CITY OF MCMINNVILLE
PLANNING DEPARTMENT
231 NE FIFTH STREET
MCMINNVILLE, OR 97128
503-434-7311

www.mcminnvilleoregon.gov

MCMINNVILLE URBAN RENEWAL ADVISORY COMMITTEE

Community Development Center, 231 NE 5th Street
Wednesday, October 5, 2016
4:00 PM

COMMITTEE MEMBERS	ITEM
Walt Gowell Chair	**CALL TO ORDER / INTRODUCTIONS**
Kyle Faulk	**APPROVALOF MINUTES** September 7, 2016 *(Exhibit 1)*
Ed Gormley	**DISCUSSION ITEMS**
Kelly McDonald	Five Year Strategic Plan *(Exhibit 2)*
Cassie Sollars	**CITIZEN COMMENTS**
Wendy Stassens	**COMMITTEE MEMBER COMMENTS**
Marilyn Worrix	**STAFF COMMENTS**
Kem Carr Ex-Officio	**ADJOURN**
Scott Hill Ex-Officio	
Rebecca Quandt Ex-Officio	**NEXT MEETING: November 2, 2016**

*Please note that these documents are also available on the City's website www.mcminnvilleoregon.gov; click on Government, click on Boards and Commissions, click on McMinnville Urban Renewal Advisory Committee. You may also request a copy from the Planning Department at the Community Development Center, 231 NE 5th Street, 503-434-7311.

EXHIBIT 1

City of McMinnville
4:00pm
MURAC
Regular Meeting

September 7, 2016;

Community Development Center
McMinnville, Oregon

MEETING NOTES

Members Present: Kyle Faulk, Walt Gowell, Kelly McDonald, Cassie Sollars, Wendy Stassens, and Marilyn Worrix

Ex-Officio Members Present: Scott Hill, Kem Carr, and Rebecca Quandt

Members Absent: Ed Gormley, Marilyn Worrix

Staff Present: Marcia Baragary, Mike Bisset, Martha Meeker, Ron Pomeroy, and Heather Richards

Guests Present: Jeff Knapp (Visit McMinnville), Steven Rupp (Committee for Public Art), Jared Miller and Tara Rich

1. Call to Order / Introductions

Chair Walt Gowell called the meeting to order at 4:00pm and briefly highlighted the items listed on the meeting's agenda.

Cassie Sollars and Kyle Faulk were introduced as the two new appointed members of the committee.

McMinnville's new Associate Planner, Chuck Darnell, was welcomed and introductions were provided.

2. Discussion Items: Since Mike Bisset needed to leave early, the Chair elected to move the Alpine Avenue discussion item to the top of the agenda.

Alpine Avenue Update – Mike Bisset and Marcia Bargaray provided an update on the progress of Alpine Avenue. Mike reported that they were close to 100% Construction Documents and that the project would go out to bid soon, however the team wanted some input from MURAC on the proposed fence design. Marcia reported that the bond authority would be presented to the McMinnville Urban Renewal Agency Board on September 27, 2016.

3. Action Items

Approval of Meeting Notes –

July 6, 2016. Kelly McDonald MOVED for approval of the meeting notes as submitted. The motion was SECONDED by Wendy Stassens, and passed unanimously.

August 3, 2016. Kelly McDonald MOVED for approval of the meeting notes as submitted. The motion was SECONDED by Wendy Stassens, and passed unanimously.

Façade Improvement Grants –

Financial Update – staff reported that there was $10,000 available for grants in FY 2016/17.

Mural at 1005 NE Cowls - Heather Richards described the façade improvement grant application for a new mural at 1005 NE Cowls Street. She explained that the request was for $500 for the project and that MURAC's role would be to approve the financing request. However since the mural would be considered public art it would still need to be reviewed by the McMinnville Downtown Association Committee for Public Art. Following discussion of this proposal by committee members, Kelly McDonald MOVED for approval of the grant application for the mural at 1005 NE Cowls Street as recommended by staff; Cassie Sollars SECONDED the motion, which was passed unanimously.

4. Discussion Items Continued:

Next Steps – Developing a Strategic Five Year Plan –

Heather Richards suggested that since the Alpine Avenue project was concluded in terms of design and financing it was time for MURAC to start considering their next steps. Heather Richards' suggestion was to take the next meeting to discuss a five year strategic plan but that she would like some input on the primary projects that the committee would like to discuss so that she can provide the appropriate background information to support the committee. 5th Street Project, Third Street Project, Public Parking and Wayfinding were the priority projects that the committee wanted to discuss at their next meeting.

5. Adjournment

There being no other business, Chair Gowell adjourned the meeting at 4:47 pm.

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EXHIBIT 2 - STAFF REPORT

DATE: October 5, 2016
TO: McMinnville Urban Renewal Advisory Committee Members
FROM: Heather Richards, Planning Director
SUBJECT: Work Session Discussion – Five Year Strategic Plan

Report in Brief:

This is a work session to develop a five year strategic plan for the McMinnville Urban Renewal District.

Background:

At their meeting on September 7, 2016, the McMinnville Urban Renewal Advisory Committee (MURAC) discussed the need to develop a five year strategic plan for the McMinnville Urban Renewal District by reviewing the projects outlined in the adopted plan (scope, budget and timing for implementation), discussing whether or not the conditions that led to the scope, prioritization and funding remain the same, and aligning the expectations for project implementation with the financial cash-flow forecast after incurring the indebtedness for the Alpine Avenue improvement project.

Below is a table of the authorized plan projects, their assumed budgets and the anticipated timeframe for implementation. This table is derived from excerpts of the McMinnville Urban Renewal Report (Attachment A).

PROJECT	UR AMOUNT	TIMEFRAME	STATUS
Alpine Avenue	$5,300,000	2016-2032	$2.2 MM, 2017
3rd Street Streetscape	$2,325,000	2016-2022	
Loan/Grant Programs	$940,000	Incremental	On-Going
Adams/Baker	$600,000	2021-2024	
5th Street	$1,200,000	2023-2024	Complete
1st/2nd Streets	$1,000,000	2025-2030	
Lafayette Avenue	$1,500,000	2034-2038	
Downtown Signals	$700,000	2017-2026	
Public Parking	$1,000,000	2025, 2032-2035	
2nd Street	$1,100,000	2037-2039	
Property Acquisition	$450,000	As Needed	On-Going
Public Infrastructure	$590,000	2038-2039	
Financing Fees	$218,895	As Needed	On-Going
Administration	$1,129,996	Annual	On-Going
Reimbursement of UR Planning	$50,000	2017-18	Complete

Attachment A: Excerpts from the McMinnville Urban Renewal Report
Attachment B: 5th Street Project Sheet
Attachment C: Third Street Streetscape Study
Attachment D: McMinnville Urban Renewal District Cash Flow Analysis
Attachment E: City of Redmond Parking Inventory/Capacity Study

Discussion:

On September 7, 2016, MURAC members identified the following four initiatives to focus on at their October 5, 2016 meeting.

- **5th Street Project**
- **3rd Street Project**
- **Public Parking**
- **Wayfinding**

In order to facilitate those discussions the following information is being provided for each discussion:

- **5th Street Project:** The current construction project achieves the full scope of the project outlined in the McMinnville Urban Renewal Plan (Attachment B). No further action is required. With that said there are opportunities for additional streetscape improvements at the pedestrian bulbouts of Irvine and 5th, such as public art, flower plantings, kiosk, wayfinding, etc.

- **3rd Street Project:** In 2005, the City of McMinnville commissioned the Third Street Streetscape Plan, a plan that described a unified streetscape improvement project consisting of benches, bike racks, sidewalks, landscaping, shelters, street lighting, crosswalks, street trees, etc. (Attachment C). This plan served as the inspiration for the urban renewal plan project. The committee should review the plan, ascertain what has already been accomplished, what still needs to be accomplished and how to develop an implementation plan for the improvements based upon the cash flow analysis for the McMinnville Urban Renewal District (Attachment D).

- **Public Parking:** Public parking inventory has been identified as a critical issue for both the Third Street District and NE Gateway District. A parking management plan usually consists of parking programs and increased parking inventory which could be in the form of shared parking agreements, surface parking or structural parking. Usually the first step towards understanding a parking problem statistically is a parking analysis. It does not appear that McMinnville has engaged in an inventory analysis in at least five years. A 2012 Parking Analysis from the City of Redmond has been provided as a reference (Attachment E). Typically 85% capacity is the trigger for new inventory investment. This type of study approximately $15,000 depending upon the size of the area to be studied. The study could identify where the capacity issues exist and make a recommendation for location of new parking inventory.

- **Wayfinding:** Visit McMinnville is leading a community-wide discussion about the need for wayfinding in McMinnville that will help direct tourists to destinations and help to build upon the unique sense of place that is McMinnville. Costs for the design and specifications of a community-wide wayfinding project is approximately $20,000 - $25,000. This type of product would provide the design for vehicular wayfinding, highway wayfinding, pedestrian wayfinding, kiosks, etc. Visit McMinnville is considering applying for a Travel Oregon grant to help pay for either the design and build-out of a wayfinding program, or just the build-out of a program. This type of application will require a local match. Wayfinding is part of many of the urban renewal plan projects. The McMinnville Urban Renewal Agency (Agency) could choose to participate in either the design, the build-out or both the design and the build-out. Handouts will be provided at the meeting.

Attachment A: Excerpts from the McMinnville Urban Renewal Report
Attachment B: 5th Street Project Sheet
Attachment C: Third Street Streetscape Study
Attachment D: McMinnville Urban Renewal District Cash Flow Analysis
Attachment E: City of Redmond Parking Inventory/Capacity Study

Fiscal Impact:

Per Attachment D, after paying the annual debt service for the Alpine Avenue improvement project there are still funds available for other urban renewal projects in the next five years. Strategically the Agency could elect to save all of the money towards a larger project or spend some funds annually on the necessary design and planning for a future capital improvement project and/or spend some funds on smaller annual capital improvement projects. The current fund balance at the end of the 2016/2017 fiscal year is approximately $250,000.

Attachment A: Excerpts from the McMinnville Urban Renewal Report
Attachment B: 5th Street Project Sheet
Attachment C: Third Street Streetscape Study
Attachment D: McMinnville Urban Renewal District Cash Flow Analysis
Attachment E: City of Redmond Parking Inventory/Capacity Study

ATTACHMENT A

Below are excerpts from the 2013 McMinnville Urban Renewal Report describing projects, existing conditions at the time that led to the projects, funding and timing assumptions.

Notes in red are current status notes as of September, 2016.

THE RELATIONSHIP BETWEEN URBAN RENEWAL PROJECTS AND

The projects identified for the Area are described below, including how they relate to the existing conditions in the Area:

A. Public Infrastructure and transportation improvements

1. Alpine Avenue

This project will design and reconstruct Alpine Avenue in phases, including providing streetscape and district identity improvements. Streetscape features could include sidewalks, signage, landscaping, lighting, public use amenities, shelters, and public art to help improve the physical appearance of the district. It will also create a pedestrian environment that encourages the development (and redevelopment) of active uses such as shopping, entertainment, commercial and craft industrial business activity, and housing development.

