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## MEMORANDUM

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**TO:** JIM STREIT  
**FROM:** ERIC LABRIE  
**SUBJECT:** BETROZOFF JONES PRELIMINARY PLAT  
WATER AND SEWER COMP PLAN ANALYSIS  
**JOB NO:** 1426-002-012  
**DATE:** AUGUST 15<sup>TH</sup>, 2013

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The Betrozoff Jones Preliminary Plat application is proposing to utilize the existing water and sewer infrastructure within Red-Wood Rd. as the project does not front 154<sup>th</sup> Place NE. These utility connections were previously approved by Rob Odle in an email message dated August 21<sup>st</sup>, 2012 where he states: "...this alternative connection would not compromise future parcels from reasonable sewer service to their parcels."

Mr. Odle came to this conclusion based on the following information and attached exhibits, which were previously submitted on July 5<sup>th</sup>, 2012:

ESM has analyzed the "Wedge Area" in further detail, looking to take advantage of existing infrastructure where possible, account for sloped areas that are generally too steep to develop, and to reduce the amount of area that will be served by low pressure sewer systems. Please review the following with the map for reference:

- We looked at the "Wedge Area" constraints with 2' contours and identified approximate areas that we would typically consider developable (25% slope or less). This resulted in 4 distinct areas that are labeled A through D on the attached map (from north to south).
- Area A - Gravity sewer service to the upland portion of this area can be provided via the existing manhole in Redmond-Woodinville Rd. as shown. This would accommodate a total of approximately 35 lots. The western portion of Area A is generally too steep to accommodate Urban densities and would likely result in very few (less than 10) lots that could obtain service through the Betrozoff Jones development, or up 154<sup>th</sup> Place NE to a future manhole at its intersection with NE 116<sup>th</sup> Street.
- Area B is cut off from Area A by the stream that exists within the right-of-way of NE 117<sup>th</sup> St. It is also separated from Area C by an area of approximately 50% slopes. The topography of this area could allow for construction of gravity sewer in a southerly

direction, across Area C to the exiting manhole in 154<sup>th</sup> Place NE as shown on the exhibit. As an alternative, this area could also be served via a low pressure sewer system (grinder pumps) crossing Redmond-Woodinville Rd. and feeding into the existing manhole in NE 113<sup>th</sup> Ct. Based on the current zoning (R-4) and other constraints, there would only be about 15 lots serviced by this system.

- Area C is by far the smallest area; however, it could also be served via a gravity sewer system that flows into the existing manhole at NE 110<sup>th</sup> Place and 154<sup>th</sup> Place NE.
- Area D could be provided sewer service with a gravity or low pressure system, as already approved in the City's Comprehensive Plan. Route 124-9A, which is an approved alternative would allow the entire area to be developed with a gravity system if the underlying land owners cooperated by bringing the line across the western edge of the properties, adjacent to the park. As an alternative, the area is already planned to be served by a low pressure system along Route 124-9, which is planned to extend northerly within 154<sup>th</sup> PI NE. Instead, it could extend a much shorter distance, via a low pressure system to the existing manhole in 154<sup>th</sup> PI NE, to the south.
- We believe that the alternative alignment (124-9A) is a better option to provide sewer service to this sub-basin for the following reasons:
  1. It is a much more efficient and shorter route (by  $\pm 450'$ ), which runs along the Urban Growth Boundary instead of bisecting the Rural area;
  2. It could alleviate the need for the low pressure sewer systems within the "southern Wedge area;" and
  3. It provides for the most efficient use of existing and future sewer infrastructure since the "northern Wedge area" can be serviced from the existing sewer main in Redmond-Woodinville Rd.

