE NE	EVERETT, WA 98205	4922 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700009000	HARTMAN DAVID A & LORRIE J	5228 87TH AVE N E	EVERETT, WA 98205	5228 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700007904	SCHOLL DENNIS R	5320 87TH AVE NE	EVERETT, WA 98205	87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700007902	SCHOLL DENNIS R	5320 87TH AVE NE	EVERETT, WA 98205	5320 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700016302	EASTBURY BARBARA S	4613 87TH AVE NE	EVERETT, WA 98205	4613 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700016304	MILLER MARK & MARCI	PO BOX WSECU	OLYMPIA, WA 98507	4617 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700011500	MOULTON MURRAY & DARLENE	5009 87TH AVE NE	EVERETT, WA 98205-11	5009 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700011502	MOULTON MURRAY & DARLENE	5009 87TH AVE NE	EVERETT, WA 98205-11	5009 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700017501	BACK LINDA MARIE	4508 87TH AVENUE N	EVERETT, WA 98205	4508 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700017500	MYASNIKOV ANDREY & SVETLANA	PO BOX 1533	MARYSVILLE, WA 9827(	4524 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700016300	MURRAY CHARLES & MARSHA	4623 87TH AVE NE	EVERETT, WA 98205-11	4623 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700013900	JOHNSON GAIL E & TERRY L	4829 87TH AVE NE	EVERETT, WA 98205	4829 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700014001	JOHNSON GAIL E & TERRY L	4829 87TH AVE NE	EVERETT, WA 98205	87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700016305	HORTON ROBERTA K	4619 87TH AVE NE	EVERETT, WA 98205	4619 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700015002	LYFORD BERT A & YVONNE	4717 87TH AVE NE	EVERETT, WA 98205	4713 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700015003	NORDSTROM DANIEL JASON & BRENDA HELEN	4717 87TH AVE NE	EVERETT, WA 98205-11	4717 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700012803	NOGALES ELEANOR M	4925 83RD AVE NE	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	SFH 4.5-8
00590700008901	HOLLAND REBECCA L	5209 83RD AVE NE	EVERETT, WA 98205	5209 83RD AVE NE	UNDESIGNATED	SFH 4.5-8
00590700010400	PEARSON HARRY U	5015 83RD AVENUE N	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	SFH 4.5-8
00590700010401	ROE MONTE A	5121 83RD AVE NE	EVERETT, WA 98205	5121 83RD AVE NE	UNDESIGNATED	SFH 4.5-8
00590700012801	DYER CAROL A	4907 83RD AVE NE	EVERETT, WA 98205	4907 83RD AVE NE	UNDESIGNATED	SFH 4.5-8
00590700012802	NOGALES ELEANOR M	4925 83RD AVE NE	EVERETT, WA 98205	4925 83RD AVE NE	UNDESIGNATED	SFH 4.5-8
00590700011300	PEARSON SUSAN CLYSTIA ANN	5015 83RD AVE NE	EVERETT, WA 98205-11	5015 83RD AVE NE	UNDESIGNATED	SFH 4.5-8
00590700011301	PEARSON HARRY U	5015 83RD AVENUE N	EVERETT, WA 98205	5015 83RD AVE NE	UNDESIGNATED	SFH 4.5-8
00590700008001	DYER WILLIAM J	5329 83RD AVE NE	EVERETT, WA 98205-11	5329 83RD AVE NE	UNDESIGNATED	SFH 4.5-8
00590700008900	HAYES CARROLL F & JUNE A	5223 83RD AVE NE	EVERETT, WA 98205	5223 83RD AVE NE	UNDESIGNATED	SFH 4.5-8
00590700008902	HAYES CARROLL F & JUNE A	5223 83RD AVE NE	EVERETT, WA 98205	5223 83RD AVE NE	UNDESIGNATED	SFH 4.5-8
00590700007901	SCHOLL DENNIS R	5320 87TH AVE NE	EVERETT, WA 98205	87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700007903	SCHOLL DENNIS R	5320 87TH AVE NE	EVERETT, WA 98205	87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700015200	SHARKEY BRIAN*	6311 CADY RD	EVERETT, WA 98203-45	8411 E SUNNYSIDE SCH	UNDESIGNATED	SFH 4.5-8
00590700015201	DEGROOT ARTHUR R & ADRIA	4625 83RD AVENUE N	EVERETT, WA 98205	4625 83RD AVE NE	UNDESIGNATED	SFH 4.5-8
00590700013802	BALKE CARL N	UNKNOWN	UNKNOWN, WA	4820 87TH AVE NE	UNDESIGNATED	SFH 4.5-8
00590700016202	KALLICOTT ARTHUR H	4612 87TH AVENUE N	EVERETT, WA 98205	8507 E SUNNYSIDE SCH	UNDESIGNATED	SFH 4.5-8
00590700017700	PROCTOR JAMES	8310 E SUNNYSIDE SC	EVERETT, WA 98205	8310 E SUNNYSIDE SCH	UNDESIGNATED	MFL
00590700016102	PROCTOR JAMES & KATHERINE	8310 E SUNNYSIDE SC	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	MFL