Existing Conditions:

Alpine Avenue is a two-lane local street that is in very poor condition. A section on the north end is a gravel surface. The section on the south end is paved, but the width is not consistent and there are no curbs, gutters, or sidewalks. There are no pedestrian amenities, such as streetscape improvements on the full length of Alpine Avenue. There is on-street parking.

Out to bid for project to build the Festival district (7th-10th) & Craft district (10th-11th). Work to be completed in 2017, and is funded via 2014 Transportation bonds and UR funds.

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2. 3rd Street Streetscape and District Identity Improvements

This project will design and construct streetscape improvements to 3rd Street as identified in the TSP. This project will implement various streetscape and design improvements through the district to establish a high quality and unique aesthetic. Such improvements could include:

- The undergrounding of overhead utilities,
- Gateways and directional signage,
- Landscaping and street tree improvements,
- Historic street lighting and traffic signal standards,
- Additional public use amenities (i.e. benches, bike racks, fountains, restrooms)
- Public sidewalks that integrate historic paving patterns and materials,
- Drafting and implementation of design standards and guidelines for the district (signage),
- Redesign and reconstruction of the US Bank Plaza for public events (should the property owner lease or sell the property to the Urban Renewal Agency),
- Redesign of mid-block crossings,
- Redesign/construction of downtown shelters (kiosks), and
- Public art.

The intent of these improvements is to improve the physical appearance of the district and create a pedestrian environment that encourages the development (and redevelopment) of active uses such as shopping, entertainment, commercial, and craft industrial business activity.

Existing Conditions:

3rd Street is the street that services the downtown commercial core. It is a two-lane street with on-street parking, sidewalks, curbs, and gutters. Streetscape improvements are recommended in the McMinnville TSP (p 4-23) and in the Pedestrian System Plan, Chapter 5 of the TSP, including the chart on p 5-12. Streetscape improvements have also been recommended in a number of adopted city plans, including the most recent Third Street Streetscape Plan, prepared in 2005.

Not included in 2014 Transportation bond project list

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3. Adams/Baker Couplet

This project will provide for the design and reconfiguration of the Adams/Baker couplet by adding curb extensions at major intersections within the corridor, providing new curb ramps for accessibility, adding pedestrian scale lighting, and delineating pedestrian crosswalks with pavers or similar materials.[1]

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[1] McMinnville Transportation Systems Plan, p 5-10, 5-11.

Existing Conditions:

This project is identified in the TSP, p 4-15. In general, while the sidewalks along Adams and Baker Streets are fairly contiguous and in decent shape, they are too narrow (four-five feet) to carry substantial pedestrian traffic, and there are many obstructions and obstacles within the sidewalk area that impede safe pedestrian travel. Several of the intersections along Adams and Baker Streets include curb ramps that do not meet Americans with Disabilities Act (ADA) guidelines.[2] In addition, this corridor, and the traffic volume it carries, provides a barrier between the historic McMinnville downtown to the east and the public park, aquatic center, library, and residential neighborhoods to the west. Improvements to this corridor, as identified in the City's adopted TSP, would help make travel within and across this corridor safer.

Not included in 2014 Transportation bond project list; ODOT may have grant resources for some of this work.

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4. 5th Street

The 5th Street project will provide for the design and reconfiguration of 5th Street from Lafayette Avenue to Adams Street, as identified in the TSP p 4-12, 4-15, and Appendix D. The project will add critical improvements necessary for 5th Street to function as an alternative to other east-west streets in the downtown commercial core (1st, 2nd, and 3rd streets, in particular). Such improvements would include adding curb extensions at major intersections, curb ramp and sidewalk replacement, as needed, and traffic signals at Adams Street, Baker Street, and Lafayette Avenue. An existing signal would also be removed at 4th and Adams and pavement would be repaired.

Existing Conditions:

5th Street is missing sidewalk and curb ramps at the railroad crossing and at Lafayette Street.. The intersections of 5th and Adams and Baker need to be reconfigured to help reduce congestion and vehicle emissions and increase safety.[3] In addition, the TSP proposes this street function in the future as an east-west alternative for vehicle traffic within and through the downtown area, a function it is not currently designed to accommodate.

Included in the 2014 Transportation bond project list – currently under construction with May 2017 completion date.

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[2] McMinnville Transportation Systems Plan, p 5-7.

[3] McMinnville Transportation Systems Plan, p 4-12. 4-15.

5. 1st and 2nd Street Improvements

The 1st and 2nd Street project will improve the corridor's safety and efficiency in moving traffic and pedestrians within the downtown area by providing curb extensions at major intersections and adding pedestrian scale lighting, a new traffic signal at 2nd and Davis, and crosswalk delineation.

Existing Conditions:

1st and 2nd Street each carry a significant volume of vehicular traffic traveling east-west along the southern edge of McMinnville's historic downtown. In so doing, they serve as physical barriers to pedestrian movement between the downtown and residential neighborhoods to the south, and further beyond, Linfield College.

The 2014 Transportation bond includes a project to add curb extensions at several intersections, and repaving portions of 1st and 2nd Streets (2018). The project will not include lighting improvements or the traffic signal at 2nd/Davis. (See Attached Figure 1)

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6. Lafayette Avenue

This project provides for the design and construction of Lafayette Avenue beautification and safety improvements. Lafayette Avenue will continue to serve vehicles as an arterial and freight route with new pedestrian safety improvements. Streetscaping and gateway treatments will help to calm traffic on the corridor and make it safer and more attractive for pedestrians through the use of better signage and wayfinding treatments, high-visibility crosswalks, and landscaping and other pedestrian, bicycle, and transit-oriented amenities.

Existing Conditions:

Lafayette Avenue is a three-lane minor arterial (a lane in each direction and a center refuge or turning lane). There are sidewalks but no street trees or furnishings and little sense of physical protection for the pedestrian. There is a bike lane, and no on-street parking.

Not included in 2014 Transportation bond project list

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7. Downtown Signal Improvements

The McMinnville TSP identifies a number of traffic signals that need to be upgraded to current standards, including accessibility improvements and interconnectivity. There are five existing signals in the Area that need to be upgraded. These are at: 3rd/Johnson, 3rd/Ford, 3rd/Davis, 2nd/Adams, and 2nd/Baker.

Existing Conditions:

The existing traffic control signals within the area need to be replaced in order to improve safety, traffic flow, and capacity at critical intersections.

The 2014 Transportation bond project list includes a project to upgrade the 2nd/Adams & 2nd/Baker signals (2017). Some interconnectivity will be included to the 3rd/Baker signals, and the new signals on 5th Street. The 5th Street project (2016-17) will interconnect to the 3rd/Johnson signal.

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8. Public Off-Street Parking

This project will provide additional public parking facilities to accommodate the anticipated increase in demand for parking. This parking could be public or could be a joint venture with the private sector.

Existing Conditions:

The current amount of parking provided in the Area will not be sufficient to support the anticipated level of development. As the downtown core continues to develop, additional parking will be required and parking may be a necessary component of the development of the Northeast Gateway Area.

9. 2nd Street Project

The project will provide for better movement through the 2nd Street and Adams Street intersection. The physical improvements are curb extensions at Baker Street, additional westbound travel lane if feasible and traffic signal replacement and timing.

Existing Conditions:

There is heavy east west traffic queuing in this area, with a lack of traffic signal capacity. This impedes traffic flow as well as impeding pedestrian flow through this intersection.

The 2014 Transportation bond includes a project to improve traffic flow along 2nd Street between Adams and Cowls. An additional left turn lane will be added between Adams and Baker, and a westbound to northbound will be added at the 2nd/Baker intersection. Planned construction is in 2017.

10. Public Infrastructure

The public infrastructure project includes public utilities or infrastructure projects as identified in adopted master plans. These projects would go in tandem with the street and streetscape improvement projects.

Existing Conditions:

There are public infrastructure needs in some of the streets designated for street and sidewalk improvements. There are old sanitary sewer, storm drainage, and water facilities in the area that will need to be upgraded. These public infrastructure improvements will need to be coordinated to occur at the same time as the other street and sidewalk improvements. There are also overhead utility lines in the area that should be located underground.

B. Planning and Development Assistance Programs

This project will establish and manage a package of low interest loan and/or small grant programs for business and residents to improve their property's appearance and condition, consistent with the goals and objectives of this plan (i.e., storefront and tenant improvement programs, signage, historic preservation, and financial and technical assistance).

Existing Conditions:

There are presently no loan or grant programs offered by the city to assist in the improvement of properties in the Area.

C. Debt Service and Administration

This project will allow for the repayment of costs associated with the preparation, adoption, and implementation of the McMinnville Urban Renewal Plan. This includes the potential repayment of the initial planning costs for the development of the urban renewal plan and feasibility study. It also includes ongoing administration and any financing costs associated with issuing long term debt, relocations and other administrative costs.

Existing Conditions:

As there is currently no urban renewal program, these activities do not exist.

D. Property Acquisition

This project will fund willing seller/willing buyer property acquisition and assembly of key properties for redevelopment, public open space, public parking, trail corridor, housing, or other use consistent with the goals and objectives of this plan.

Existing Conditions:

The city has general fund revenues and revenues from other specific funds such as systems development charges that can be used for property acquisition. By allowing acquisition in the urban renewal plan, tax increment funds could also be used for property acquisition.

THE ESTIMATED TOTAL COST OF EACH PROJECT AND THE SOURCES OF MONEYS TO PAY SUCH COSTS

The costs of the projects are shown in Table 14. The sources of funds are tax increment revenues. There will be other funding sources allocated where the estimated cost exceeds the tax increment revenues. These sources include general funds, system development charges, or other sources of funding the city may identify, including private developer contributions.

Table 14 – Projects to be Completed Using Urban Renewal Area Funds

Project	Estimated Cost	Urban Renewal Portion	Other Funding
Alpine Street Improvements	$5,300,000	$5,300,000	
3rd Street Streetscape	$2,325,000	$2,325,000	
Loan/Grant Programs	$940,000	$940,000	
Adams/Baker	$600,000	$600,000	
5th Street	$1,200,000	$1,200,000	
1st/2nd Street	$1,000,000	$1,000,000	
Lafayette Avenue	$1,500,000	$1,500,000	
Downtown Signals	$1,200,000	$700,000	$500,000
Public Parking	$1,000,000	$1,000,000	
2nd Street	$1,100,000	$1,100,000	
Property Acquisition	$450,000	$450,000	
Public Infrastructure	$590,000	$590,000	
Financing Fees	$218,895	$218,895	
Administration	$1,129,996	$1,129,996	
Reimbursement of UR Planning	$50,000	$50,000	
Present Value of Total Expenditures	$18,103,891	$18,603,891	$500,000

Source: City of McMinnville

THE ANTICIPATED COMPLETION DATE FOR EACH PROJECT

The infrastructure projects will be scheduled as shown in the financing plan in Table 15. The other projects will be ongoing and will be completed as directed by the Urban Renewal Agency (Agency). The Agency may change the completion dates in their annual budgeting process or as project decisions are made in administering the urban renewal plan. This financing plan shows large allocations to projects in the final year. This is due to the ability to use the debt reserve funds for the bonds that have been defeased in the final year of the plan, FY2038-39. The inflation rate is 3.5%. Administration is started at $30,000 a year and inflated at 3.5% annually.