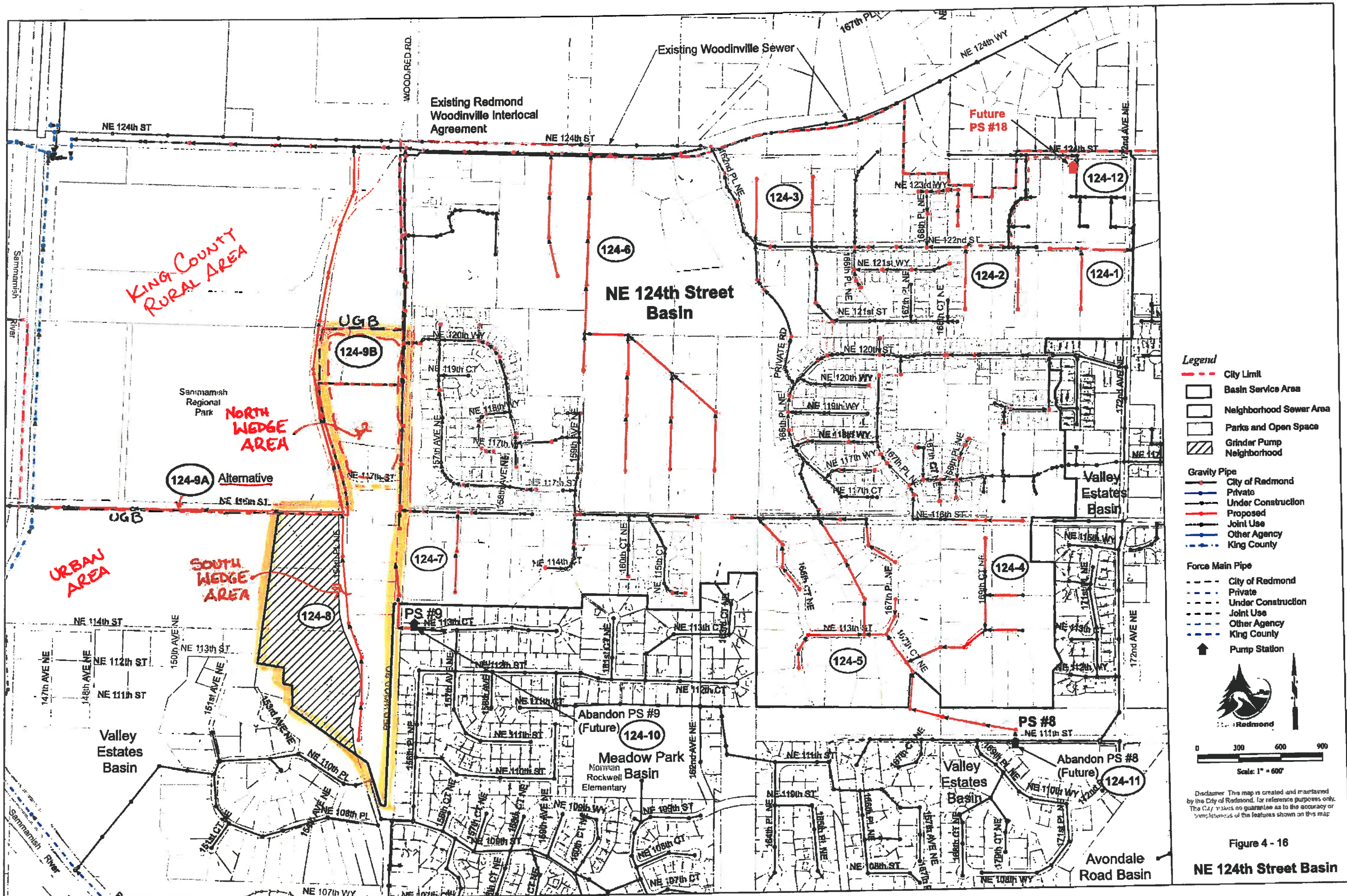
Based on this information, we have reached the following conclusions:

1. The entire "Wedge Area" can be provided with sewer service in a more efficient manner than shown in the current Comprehensive Plan; and
2. No area is forced to construct any more sewer main than they would have, if they chose to proceed prior to the development of Area A.

With respect to the water connection, we assert that the plan does meet the intent of the water comprehensive plan. The water comprehensive plan is not specific about how this particular project will obtain water service; it only notes that development adjacent to 154<sup>th</sup> Place NE would be responsible to extend a water line across its frontage.