00590700018600	LACEY DOUGLAS H	4427 83RD AVE NE	EVERETT, WA 98205	4427 83RD AVE NE	UNDESIGNATED	MFL
00590700018601	LACEY DOUGLAS H	4427 83RD AVENUE N	EVERETT, WA 98205	4427 83RD AVE NE	UNDESIGNATED	MFL
00590700013700	DEGROOT ARTHUR & ADRIA	4625 83RD AVE N E	EVERETT, WA 98205	UNKNOWN UNKNOWN	UNDESIGNATED	SFH 4.5-8

CITY OF MARYSVILLE
Marysville, Washington

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF MARYSVILLE, WASHINGTON, AMENDING THE CITY'S DEVELOPMENT REGULATIONS RELATED TO RESIDENTIAL DENSITY INCENTIVES AND AMENDING CHAPTER 19.26 OF THE MARYSVILLE MUNICIPAL CODE.

WHEREAS, the City Council of the City of Marysville finds that from time to time it is necessary and appropriate to review and revise the City's development regulations, such as those set forth in the City's Zoning Code (Title 19 MMC); and

WHEREAS, the City's Planning Commission and professional planning staff are recommending that the City's development regulations related to residential density incentives need to be revised and updated in order to encourage developers to utilize more flexible land use development approaches, which can result in projects that accomplish the goals of the Comprehensive Plan and that further the public interest of the City and its citizens; and

WHEREAS, the amendments proposed for adoption in this ordinance are consistent with the following required findings of MMC 19.56.030:

(1) The amendments are consistent with the purposes of the comprehensive plan;
(2) The amendments are consistent with the purpose of Title 19 MMC;
(3) There have been significant changes in the circumstances to warrant a change;
(4) The benefit or cost to the public health, safety and welfare is sufficient to warrant the action; and

WHEREAS, after providing notice to the public as required by law, on December 11, 2006 and January 23, 2007, the Planning Commission held public hearings on proposed changes to the City's development regulations; and

WHEREAS, at a public hearing on April 23, 2007,the Marysville City Council reviewed and considered the amendments to the City's development regulations proposed by the Planning Commission; and

WHEREAS, the City has submitted the proposed development regulation revisions to the Washington State Department of Community, Trade, and Economic Development as required by RCW 36.70A.106; and

WHEREAS, the City has complied with the requirements of the State Environmental Policy Act, Ch.43.21C RCW, (SEPA) by issuing an addendum on January 16, 2007 to the Final EIS for the City's Comprehensive Plan and Development Regulations;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON DO ORDAIN AS FOLLOWS:

Section 1. Ch. 19.26 MMC is hereby amended by amending MMC 19.26.030 to read as follows:

19.26.030 Public benefits and density incentives.

(1) The public benefits eligible to earn increased densities, and the maximum incentive to be earned by each benefit, are set forth in subsection (5) of this section. The density incentive is expressed as additional bonus dwelling units (or fractions of dwelling units) earned per amount of public benefit provided. Where a range is specified, the earned credit will be determined by the Community Development Director during project review:

(2) Bonus dwelling units may be earned through any combination of the listed public benefits.