The financing plan anticipates up-front funding for some of the infrastructure costs in the Northeast Gateway area to allow for the projected development to occur. This funding could come through other city funding sources or through an agreement with a developer to pay for some of the infrastructure costs as part of the development, to be re-paid when tax increment revenues are generated. The street system (Alpine Avenue) is most imperative, as development will not occur in that area unless the street is improved. If this up-front funding and the resulting infrastructure improvements do not occur, the projections for tax increment revenue will not be met.

Table 15 – Projects and Costs in Year of Expenditure Dollars

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Expenditures (nominal $)									
Alpine Avenue		$1,108,700		$593,900		$890,600		$1,362,900	
3rd Street		$110,900	$132,000	$1,282,700		$928,800		$408,900	
Loan/Grant Programs		$55,400				$127,200		$68,100	
Adams/Baker								$204,400	$183,400
5th Street									
1st and 2nd Street									
Lafayette Avenue									
Downtown Signal Improvements				$59,400	$122,900		$197,500		
Public Parking									
Property Acquisition									
2nd Street									
Public Infrastructure									
Reimbursement of UR Planning				$50,000					
Administration	$32,100	$33,300	$35,600	$38,200	$40,900	$43,800	$46,900	$50,300	$53,800
Financing Fees	$0	$27,000	$0	$40,000	$0	$40,000	$0	$40,000	$0
Total Expenditures	**$32,100**	**$1,335,300**	**$167,600**	**$2,064,200**	**$163,800**	**$2,030,400**	**$244,400**	**$2,134,600**	**$237,200**
Ending Fund Balance	**$26,503**	**$39,791**	**$16,091**	**$19,784**	**$29,979**	**$83,780**	**$39,512**	**$25,434**	**$21,139**
Inflation Percent	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%

Source: ECONorthwest

Table 15 – Projects and Costs in Year of Expenditure Dollars, continued

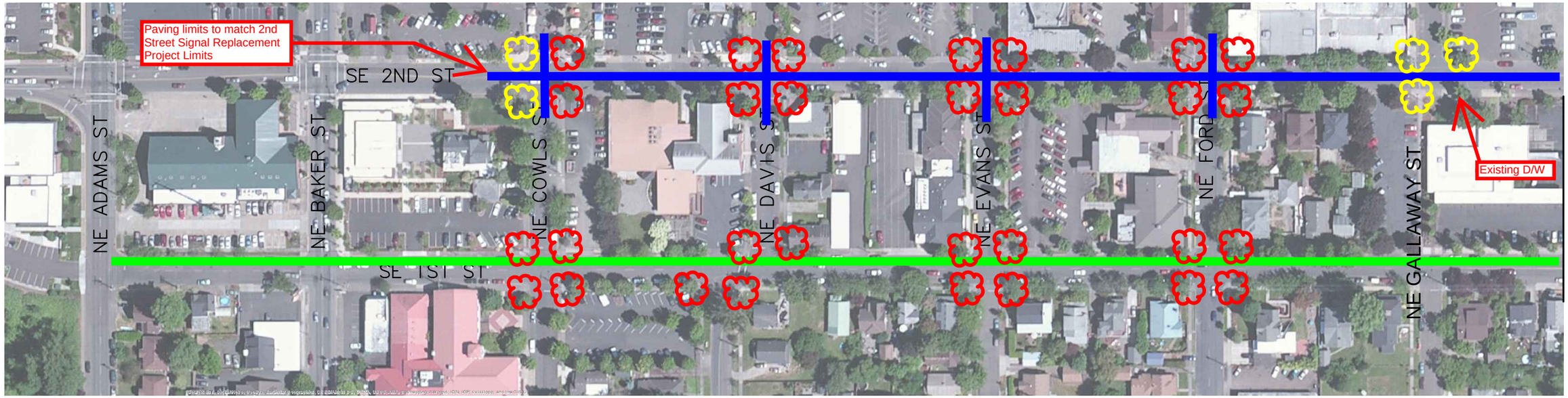
	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Expenditures (nominal $)									
Alpine Avenue			$938,400			$1,734,000	$89,700	$297,200	$384,500
3rd Street									
Loan/Grant Programs	$51,100		$78,200		$83,800	$26,000	$71,800	$37,200	$96,100
Adams/Baker	$467,200								
5th Street	$1,752,000								
1st and 2nd Street			$547,400	$80,900	$201,000	$780,300	$53,800		
Lafayette Avenue									
Downtown Signal Improvements	$131,400	$226,700	$93,800						
Public Parking			$703,800						
Property Acquisition			$610,000	$97,100					
2nd Street									
Public Infrastructure									
Reimbursement of UR Planning									
Administration	$57,700	$61,800	$66,200	$70,900	$75,900	$81,400	$87,200	$93,400	$100,000
Financing Fees	$48,000	$0	$60,000	$0	$0	$50,000	$0	$0	$0
Total Expenditures	**$2,507,400**	**$288,500**	**$3,097,800**	**$248,900**	**$360,700**	**$2,671,700**	**$302,500**	**$427,800**	**$580,600**
Ending Fund Balance	**$36,736**	**$40,535**	**$52,699**	**$29,687**	**$15,973**	**$16,694**	**$18,766**	**$33,589**	**$39,828**
Inflation Percent	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%

Source: ECONorthwest

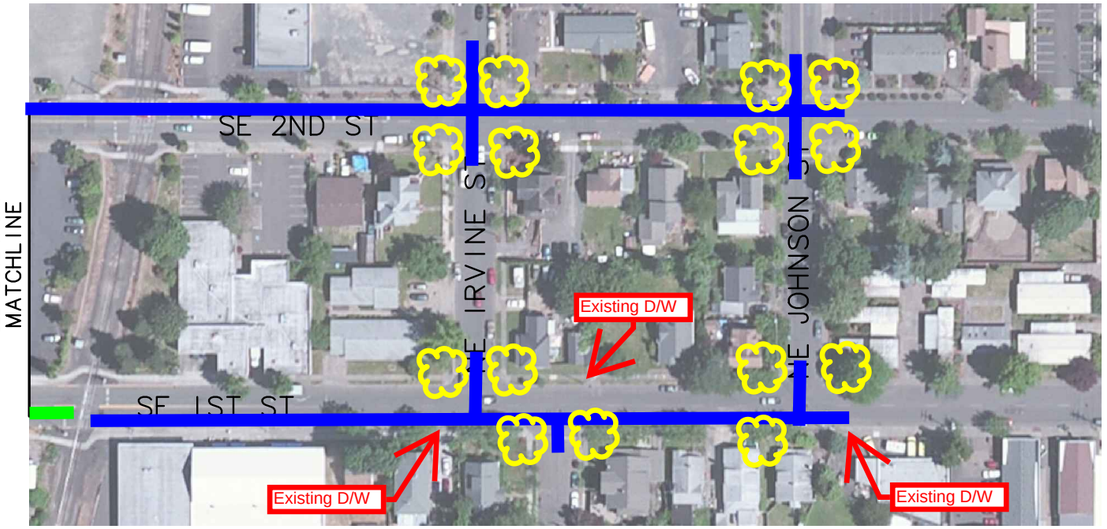
Table 15 – Projects and Costs in Year of Expenditure Dollars, continued

	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39
Expenditures (nominal $)							
Alpine Avenue	$179,100						
3rd Street							
Loan/Grant Programs	$99,500	$103,000	$106,600	$110,300	$114,200	$118,200	$440,300
Adams/Baker							
5th Street							
1st and 2nd Street							
Lafayette Avenue			$703,400	$992,700	$1,164,500	$496,300	
Downtown Signal Improvements							$244,600
Public Parking	$348,200	$669,300	$106,600				
Property Acquisition							
2nd Street						$685,300	$1,981,200
Public Infrastructure							$1,443,100
Reimbursement of UR Planning							
Administration	$107,100	$114,800	$122,900	$131,700	$141,100	$151,100	$161,900
Financing Fees	$0	$0	$0	$0	$0	$0	$0
Total Expenditures	**$733,900**	**$887,100**	**$1,039,500**	**$1,234,700**	**$1,419,800**	**$1,450,900**	**$4,271,100**
Ending Fund Balance	**$43,423**	**$51,202**	**$70,995**	**$67,346**	**$58,029**	**$55,557**	**$12,243**
Inflation Percent	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%

Source: ECONorthwe



1ST & 2ND ST



1ST & 2ND ST

LEGEND

PROPOSED CURB EXTENSION

PROPOSED CURB RAMP RETROFIT

PROPOSED PAVING LIMITS

FUTURE DRAINAGE AND PAVEMENT REHAB PROJECT

Date: July 2016
By: Andrew Giesy, P.E. (MSA)
Rev'd By: Bill Evonuk, P.E. (MSA)
Based on City email dated 4-11-2016

City Of McMinnville

STREET IMPROVEMENT/ REPAIR BOND PROJECTS

1st & 2nd Street Overview Map

September 2017

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Portland, Oregon 97204
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15-1751.1801

Figure 1: 1st and 2nd Street Pedestrian Improvements

NE 5th Street Improvement Project

CONSTRUCTION COMING SOON

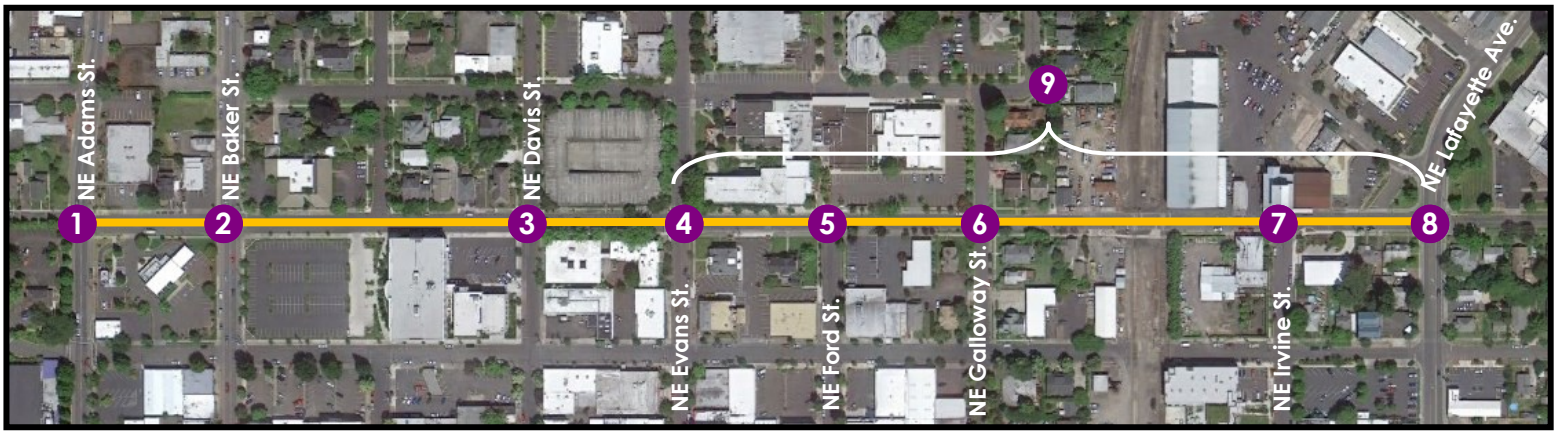
Construction along NE 5th Street is anticipated to begin in July 2016. This construction project will provide much needed improvements at multiple intersections along NE 5th Street to improve downtown traffic flow. Construction may cause traffic delays at various times during construction.