It is unclear why the main would loop all the way up 154<sup>th</sup> Place NE, outside the City limits and through the Rural area to NE 124<sup>th</sup> Street. This is especially the case when a much more efficient loop could be achieved by going through this property with this project and the property to the west. Furthermore, it is unclear why the comprehensive plan map would show a water main extension within the unopened portion of NE 116<sup>th</sup> Street, between Redmond-Woodinville Road and 154<sup>th</sup> Place NE, when the city has mapped a critical area (stream) within this corridor.

Based on this information, we have concluded that this project does not conflict with the city's comprehensive water plan.



**Legend**

- City Limit
- Basin Service Area
- Neighborhood Sewer Area
- Parks and Open Space
- Grinder Pump Neighborhood

**Gravity Pipe**

- City of Redmond
- Private
- Under Construction
- Proposed
- Joint Use
- Other Agency
- King County

**Force Main Pipe**

- City of Redmond
- Private
- Under Construction
- Joint Use
- Other Agency
- King County

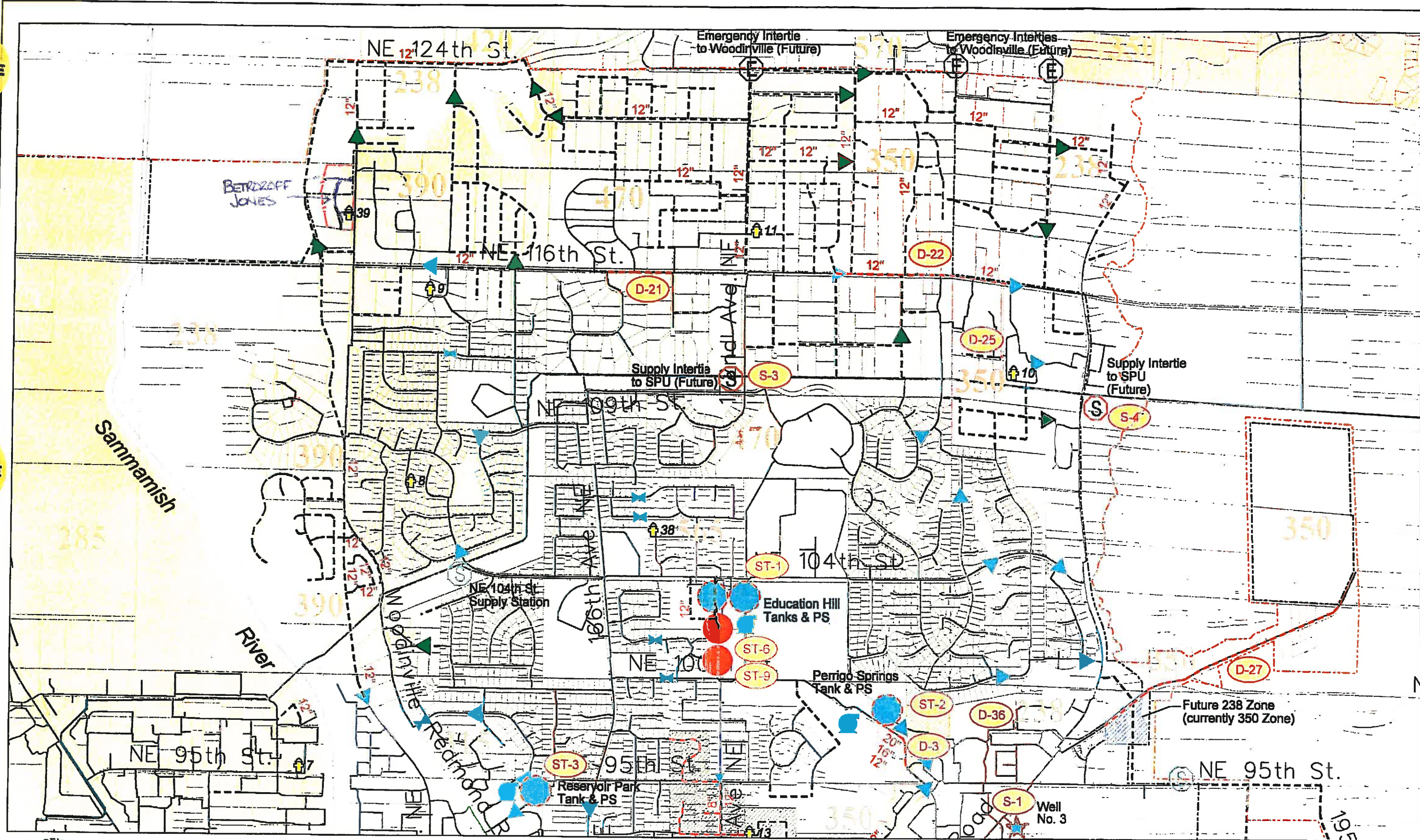
Pump Station

Redmond

Scale: 1" = 600'

Figure 4 - 16  
NE 124th Street Basin

WPC Prop Plan 1000 5.12.14.mxd Drawn On: 11/16/14



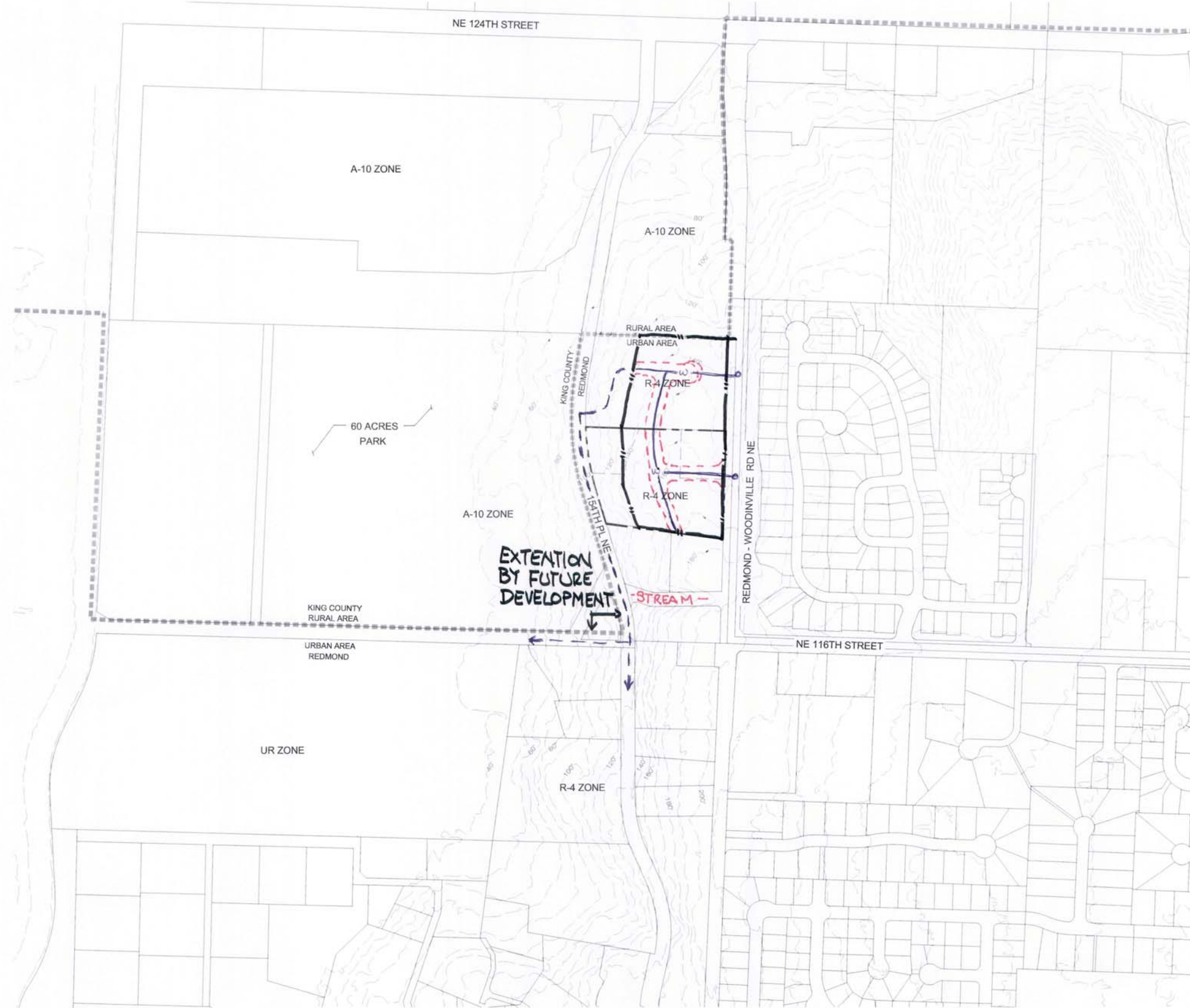
Notes:  
 - Not all pipes or pipe sizes are shown.  
 - Verify required pipe sizes and locations with City staff prior to design.  
 - A detailed map of the existing system is included in Appendix F.