(3) Residential development in R-12 through R-28 zones with property-specific development standards requiring any public benefit enumerated in this chapter shall be eligible to earn bonus dwelling units as set forth in subsection (5) of this section when the public benefits provided exceed the basic development standards of this title. When a development is located in a special overlay district, bonus units may be earned if the development provides public benefits exceeding corresponding standards of the special district.

(4) The guidelines for affordable housing bonuses, including the establishment of rental levels, housing prices and asset limitations, will be updated and adopted annually by the community development department. The update shall occur no later than June 30th of each year.

(5) The following are the public benefits eligible to earn density incentives through RDI review:

Benefit	Density Incentive
1. Affordable Housing a. Benefit units consisting of rental housing permanently priced to serve nonelderly low-income households (i.e., no greater than 30 percent of gross income for household at or below 50 percent of Snohomish County median income, adjusted for household size). A covenant on the site that specifies the income level being served, rent levels and requirements for reporting to the city shall be recorded at final approval.	1.5 bonus units per benefit, up to a maximum of 30 low-income units per five acres of site area; projects on sites of less than five acres shall be limited to 30 low-income units.
b. Benefit units consisting of rental housing designed and permanently priced to serve low-income senior citizens (i.e., no greater than 30 percent of gross income for one- or two-person households, one member of which is 62 years of age or older, with incomes at or below 50 percent of Snohomish County median income, adjusted for household size). A covenant on the site that specifies the income level being served, rent levels and requirements for reporting to the city of Marysville shall be	1.5 bonus units per benefit, up to a maximum of 60 low-income units per five acres of site area; projects on sites of less than five acres shall be limited to 60 low-income units.

recorded at final approval.	
c. Benefit units consisting of mobile home park space or pad reserved for the relocation of an insignia or noninsignia mobile home, that has been or will be displaced due to closure of a mobile home park located in the city of Marysville.	1.0 bonus unit per benefit unit.
2. Public Facilities (Schools, Public Buildings or Offices, Trails and Active Parks) a. Dedication of public facilities site or trail right-of-way meeting city of Marysville or agency location and size standards for the proposed facility type.	10 bonus units per usable acre of public facility land or quarter-mile of trail exceeding the minimum requirements outlined in other sections of this title.
b. Improvement of dedicated public facility site to city of Marysville standards for the proposed facility type.	2-10 (range dependent on facility improvements) bonus units per acre of improvement. If the applicant is dedicating the site of the improvements, the bonus units earned by improvements shall be added to the bonus units earned by the dedication.
c. Improvement of dedicated trail segment to city of Marysville standards.	1.8 bonus units per quarter-mile of trail constructed to city standard for pedestrian trails; or 2.5 bonus units per quarter-mile of trail constructed to city standard for multipurpose trails (pedestrian/bicycle/equestrian). Shorter segments shall be awarded bonus units on a pro rata basis. If the applicant is dedicating the site of the improvements, the bonus units earned by improvements shall be added to the bonus units earned by the dedication.
d. Dedication of open space, meeting city of Marysville acquisition standards, to the city, county or a qualified public or private organization such as a nature conservancy.	2 bonus unit per acre of open space.
3. Community Image and Identity a. Installation and/or dedication of an identified city gateway (per City of Marysville gateways master plan)	5 bonus units per "Medium Scale – Cantilevered" gateway installation(final design, landscaping and signage) 6 bonus units per "Large Scale-Horizontal" gateway installation (final design, landscaping and signage) 10 bonus units per "Informational Reader