ABOUT THIS PROJECT

The NE 5th Street Improvement Project is one of five Capital Improvement Projects identified in the McMinnville Transportation Bond. This project will include upgrades to NE 5th Street between NE Adams Street and NE Lafayette Avenue to improve downtown traffic flow and pedestrian safety. Improvements include new traffic signals, intersection curb extensions and pavement surfacing. This project also will provide an alternate connection to downtown to alleviate congestion on 1st Street, 2nd Street and 3rd Street. Intersection improvements and signal installations along NE 5th Street are planned at NE Adams Street, NE Baker Street, NE Evans Street and NE Lafayette Avenue. Improved sidewalks and crosswalks will promote bike and pedestrian movements throughout the corridor.

WHERE?

Roadway improvements and construction along NE 5th Street will occur at the following intersections:



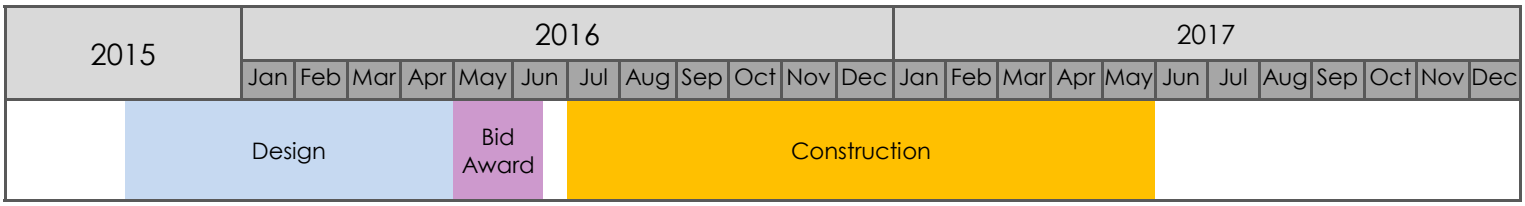
1. **NE 5th Street & NE Adams Street:** New traffic signal with signalized cross-walks will improve traffic flow and pedestrian safety. Reconstructed ramps at all four corners will improve pedestrian access and be compliant to the Americans with Disabilities Act (ADA).
2. **NE 5th Street & NE Baker Street:** New traffic signal with signalized cross-walks will improve traffic flow and pedestrian safety. Reconstructed ADA compliant ramps at all four corners will improve pedestrian access.
3. **NE 5th Street & NE Davis Street:** Curb extensions, ADA compliant ramps, and drainage improvements at all four corners will reduce the crossing distance and improve pedestrian safety.
4. **NE 5th Street and NE Evans Street:** New traffic signal with signalized cross-walks will improve traffic flow and pedestrian safety. Reconstructed ADA compliant ramps at all four corners will improve pedestrian access.
5. **NE 5th Street and NE Ford Street:** Curb extensions, ADA compliant ramps, and drainage improvements at two corners will reduce the crossing distance and improve pedestrian safety.
6. **NE 5th Street & NE Galloway Street:** ADA ramp upgrades will improve pedestrian access.
7. **NE 5th Street & NE Irvine Street:** Curb extensions, ADA compliant ramps, and drainage improvements at two corners will reduce the crossing distance and improve pedestrian safety.
8. **NE 5th Street & NE Lafayette Avenue:** New traffic signal with signalized cross-walks will improve traffic flow and pedestrian safety. Reconstructed ADA compliant ramps at three corners will improve pedestrian access.
9. **NE 5th Street from NE Evans Street to NE Lafayette Avenue:** Reconstruction of the existing roadway surface to improve smoothness and extend pavement life.

CONSTRUCTION IMPACTS

Construction along NE 5th Street between NE Adams Street and NE Lafayette Avenue will periodically affect road users at various times. Signed detour routes will be in place for motorists during street closures. Anticipated impacts may include:

- Night-time lane closures along 5th Street at NE Adams and NE Baker
- Day-time shoulder closures along 5th Street at NE Adams and NE Baker
- Day-time lane and shoulder closures along NE 5th Street at NE Davis, NE Evans, NE Ford Street, NE Galloway Street, NE Irvine Street, and NE Lafayette Avenue
- Pedestrian detours along NE 5th Street at all eight intersections

PROJECT SCHEDULE



FOR MORE INFORMATION

Visit the Website at www.McMinnvilleTransportationBond.org

or contact:

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Phone: 503.434.7312

ATTACHMENT C

City of McMinnville
Third Street Streetscape Plan

Seder Architects pc

December 2005

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Project Team

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Streetscape Committee Member

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Project Description

McMinnville, OR

The downtown district of the City of McMinnville, Oregon is an urban revitalization success story that has drawn wide attention. Within the past decade, downtown McMinnville has transitioned from having a much under-utilized set of historic and other structures, to a bustling and vibrant mixture of local business and visitor-serving establishments. Many eateries, galleries and movie theatre mix with a number of office and service profession uses as well as some housing, to create extended activity and a draw to visitors, particularly tying into the Oregon Wine Country mystique.

Downtown Character

Streets and streetscapes within the downtown core, feature a varied set of streetscape elements. There are at least four different and non-complementary light fixtures on Third Street alone. Several variations in trash receptacles, the usual array of newspaper and periodical stands, as well as different and clashing paving patterns are also present. Drainage difficulties due to multiple asphalt overlays also are in need of improvement.

Downtown McMinnville is characterized by its lush and plentiful street trees. The downtown has a variety of street trees, but particularly on Third Street, these trees are of a variety of appropriate and non-appropriate species, at several stages of maturity including over-mature, and in some cases, awkwardly located.

Mid-block shelters at mid-block crossings are a somewhat unique and distinctive feature of downtown McMinnville. However, these shelters now are viewed as somewhat heavy in feel, with large timbers and wood shake roofs perhaps being overly structured and too rustic for downtown McMinnville as viewed from the current perspective. These shelters have also become repositories for street utility panels and lighting controls, further cluttering their appearance.

Third Street Streetscape Improvements

In 2004 Seder Architects pc was retained by the City of McMinnville, to work with the downtown Streetscape Committee, and to ultimately make recommendations for streetscape improvements on Third Street that could, in fact, become standards for all downtown streetscapes. Within the downtown length of Third Street, a "Test Block" was identified for streetscape improvement construction and evaluation. The test block is between and including the intersections of Third and Cowls Streets; and Third and Davis Streets. Significantly, this test block is also adjacent to the U.S. Bank plaza, an open area in the heart of downtown and on the north side of Third Street. The Plaza thus has much potential to be upgraded and transformed into a true urban active plaza, including casual lounging, small activities and events. The actual study of the U.S. Bank Plaza was outside the scope of the Third Street Streetscape Plan.

Project Description

Concepts and Approaches

Through a series of Streetscape Committee Meetings, we identified several potential concepts and approaches to the Test Block of Third. These are included in the appendix of this report. Concept options included variations on the following:

Street Tree Approach

- Options considered included a) keeping all existing trees and merely rotating in new and appropriate trees, b) removal of trees at corners and mid-block, to open these areas up for views, light and new streetlights, and c) removing trees between corners and mid-block.

Crosswalks & Streets

- Crosswalks and streets: Options considered included raised and non-raised crosswalks, and crosswalk types from painted "zebra stripes" to new hard surface. Options for alignment included straight 90 degree alignments at all locations including mid-block, and retaining the existing diagonal alignments at mid-block.

Street Lighting

- There was a strong feeling on the Streetscape Committee that the existing light type recently installed at the McMinnville Times parking lot be the standard for downtown.

Shelters at Mid-Block Crossings

- The committee all felt that the existing structures needed to be removed. Options considered were non-replacement, and replacing the existing shelters with new and more appropriately designed, "fresher" shelters.

Landscaping

- Several options were considered for additional landscaping, including raised "sit-able" planters, flush planters, movable planter tubs, and no landscaping beyond street trees.

Benches & Bike Racks

- Options were considered, but all noting the relative narrowness of downtown sidewalks and the need to keep these fairly free of permanent such installations. Locations at corners and mid-block crossings were highly preferred by the Streetscape Committee.

Trash & Newspaper Units

- Several options were considered, noting preferences of local and contracted haulers.

Sidewalk Surfacing

- Options considered included various combinations of materials including scored concrete, stamped concrete, brick masonry and unit interlocking pavers.

Project Description

Approved Recommendations

Working with the Committee, a final set of unified recommendations was established. The approved recommendations included:

Street Trees

- Removal of existing trees at selected locations on the corners of Davis and Cowls on Third, and at the mid-block crossing, to open these areas up for light, views of buildings/shops, and for separation of new street lights from high vegetation.
- Relocation of certain trees when replaced/rotated, with appropriate species where different, and better located when existing location is inappropriate.
- Gradual establishment of metal ornamental tree grates as over mature trees are rotated out and replaced with new trees.

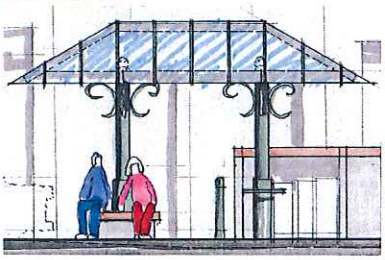
Crosswalks & Streets

- Either zebra-striped or alternately, brick paver crosswalks, including retaining the diagonal orientation of mid-block crossings.