Legend	
—	Existing Pipe (City of Redmond)
- - -	Existing Pipe (Other Utilities)
- - -	Existing Tolt Pipe (SPU)
(D13)	Capital Improvement
(D13)	Capital Improvement Number
(D13)	Developer Improvement
- - -	City Limits
- - -	Service Area Boundary
33	Fire Flow Location
S	Supply Intertie
E	Emergency Intertie
■	Meter Station
■	PRV Station
■	Zone Valve
■	Booster Pump Station
★	Well
●	Water Storage Facility

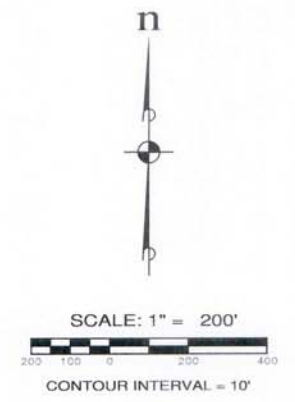
Figure 8-1  
 North Well Service Area Capital Improvements  
 City of Redmond 2002 Water System Plan

A PORTION OF THE SW 1/4 OF SECTION 26, TOWNSHIP 26 N, RANGE 5 E., KING COUNTY, WA



**SITE DATA**  
 PARCEL NO: 942850-0070  
 ADDRESS: 11818 WOODINVILLE-REDMOND RD NE  
 AREA: 242,431 SQ. FT. (5.57 AC.)  
 ZONING: R-4  
 MIN. LOT SIZE: 7,000 SQ. FT. AVG.  
 LOT WIDTH CIRCLE: 40 FT.  
 LOT FRONTAGE: 20 FT.  
 SETBACKS: FRONT: 15'  
 REAR: 10'  
 SIDE STREET: 15'  
 SIDE INTERIOR: 5/10'  
 JURISDICTION: REDMOND  
 WATER DISTRICT: REDMOND  
 SEWER DISTRICT: REDMOND

**LEGAL DESCRIPTION**  
 LOTS 1 - 4 OF KCSP 1181034, RECORDING NO. 8301060563



THE INFORMATION SHOWN ON THIS PLAN WAS DERIVED FROM A VARIETY OF SOURCES, INCLUDING GIS AND AERIAL LIDAR, AND HAS NOT BEEN FIELD VERIFIED.

REVISIONS		
NO.	DESCRIPTION	DATE

**ESM CONSULTING ENGINEERS, LLC**  
 161 South 353rd Street  
 Federal Way, WA 98003  
 www.esmcivil.com  
 Land Surveying  
 Project Management  
 Land Planning  
 Landscape Architecture

SHERMAN BUILDING COMPANY, LLC  
**BETROFF PROPERTY**  
 PROPOSED SEWER SERVICE MAP  
 WASHINGTON  
 REDMOND

JOB NO.:	1426-002-012
DWG. NAME:	PL-03
DESIGNED BY:	ESL
DRAWN BY:	ESL
CHECKED BY:	
DATE:	1/3/2012
DATE OF PRINT:	

File: \\s:\projects\1426-002-012\1426-002-012.dwg  
 Plot Date: 1/3/2012 11:44:30 AM  
 Plotter: HP DesignJet 2400