	Board" gateway installation (final design, landscaping and signage) 10 bonus units per civic space gateway (Comeford Park) improvement (final design, landscaping and signage) 5 bonus units per large gateway improvement (final design, landscaping and signage)
4. Historic Preservation a. Dedication of a site containing an historic landmark to the city of Marysville or a qualifying nonprofit organization capable of restoring and/or maintaining the premises to standards set by Washington State Office of Archaeology and Historic Preservation.	.5 bonus unit per acre of historic site.
b. Restoration of a site or structure designated as an historic landmark.	.5 bonus unit per acre of site or 1,000 square feet of floor area of building restored.
5. Locational/Mixed Use a. Developments located within a quarter-mile of transit routes, and within one mile of fire and police stations, medical, shopping, and other community services.	5 percent increase above the base density of the zone.
b. Mixed use developments over one acre in size having a combination of commercial and residential uses.	10 percent increase above the base density of the zone.
6. Storm Drainage Facilities Dual use retention/detention facilities a. Developments that incorporate active recreation facilities that utilize the storm water facility tract.	5 bonus units per acre of the stormwater facility tract used for active recreation.
b. Developments that incorporate passive recreation facilities that utilize the storm water facility tract.	2 bonus units per acre of the stormwater facility tract used for passive recreation.
7. Project Design a. Preservation of substantial overstory vegetation (not included within a required NGPA). No increase in permitted density shall be permitted for sites that have been cleared of evergreen trees within two years prior to the date of application for PRD approval. Density increases granted which were based upon preservation of existing trees shall be forfeited if such trees are	Five percent increase above the base density of the zone.

removed between the time of preliminary and final approval and issuance of building permits.	
b. Retention or creation of a perimeter buffer, composed of existing trees and vegetation, additional plantings, and/or installation of fencing or landscaping, in order to improve design or compatibility between neighboring land uses.	1 bonus unit per 500 lineal feet of perimeter buffer retained, enhanced or created (when not otherwise required by city code).
c. Project area assembly involving 20 acres or more, incorporating a mixture of housing types (detached/attached) and densities.	10 percent increase above the base density of the zone.
d. Private park and open space facilities integrated into project design.	5 bonus units per improved acre of park and open space area. Ongoing facility maintenance provisions are required as part of RDI approval.
8. Energy Conservation a. Benefit units that incorporate conservation features in the construction of all on-site dwelling units qualifying as Energy Star Homes per Washington State Energy Code, as amended.	0.10 bonus unit per benefit unit that achieves the required savings.
9. Low Impact Development (LID) a. Integration of LID measures in project design and stormwater facility construction.	5-10 percent increase over base density (range dependent on degree of LID integration in project design and construction)
10. Pedestrian Connections and Walkability. a. Construction of an identified pedestrian/bicycle deficiency (per city of Marysville improvement plan). Improvements may consist of paved shoulder, sidewalk or detached path or walkway depending on adjoining conditions.	1 bonus unit per 75 lineal feet of frontage improvement (curb, gutter, sidewalks) on minor arterial streets. (Fee in lieu of improvement at $15,000 per bonus unit) 1 bonus unit per 100 lineal feet of frontage improvement (curb, gutter, sidewalks) on neighborhood collector or collector arterial streets. 1 bonus unit per 300 lineal feet of walkway improvement (7' paved shoulder or walkway) (Rate may be increased if additional right of way is required)

...

Section 2. Severability. If any section, subsection, sentence, clause, phrase or work of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality thereof shall not affect the validity or constitutionality of any other section, subsection, sentence, clause, phrase or word of this ordinance.

PASSED by the City Council and APPROVED by the Mayor this _____ day of _____, 2007.

CITY OF MARYSVILLE

By: _____
DENNIS L KENDALL, MAYOR

Attest:

By: _____
CITY CLERK

Approved as to form:

By: _____
GRANT K. WEED, CITY ATTORNEY

Date of Publication: _____

Effective Date: _____
(5 days after publication)

CITY OF MARYSVILLE
Marysville, Washington

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF MARYSVILLE, WASHINGTON, AMENDING THE COMPREHENSIVE PLAN'S TRANSPORTATION ELEMENT TO REFLECT ADDITIONS TO THE STREET CAPITAL FACILITIES PLAN AND AMENDING THE 2007 BUDGET TO REFLECT ADDITIONAL REVENUES FROM THE INCREASED PROPORTIONATE SHARE AMOUNT OF TRAFFIC IMPACT FEES.