Street Lighting

- New streetlights at diagonal corner locations and at one side of the mid-block, with arms for both additional flower baskets and irrigation tube, and for banners.
- New lit steel bollards between corners and mid-block, for fill light under street trees, supplementing new street lights.
- Steel bollards (non-lit) at street corners and mid-blocks, for traffic calming, pedestrian protection and general urban aesthetic.

Shelters



- New mid-block ornamental steel and translucent glass shelters, that are open air, covering somewhat more area than the existing, and serve as part of the night lighting of Third Street. These shelters are designed to be far lighter and more urban in appearance than the existing shelters, and to serve as night "beacons" at the mid blocks. The north to south diagonal placement of the new shelters complements the diagonal mid-block crossings, with both creating a lively rhythm to the narrow rectilinear space of Third Street.

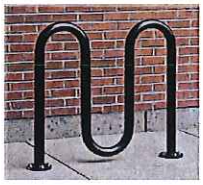
Landscaping

- Concrete planter tubs at various locations at corners and mid-blocks, to add color, greenery and variety at the pedestrian level complementing the overhead tree canopy.
- A brick planter at the mid-block on the shelter side, with raised sitting surface and irrigation.

Project Description

Approved Recommendations cont.

Benches & Bike Racks



- New benches at corners and mid-block crossings, with custom-formed similar benches surrounding selected new streetlight poles, around two of the existing traffic signal uprights and around one of the steel uprights supporting the mid-block shelter.
- A new bike rack at each corner, and at the mid-block.

Trash & Newspaper Units

- Trash receptacles to match existing new receptacles at the park plaza immediately across Highway 99 from Third Street.
- A brick newspaper and trash receptacle surround at the mid-block shelter, that will also contain utility boxes, valves and cutoffs.

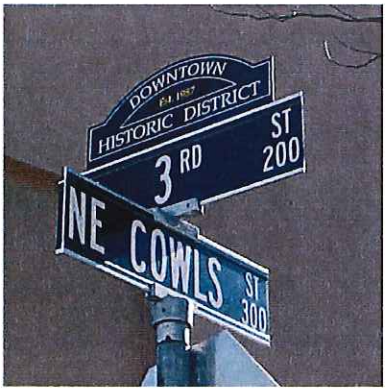
Sidewalk Surfacing

- Inlaid design(s) of the community's choosing (possible decorative or historic themes) at the center of the Davis and Cowls intersections and thus, completely drivable.
- Sidewalk surfacing including 2x2 and 4x4 scored concrete with brick edging strip with utilities accessible underneath, and brick cross-strips at locations to be determined. Cross strips would coordinate with street trees and with building entries and modulation.

Cost Planning

Seder Architects' cost planner/estimator then applied probable construction costs to the test block, both as

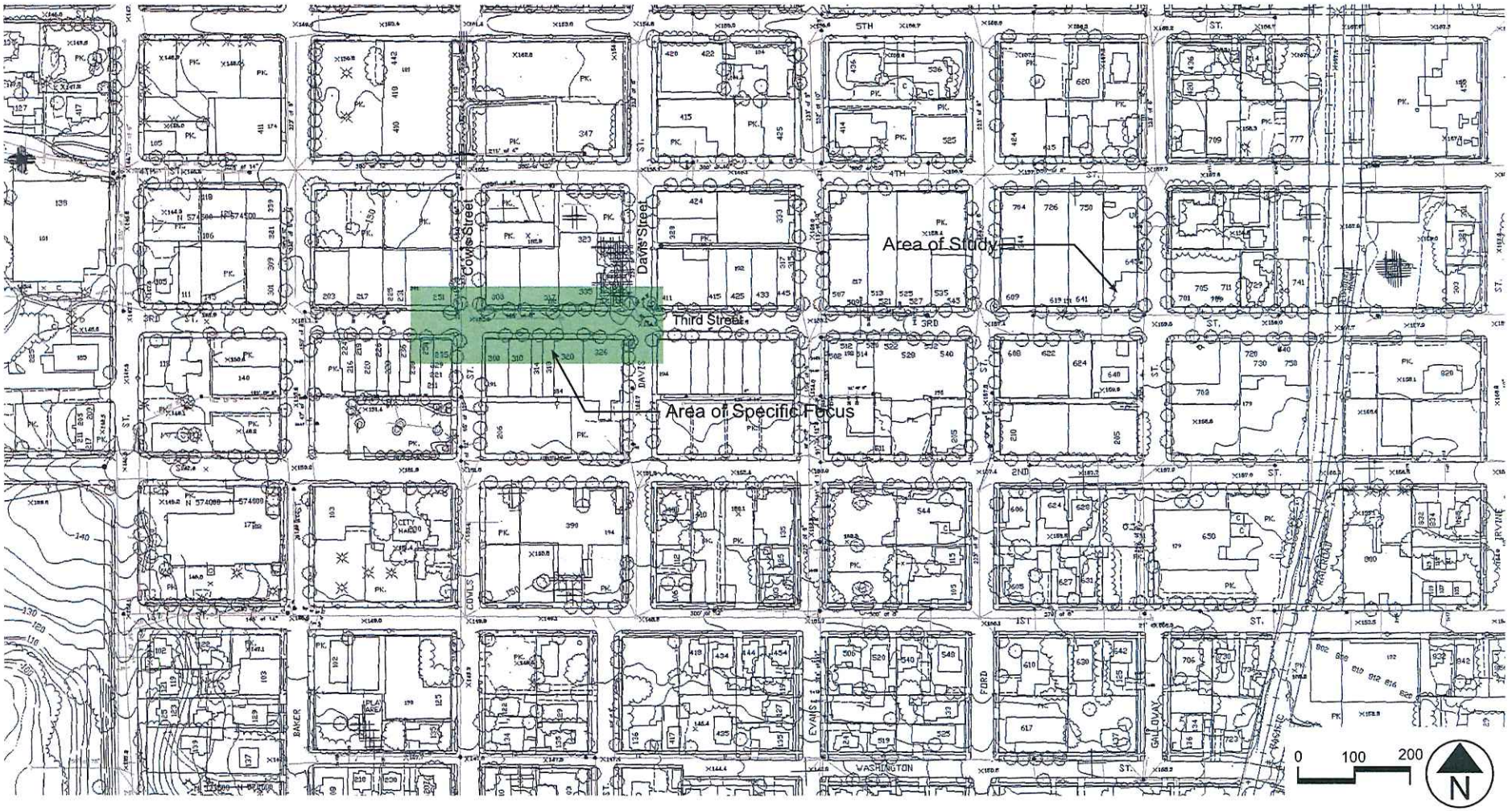
- A single and all-inclusive street and sidewalk replacement upgrade project, and
- A series of ten individual small sidewalk replacement/upgrade projects, including the eight corners and two mid-block locations.



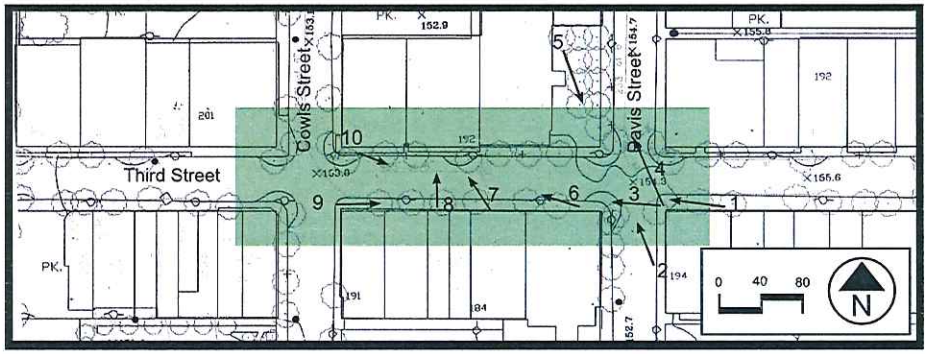
These are illustrated in this report, with total costs of all projects indicated. Cost estimate breakdowns for all projects are included in the appendix of this report. It should be noted that it may be possible to place new streetlights in certain final locations, without the other adjacent sidewalk improvements needing to be done at the same time. An original driving force behind the Third Street Streetscape Study was to identify a streetlight type and establish locations, as a first step toward phased-in and tested new streetscape work and improvements.

The McMinnville Third Street Streetscape Plan was unanimously approved by the McMinnville City Council. The Streetscape Plan scope did not include detailed design nor engineering for the actual work. Rather, the plan provides the framework, recommendations and locations of streetscape elements and an overall design that can be used to guide all subsequent work, on the Test Block, on Third Street, and throughout the downtown.

Third Street Study Area



Existing Photos



Streetscape Furnishings

Small Projects Description

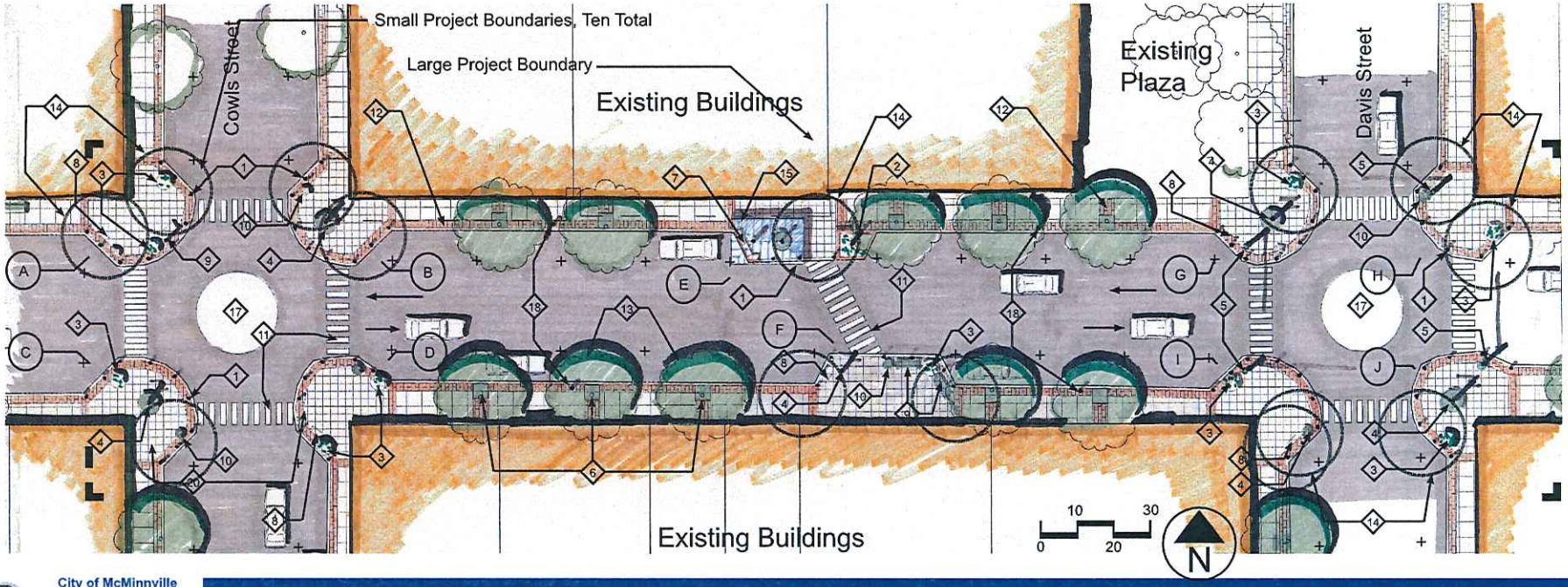
Small localized projects denoted by letters A-J are improvements that can be completed on a phased schedule. Projects require only asphalt patching at adjacent street, without street demolition and with only localized utility work.

Large Project Description

The large project encompasses all street improvements for one block including two intersections along Third Street. This includes street and sidewalk repaving as well as the implementation of new crosswalks.

Keynotes

1. Bollards at Street corners and mid-block
2. Raised Planter Bed
3. Concrete Planter Tub
4. Street Lights with custom bench surrounding and street signage to match existing downtown Historic District signage.
5. Light Signal - remove Cobra Lights above traffic signal level - repaint traffic signal exposed steel uprights and arms to match finish of other streetscape elements
6. Open tree wells at all existing trees. Replace with 48" square tree grates when trees are replanted/ rotated.
7. Newspaper and trash receptacle surround
8. Bike Parking Rack
9. Bench
10. Trash Receptacle
11. Painted Zebra Stripe Crosswalk/ alternate of brick paving with same width
12. Brick sidewalk strips, 2' wide
13. Existing Trees to remain until rotated out for new trees, typical.
14. Existing Trees removed for project
15. Mid-block Shelter
16. Custom Bench surrounding street-light, typical.
17. Drivable Street Intersection Inlaid with Decorative or Historic Theme
18. Light Bollards between corner and mid-block for fill light
19. Concrete - 4' x 4' pattern
20. Concrete - 2' x 2' pattern, typical at street corner and mid-block



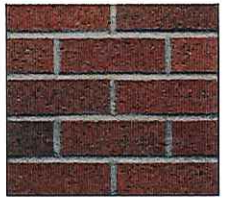
Streetscape Furnishings

Street Light
Manufacturer: Sternberg
Style: similar to installed at McMinnville News Register
Color: Park Green

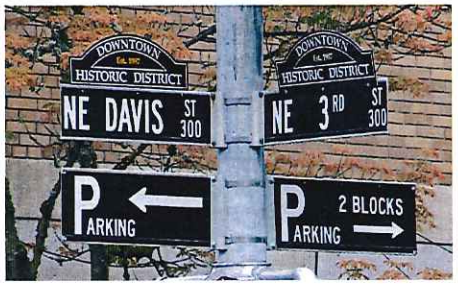
Concrete Pattern
2' x 2' and 4' x 4' grid pattern

Bike Racks
Manufacturer: Kay Park Recreation Group, Madrax or approved
Style: Loop Style Bike Rack
Color: Black or approved

Benches
Custom bench to match construction type of above only round.



Brick Accent
Color: Red Varitone
Manufacturer: Mutual Materials or approved



Bollards and Lit Bollards
Manufacturer: Sternberg
Style: Norwood
Color: Park Green

Concrete Planters
Manufacturer: Nitterhouse, Wausau,Tile, or approved
Style: 3',4', or 5' Round Planter

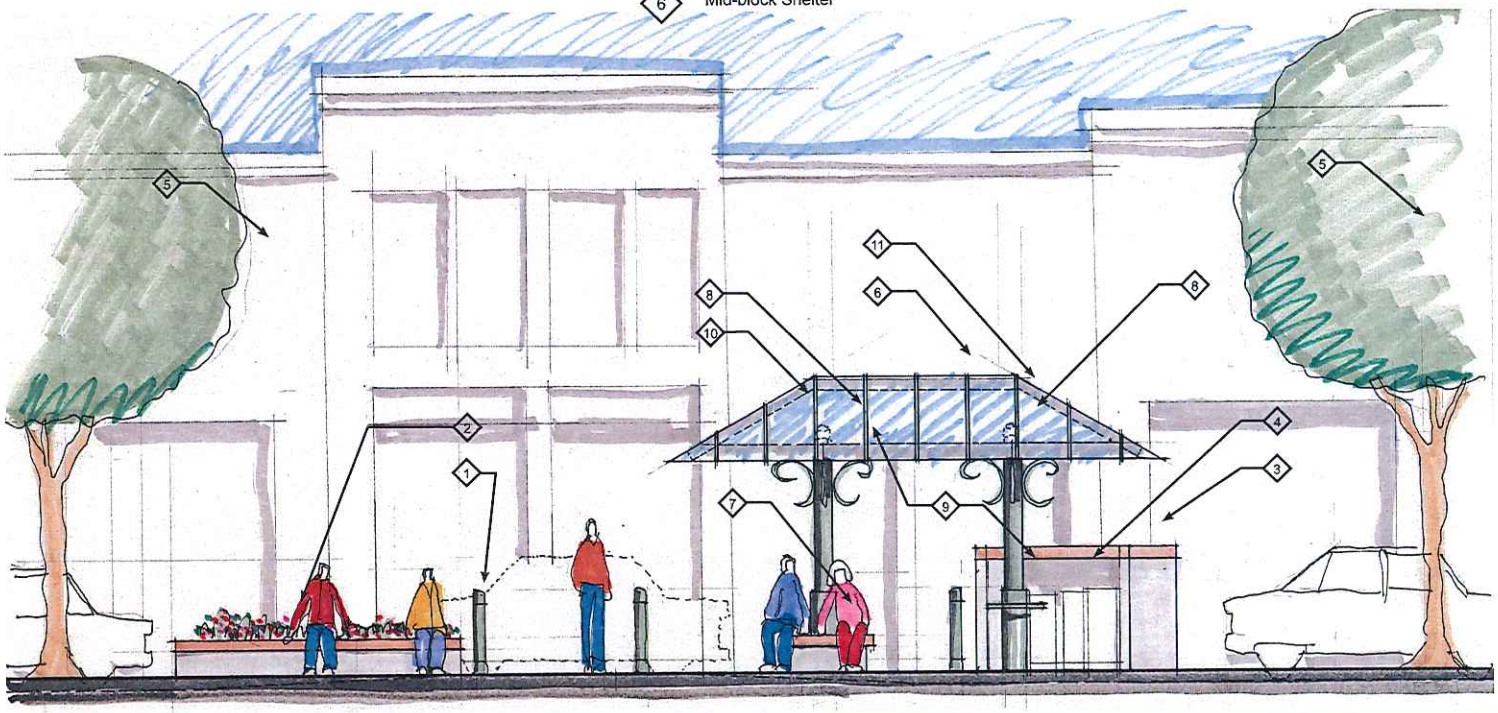
Street Signage
Historical, similar to current signage

Trash Receptacles, including recycling
Trash Receptacle similar to picture above
Recycling Receptacle Manufacturer: Windsor Barrel Works or approved

Mid-Block Elevations

Keynotes

1. Bollards at Street corners and mid-block
2. Raised Planter Bed, irrigated, concrete or block with brick cap, typ.
3. Newspaper and trash receptacle surround, concrete or block with brick cap
4. Trash Receptacles, newspaper and magazine racks, power and water controls, etc.
5. Existing Trees to remain until rotated out for new trees
6. Mid-block Shelter
7. Custom Bench around support to match streetlight custom bench
8. Luminaire
9. Painted Metal support, beams and decorative features
10. Wood Joists
11. Translucent Glass or Acrylic



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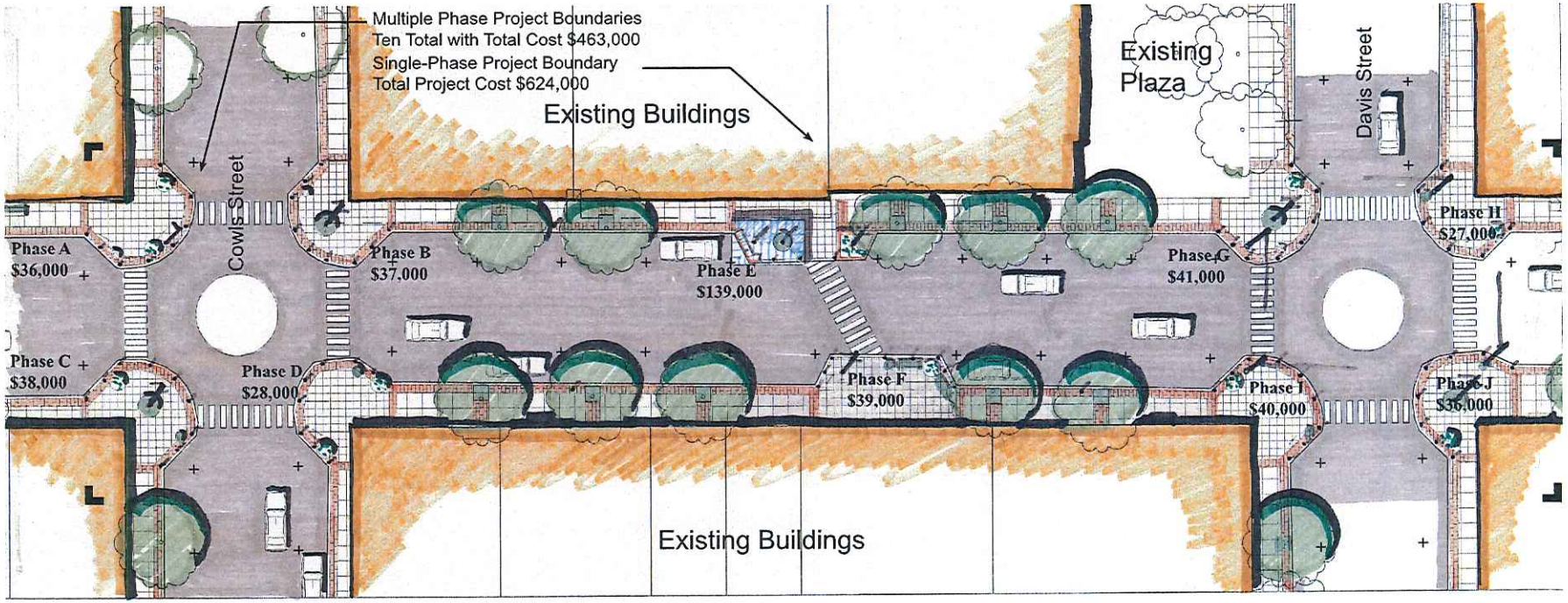
Perspective Rendering

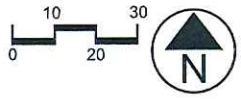
Proposed

Existing

Cost Estimate



Total Cost for Single-Phase Project: $624,000
Total Cost of Multiple-Phase Project for Total of Ten Phases: $463,000