WHEREAS, as one of the cities in Snohomish County, the City of Marysville is required under RCW 36.70A.130(4)(a) to review and, if needed, revise its comprehensive plan and development regulations to ensure that the plan and regulations comply with the Growth Management Act (GMA); and

WHEREAS, in the process of adopting an initial subarea plan for the East Sunnyside/Whiskey Ridge area, the City of Marysville has added two projects to the Transportation Element's street capital facilities plan, which will result in increased project costs utilized in the assessment of traffic impact fees pursuant to MMC 18B.14.030; and

WHEREAS, the revisions adopted herein are intended to update the calculation of the City's traffic impact fees; and

WHEREAS, the Planning Commission conducted public hearings on December 11, 2006 and January 23, 2007, and forwarded a recommendation to the City Council to amend the City's Transportation Element and adopt a secondary traffic impact fee that would apply only to the Whiskey Ridge subarea boundary;

WHEREAS, the City Council heard concerns from individuals and interest groups regarding the proposed secondary traffic impact fee who requested that the City instead address traffic impacts through an update to the existing traffic impact fees assessed city wide;

WHEREAS, the City Council conducted a public hearing onApril 23, 2007, to consider amending the Comprehensive Plan's Transportation Element by adopting the attached Exhibit A as a revision to the Comprehensive Plan's Transportation Element in order

to incorporate additions to the street capital facilities plan resulting from the annexation of the East Sunnyside/Whiskey Ridge area; and

WHEREAS, the Comprehensive Plan amendment adopted herein is being adopted concurrently with the amendment of the City's 2007 budget, in order to comply with the Growth Management Act's exception to the one comprehensive plan amendment per year limitation for amendments to the comprehensive plan's capital facilities element that occur concurrently with the adoption or amendment of a city budget, as set forth in RCW 36.70A.130(2)(a);

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Adoption of Transportation Plan Update.
The City Council hereby amends the Comprehensive Plan by adopting revisions to Appendix A of the Transportation Element , as set forth in the attached Exhibit A.

Section 2. The 2007 Budget, Ordinance No. 2676, is hereby amended to reflect the additional revenues that are expected to result from the effect that the street capital facility plan revisions adopted herein will have on the proportionate share amount of traffic impact fees.

PASSED by the City Council and APPROVED by the Mayor this _____ day of _____, 2007.

CITY OF MARYSVILLE

By_____
DENNIS L. KENDALL, Mayor

ATTEST:

By_____
City Clerk

Approved as to form:

By_____
GRANT K. WEED, City Attorney

Date of Publication: _____

Effective Date (5 days after publication): _____

CITY OF MARYSVILLE

Marysville, Washington

RESOLUTION NO. _____

A resolution of the City of Marysville, Snohomish County, Washington, to authorize the Mayor to sign the Water and Sewer Mutual Aid Agreement – 2006 for the provision of personnel, materials and equipment to other water and sewer utilities (Purveyors) in Snohomish County who are parties to this Agreement and who request assistance to handle a disaster or emergency.

WHEREAS, on September 11, 1995 City of Marysville Resolution No. 1743 authorized the Mayor to sign the Sewer and Water Mutual Aid Agreement for the provision of personnel and equipment in disasters and emergencies, and

WHEREAS, the Mayor signed the Sewer and Water Mutual Aid Agreement as authorized by Resolution No. 1743, and

WHEREAS, signatories to the Sewer and Water Mutual Aid Agreement (developed in 1995) have jointly proposed language revisions to clarify the terms and conditions for their existing Sewer and Water Mutual Aid Agreement, and

WHEREAS, the Marysville City Council has the power and authority to approve the signing of the Water and Sewer Mutual Aid Agreement – 2006, for the purpose of providing personnel, materials and equipment to other water and sewer utilities (Purveyors) of Snohomish County who are parties to this Agreement and who request assistance to handle a disaster or emergency, and

WHEREAS, the City of Marysville has reviewed the Water and Sewer Mutual Aid Agreement – 2006, attached hereto as Exhibit A (which document is made a part hereof by this reference and are available for public inspection in the office of the City Clerk of the City of Marysville, and

WHEREAS, the City Council, finds that it is in the best interest of the City of Marysville and its water and sewer system customers to secure participation in mutual aid with other Purveyors of Snohomish County for responding to disasters and emergencies;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Marysville, Washington as follows:

1. The City Council approves and the Mayor is authorized to sign the Water and Sewer Mutual Aid Agreement – 2006 attached to this resolution.