Cost Estimate

Single-Phase Project

KEY	LOC	ITEM	DESCRIPTION	QNTY	UNIT	$/UNIT	TOTAL $
		Single-Phase Project		**30,224**	SF		
		Equipment mob	transporting equipment	**30,224**	SF	*0.15*	**4,534**
		Temp walkways	pedestrian paths/barriers	**30,224**	SF	*0.35*	**10,578**
		Traffic control	flaggers/signage	**30,224**	SF	*0.20*	**6,045**
		Survey	set pins and staking	**30,224**	SF	*0.35*	**10,578**
		Erosion control	silt fence, storm protect	**30,224**	SF	*0.08*	**2,418**
		HazMat abatement	---not included---				
		Demolition	x_planter tub	**6**	EA	*200.00*	**1,200**
		Demolition	x_trees	**23**	EA	*600.00*	**13,800**
		Demolition	x_curbs/sidewalk	**10,030**	SF	*1.70*	**17,051**
		Demolition	x_asphalt road	**19,508**	SF	*0.75*	**14,631**
		Curbs & gutters	cast-in-place_12" x 24"	**1,050**	LF	*14.00*	**14,700**
		Sidewalks	conc-4"/pattern_2'x2'	**5,358**	SF	*5.00*	**26,790**
		Sidewalks	conc-4"/pattern_4'x4'	**2,556**	SF	*4.50*	**11,502**
		Masonry	brick pavers in mortar	**2,864**	SF	*17.00*	**48,688**
		Street paving	asphalt-4"/rock-12"	**18,760**	SF	*3.50*	**65,660**
		Landscaping	topsoil/shrubs/irrigation	**686**	SF	*4.50*	**3,087**
		Benches	cast iron/wood/6' long	**4**	EA	*800.00*	**3,200**
		Bench-custom	cast iron/wood/6' long-curved	**1**	EA	*2,200.00*	**2,200**
		Tree grates	cast iron_4'x4'_conc base	**10**	EA	*1,500.00*	**15,000**
		Newspaper & trash receptacle surround		**1**	EA	*2,500.00*	**2,500**
		Mid block shelter		**250**	SF	*260.00*	**65,000**
		Raised planter bed		**80**	SF	*90.00*	**7,200**
		Concrete planter tub	size_48" rd x 31" ht	**9**	EA	*1,100.00*	**9,900**
		Bike rack	galvanized steel/3' long	**5**	EA	*350.00*	**1,750**
		Waste receptacles	steel/32gal/anchored	**10**	EA	*900.00*	**9,000**
		Crosswalk stripe	thermoplastic_12"	**600**	LF	*3.00*	**1,800**
		Intersection emblem	allowance	**2**	EA	*8,000.00*	**16,000**
		Bollards	iron/pdr coat/36" tall	**85**	EA	*400.00*	**34,000**
		Site lighting	remove Cobra arm/paint	**4**	EA	*1,500.00*	**6,000**
		Site lighting	light with custom bench	**6**	EA	*6,000*	**36,000**
		Site lighting	light bollards	**4**	EA	*1,500*	**6,000**
		Site utilities	-- not included --				

HARDCOST SUBTOTAL:		**466,812**
Contingency:	15.00%	70,022
General Requirements:	6.00%	32,210
Profit & Overhead:	8.00%	45,524
BOLI Fee and Perf Bond:	1.50%	9,219
TOTAL		**623,786**

UNIT PRICING

Tree with grate (remove existing tree, excavate, new tree, cast iron tree grate in concrete base)	**1,980**

EXCLUSIONS;

Design fees, permit fees, system development fees, utility hookup charges, testing.
Hazardous materials abatement, utility trencing or installation.

Cost Estimate

Multiple Phase Project

KEY	LOC	ITEM	DESCRIPTION	QNTY	UNIT	$/UNIT	TOTAL $
		Phase A		1,015	SF		
		Equipment mob	transporting equipment	1,015	SF	0.25	254
		Temp walkways	pedestrian paths/barriers	1,015	SF	0.60	609
		Traffic control	flaggers/signage	1,015	SF	0.25	254
		Survey	set pins and staking	1,015	SF	0.40	406
		Erosion control	silt fence, storm protect	1,015	SF	0.10	102
		HazMat abatement	---not included---				
		Demolition	x_trees	2	EA	600.00	1,200
		Demolition	x_curbs/sidewalk	410	SF	2.25	923
		Demolition	x_asphalt road	605	SF	1.20	726
		Curbs & gutters	cast-in-place_12" x 24"	70	LF	18.00	1,260
		Sidewalks	conc-4"/pattern_2'x2'	522	SF	6.50	3,393
		Masonry	brick pavers in mortar	233	SF	20.00	4,660
		Asphalt patch	4" asphalt	260	SF	5.00	1,300
		Benches	cast iron/wood/6' long	2	EA	800.00	1,600
		Concrete planter tub	size_48" rd x 31" ht	2	EA	1,100.00	2,200
		Bike rack	galvanized steel/3' long	1	EA	350.00	350
		Waste receptacles	steel/32gal/anchored	1	EA	900.00	900
		Bollards	iron/pdr coat/36" tall	9	EA	400.00	3,600
		Site utilities	-- not included --				
						HARDCOST SUBTOTAL:	23,736
			Contingency:	20.00%			4,747
			General Requirements:	8.00%			2,279
			Profit & Overhead:	15.00%			4,614
			BOLI Fee and Perf Bond:	1.50%			531
						TOTAL	35,906

KEY	LOC	ITEM	DESCRIPTION	QNTY	UNIT	$/UNIT	TOTAL $
		Phase B		916	SF		
		Equipment mob	transporting equipment	916	SF	0.25	229
		Temp walkways	pedestrian paths/barriers	916	SF	0.60	550
		Traffic control	flaggers/signage	916	SF	0.25	229
		Survey	set pins and staking	916	SF	0.40	366
		Erosion control	silt fence, storm protect	916	SF	0.10	92
		HazMat abatement	---not included---				
		Demolition	x_trees	2	EA	600.00	1,200
		Demolition	x_curbs/sidewalk	410	SF	2.25	923
		Demolition	x_asphalt road	506	SF	1.20	607
		Curbs & gutters	cast-in-place_12" x 24"	68	LF	18.00	1,224
		Sidewalks	conc-4"/pattern_2'x2'	440	SF	6.50	2,860
		Masonry	brick pavers in mortar	220	SF	20.00	4,400
		Asphalt patch	4" asphalt	256	SF	5.00	1,280
		Waste receptacles	steel/32gal/anchored	1	EA	900.00	900
		Bollards	iron/pdr coat/36" tall	9	EA	400.00	3,600
		Site utilities	-- not included --				
		Site lighting	light with custom bench	1	EA	6,000	6,000
						HARDCOST SUBTOTAL:	24,459
			Contingency:	20.00%			4,892
			General Requirements:	8.00%			2,348
			Profit & Overhead:	15.00%			4,755
			BOLI Fee and Perf Bond:	1.50%			547
						TOTAL	37,001

Cost Estimate

Multiple Phase Project

KEY	LOC	ITEM	DESCRIPTION	QNTY	UNIT	$/UNIT	TOTAL $
		Phase C		1,020	SF		
		Equipment mob	transporting equipment	1,020	SF	*0.25*	255
		Temp walkways	pedestrian paths/barriers	1,020	SF	*0.60*	612
		Traffic control	flaggers/signage	1,020	SF	*0.25*	255
		Survey	set pins and staking	1,020	SF	*0.40*	408
		Erosion control	silt fence, storm protect	1,020	SF	*0.10*	102
		HazMat abatement	---not included---				
		Demolition	x_trees	1	EA	*600.00*	600
		Demolition	x_curbs/sidewalk	410	SF	*2.25*	923
		Demolition	x_asphalt road	610	SF	*1.20*	732
		Curbs & gutters	cast-in-place_12" x 24"	68	LF	*18.00*	1,224
		Sidewalks	conc-4"/pattern_2'x2'	546	SF	*6.50*	3,549
		Masonry	brick pavers in mortar	184	SF	*20.00*	3,680
		Asphalt patch	4" asphalt	290	SF	*5.00*	1,450
		Concrete planter tub	size_48" rd x 31" ht	1	EA	*1,100.00*	1,100
		Waste receptacles	steel/32gal/anchored	1	EA	*900.00*	900
		Bollards	iron/pdr coat/36" tall	9	EA	*400.00*	3,600
		Site utilities	-- not included --				
		Site lighting	light with custom bench	1	EA	*6,000*	6,000
						HARDCOST SUBTOTAL:	25,390
			Contingency:	20.00%			5,078
			General Requirements:	8.00%			2,437
			Profit & Overhead:	15.00%			4,936
			BOLI Fee and Perf Bond:	1.50%			568
						TOTAL	**38,408**

KEY	LOC	ITEM	DESCRIPTION	QNTY	UNIT	$/UNIT	TOTAL $
		Phase D		890	SF		
		Equipment mob	transporting equipment	890	SF	*0.25*	223
		Temp walkways	pedestrian paths/barriers	890	SF	*0.60*	534
		Traffic control	flaggers/signage	890	SF	*0.25*	223
		Survey	set pins and staking	890	SF	*0.40*	356
		Erosion control	silt fence, storm protect	890	SF	*0.10*	89
		HazMat abatement	---not included---				
		Demolition	x_curbs/sidewalk	410	SF	*2.25*	923
		Demolition	x_asphalt road	480	SF	*1.20*	576
		Curbs & gutters	cast-in-place_12" x 24"	64	LF	*18.00*	1,152
		Sidewalks	conc-4"/pattern_2'x2'	428	SF	*6.50*	2,782
		Masonry	brick pavers in mortar	168	SF	*20.00*	3,360
		Asphalt patch	4" asphalt	294	SF	*5.00*	1,470
		Concrete planter tub	size_48" rd x 31" ht	2	EA	*1,100.00*	2,200
		Bike rack	galvanized steel/3' long	1	EA	*350.00*	350
		Waste receptacles	steel/32gal/anchored	1	EA	*900.00*	900
		Bollards	iron/pdr coat/36" tall	9	EA	*400.00*	3,600
		Site utilities	-- not included --				
						HARDCOST SUBTOTAL:	18,737
			Contingency:	20.00%			3,747
			General Requirements:	8.00%			1,799
			Profit & Overhead:	15.00%			3,642
			BOLI Fee and Perf Bond:	1.50%			419
						TOTAL	**28,344**