2. The authorization of the Water and Sewer Mutual Aid Agreement - 2006 shall immediately supersede and rescind the City of Marysville's prior signatory to the Sewer and Water Mutual Aid Agreement (developed in 1995).

3. The City Clerk is directed and authorized to send a certified copy of this resolution to the Everett Utilities Director.

PASSED by the City Council and APPROVED by the Mayor this _____day of_____2007.

CITY OF MARYSVILLE

_____
Mayor

Attest:

_____
City Clerk

Approved as to Form:

_____
City Attorney

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CITY OF MARYSVILLE

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: May 14, 2007

AGENDA ITEM: Authorizing the surplus of equipment which is no longer compatible with the City's technology infrastructure.	AGENDA SECTION: Consent
PREPARED BY: Worth Norton, Information Services Manager	AGENDA NUMBER:
ATTACHMENTS 1. Resolution No. _____	APPROVED BY: MAYOR DJH / CAO
BUDGET CODE: 50300090 535000	AMOUNT:

The attached resolution contains a list of I.T. hardware and that has become obsolete within the City's I.T. infrastructure. While the listed PCs are able to run some of the City's older software, they are not satisfactory for many of the new software applications now being used or are in the planning stages. These PCs will be gradually phased out over the next 18 months.

The City's Information Services Department is committed to green technology based on reduce, reuse and recycle. First the City will reuse all PCs that can be used in a less demanding situation within the City prior to being surplused if the costs of retaining the PCs are lower than replacing them. Then all PCs that are still in good enough condition will be sold. Only PCs that are damaged or have no useable value will be recycled.

These PCs will be completely cleaned of all data and reformatted with their original operating systems. All refurbishing will be done by our I.T. Interns to minimize costs. In addition, all purchasers will be required to sign a letter of understanding that PCs are considered hazardous waste and must be disposed of properly.

We expect to be able to auction off most of the PCs using an "eBay style" purchase now or best bid format. This system has been successfully used for two years and has sold approximately 23 surplused PCs and miscellaneous networking equipment.

RECOMMENDED ACTION: City staff recommends that the City Council authorizes the Mayor to sign the attached resolution declaring certain items of personal property to be surplus and authorizing the sale and disposal thereof.
COUNCIL ACTION:

CITY OF MARYSVILLE
Marysville, Washington

RESOLUTION NO. _____

A RESOLUTION OF THE CITY OF MARYSVILLE DECLARING CERTAIN ITEMS OF PERSONAL PROPERTY TO BE SURPLUS AND AUTHORIZING THE SALE OR DISPOSAL THEREOF.

WHEREAS, by determination of the City's Information Services Department, the following list of equipment is no longer compatible with the City's technology infrastructure.

WHEREAS, the following list of equipment and software has reached the end of its' useful lifecycle.

WHEREAS, the following hardware, as identified, is considered hazardous waste and must be disposed of either though hazardous waste recycling or resale with a signed understanding of eventual hazardous waste disposition.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MARYSVILLE, WASHINGTON AS FOLLOWS:

The items of personal property listed below are hereby declared to be surplus and are of no further public use or necessity.

Qty.	*Description*
34	PCs and Servers with 1.7GHz Processors or Older
9	Laptops with 1.06GHz Processors or Older
40	17" CRT Monitors

The City is hereby authorized to sell or dispose of the above referenced items in a manner which, by the direction of the Information Services Manager, nets the greatest amount to the City.

PASSED by the City Council and APPROVED by the Mayor this _____ day of May, 2007.

CITY OF MARYSVILLE

By_____
DENNIS KENDALL, Mayor

ATTEST:

By_____
LILLIE LIEN, Deputy City Clerk

Approved as to form:

By_____
GRANT K. WEED, City Attorney