Cost Estimate

Multiple Phase Project

KEY	LOC	ITEM	DESCRIPTION	QNTY	UNIT	$/UNIT	TOTAL $
		Phase E		1,044	SF		
		Equipment mob	transporting equipment	1,044	SF	0.25	261
		Temp walkways	pedestrian paths/barriers	1,044	SF	0.60	626
		Traffic control	flaggers/signage	1,044	SF	0.25	261
		Survey	set pins and staking	1,044	SF	0.40	418
		Erosion control	silt fence, storm protect	1,044	SF	0.10	104
		HazMat abatement	---not included---				
		Demolition	x_trees	2	EA	600.00	1,200
		Demolition	x_curbs/sidewalk	450	SF	2.25	1,013
		Demolition	x_asphalt road	594	SF	1.20	713
		Curbs & gutters	cast-in-place_12" x 24"	66	LF	18.00	1,188
		Sidewalks	conc-4"/pattern_2'x2'	610	SF	6.50	3,965
		Masonry	brick pavers in mortar	204	SF	20.00	4,080
		Asphalt patch	4" asphalt	230	SF	5.00	1,150
		Newspaper & trash receptacle surround		1	EA	2,500.00	2,500
		Mid block shelter		250	SF	260.00	65,000
		Raised planter bed		80	SF	90.00	7,200
		Waste receptacles	steel/32gal/anchored	1	EA	900.00	900
		Bollards	iron/pdr coat/36" tall	4	EA	400.00	1,600
		Site utilities	-- not included --				
						HARDCOST SUBTOTAL:	**92,179**
			Contingency:	20.00%			18,436
			General Requirements:	8.00%			8,849
			Profit & Overhead:	15.00%			17,920
			BOLI Fee and Perf Bond:	1.50%			2,061
						TOTAL	**139,444**

KEY	LOC	ITEM	DESCRIPTION	QNTY	UNIT	$/UNIT	TOTAL $
		Phase F		1,030	SF		
		Equipment mob	transporting equipment	1,030	SF	0.25	258
		Temp walkways	pedestrian paths/barriers	1,030	SF	0.60	618
		Traffic control	flaggers/signage	1,030	SF	0.25	258
		Survey	set pins and staking	1,030	SF	0.40	412
		Erosion control	silt fence, storm protect	1,030	SF	0.10	103
		HazMat abatement	---not included---				
		Demolition	x_trees	1	EA	600.00	600
		Demolition	x_curbs/sidewalk	432	SF	2.25	972
		Demolition	x_asphalt road	598	SF	1.20	718
		Curbs & gutters	cast-in-place_12" x 24"	58	LF	18.00	1,044
		Sidewalks	conc-4"/pattern_2'x2'	740	SF	6.50	4,810
		Masonry	brick pavers in mortar	64	SF	20.00	1,280
		Asphalt patch	4" asphalt	226	SF	5.00	1,130
		Benches	cast iron/wood/6' long	2	EA	800.00	1,600
		Concrete planter tub	size_48" rd x 31" ht	1	EA	1,100.00	1,100
		Bike rack	galvanized steel/3' long	1	EA	350.00	350
		Waste receptacles	steel/32gal/anchored	1	EA	900.00	900
		Bollards	iron/pdr coat/36" tall	9	EA	400.00	3,600
		Site utilities	-- not included --				
		Site lighting	light with custom bench	1	EA	6,000	6,000
						HARDCOST SUBTOTAL:	**25,752**
			Contingency:	20.00%			5,150
			General Requirements:	8.00%			2,472
			Profit & Overhead:	15.00%			5,006
			BOLI Fee and Perf Bond:	1.50%			576
						TOTAL	**38,956**

Cost Estimate

Multiple Phase Project

KEY	LOC	ITEM	DESCRIPTION	QNTY	UNIT	$/UNIT	TOTAL $
		Phase G		972	SF		
		Equipment mob	transporting equipment	972	SF	0.25	243
		Temp walkways	pedestrian paths/barriers	972	SF	0.60	583
		Traffic control	flaggers/signage	972	SF	0.25	243
		Survey	set pins and staking	972	SF	0.40	389
		Erosion control	silt fence, storm protect	972	SF	0.10	97
		HazMat abatement	---not included---				
		Demolition	x_trees	1	EA	600.00	600
		Demolition	x_curbs/sidewalk	410	SF	2.25	923
		Demolition	x_asphalt road	562	SF	1.20	674
		Curbs & gutters	cast-in-place_12" x 24"	68	LF	18.00	1,224
		Sidewalks	conc-4"/pattern_2'x2'	494	SF	6.50	3,211
		Masonry	brick pavers in mortar	208	SF	20.00	4,160
		Asphalt patch	4" asphalt	270	SF	5.00	1,350
		Concrete planter tub	size_48" rd x 31" ht	1	EA	1,100.00	1,100
		Bike rack	galvanized steel/3' long	1	EA	350.00	350
		Waste receptacles	steel/32gal/anchored	1	EA	900.00	900
		Bollards	iron/pdr coat/36" tall	9	EA	400.00	3,600
		Site lighting	remove Cobra arm/paint	1	EA	1,500.00	1,500
		Site utilities	-- not included --				
		Site lighting	light with custom bench	1	EA	6,000	6,000
						HARDCOST SUBTOTAL:	27,147
			Contingency:	20.00%			5,429
			General Requirements:	8.00%			2,606
			Profit & Overhead:	15.00%			5,277
			BOLI Fee and Perf Bond:	1.50%			607
						TOTAL	**41,067**

KEY	LOC	ITEM	DESCRIPTION	QNTY	UNIT	$/UNIT	TOTAL $
		Phase H		896	SF		
		Equipment mob	transporting equipment	896	SF	0.25	224
		Temp walkways	pedestrian paths/barriers	896	SF	0.60	538
		Traffic control	flaggers/signage	896	SF	0.25	224
		Survey	set pins and staking	896	SF	0.40	358
		Erosion control	silt fence, storm protect	896	SF	0.10	90
		HazMat abatement	---not included---				
		Demolition	x_trees	2	EA	600.00	1,200
		Demolition	x_curbs/sidewalk	410	SF	2.25	923
		Demolition	x_asphalt road	486	SF	1.20	583
		Curbs & gutters	cast-in-place_12" x 24"	62	LF	18.00	1,116
		Sidewalks	conc-4"/pattern_2'x2'	390	SF	6.50	2,535
		Masonry	brick pavers in mortar	78	SF	20.00	1,560
		Asphalt patch	4" asphalt	322	SF	5.00	1,610
		Concrete planter tub	size_48" rd x 31" ht	1	EA	1,100.00	1,100
		Waste receptacles	steel/32gal/anchored	1	EA	900.00	900
		Bollards	iron/pdr coat/36" tall	9	EA	400.00	3,600
		Site lighting	remove Cobra arm/paint	1	EA	1,500.00	1,500
		Site utilities	-- not included --				
						HARDCOST SUBTOTAL:	18,060
			Contingency:	20.00%			3,612
			General Requirements:	8.00%			1,734
			Profit & Overhead:	15.00%			3,511
			BOLI Fee and Perf Bond:	1.50%			404
						TOTAL	**27,321**

Cost Estimate

Multiple Phase Project

KEY	LOC	ITEM	DESCRIPTION	QNTY	UNIT	$/UNIT	TOTAL $
		Phase I		974	SF		
		Equipment mob	transporting equipment	974	SF	*0.25*	244
		Temp walkways	pedestrian paths/barriers	974	SF	*0.60*	584
		Traffic control	flaggers/signage	974	SF	*0.25*	244
		Survey	set pins and staking	974	SF	*0.40*	390
		Erosion control	silt fence, storm protect	974	SF	*0.10*	97
		HazMat abatement	---not included---				
		Demolition	x_trees	1	EA	*600.00*	600
		Demolition	x_curbs/sidewalk	410	SF	*2.25*	923
		Demolition	x_asphalt road	564	SF	*1.20*	677
		Curbs & gutters	cast-in-place_12" x 24"	68	LF	*18.00*	1,224
		Sidewalks	conc-4"/pattern_2'x2'	520	SF	*6.50*	3,380
		Masonry	brick pavers in mortar	179	SF	*20.00*	3,580
		Asphalt patch	4" asphalt	275	SF	*5.00*	1,375
		Concrete planter tub	size_48" rd x 31" ht	1	EA	*1,100.00*	1,100
		Bike rack	galvanized steel/3' long	1	EA	*350.00*	350
		Waste receptacles	steel/32gal/anchored	1	EA	*900.00*	900
		Bollards	iron/pdr coat/36" tall	9	EA	*400.00*	3,600
		Site lighting	remove Cobra arm/paint	1	EA	*1,500.00*	1,500
		Site utilities	-- not included --				
		Site lighting	light with custom bench	1	EA	*6,000*	6,000
						HARDCOST SUBTOTAL:	26,767
			Contingency:	20.00%			5,353
			General Requirements:	8.00%			2,570
			Profit & Overhead:	15.00%			5,203
			BOLI Fee and Perf Bond:	1.50%			598
						TOTAL	40,491

KEY	LOC	ITEM	DESCRIPTION	QNTY	UNIT	$/UNIT	TOTAL $
		Phase J		854	SF		
		Equipment mob	transporting equipment	854	SF	*0.25*	214
		Temp walkways	pedestrian paths/barriers	854	SF	*0.60*	512
		Traffic control	flaggers/signage	854	SF	*0.25*	214
		Survey	set pins and staking	854	SF	*0.40*	342
		Erosion control	silt fence, storm protect	854	SF	*0.10*	85
		HazMat abatement	---not included---				
		Demolition	x_trees	1	EA	*600.00*	600
		Demolition	x_planter tub	1	EA	*200.00*	200
		Demolition	x_curbs/sidewalk	410	SF	*2.25*	923
		Demolition	x_asphalt road	444	SF	*1.20*	533
		Curbs & gutters	cast-in-place_12" x 24"	64	LF	*18.00*	1,152
		Sidewalks	conc-4"/pattern_2'x2'	516	SF	*6.50*	3,354
		Masonry	brick pavers in mortar	128	SF	*20.00*	2,560
		Asphalt patch	4" asphalt	210	SF	*5.00*	1,050
		Waste receptacles	steel/32gal/anchored	1	EA	*900.00*	900
		Bollards	iron/pdr coat/36" tall	9	EA	*400.00*	3,600
		Site lighting	remove Cobra arm/paint	1	EA	*1,500.00*	1,500
		Site utilities	-- not included --				
		Site lighting	light with custom bench	1	EA	*6,000*	6,000
						HARDCOST SUBTOTAL:	23,738
			Contingency:	20.00%			4,748
			General Requirements:	8.00%			2,279
			Profit & Overhead:	15.00%			4,615
			BOLI Fee and Perf Bond:	1.50%			531
						TOTAL	35,909

MULTIPLE PHASES TOTAL: 462,847

MCMINNVILLE URBAN RENEWAL FINANCIAL FORECAST

ATTACHMENT D

Fiscal Year	Revenue	Non-Project Related M&S	Grants	Debt Service City Loan	Debt Service Alpine Ave Loan	Net Funds Available	Fund Balance
2015	82,212	-	-	(5,000)	-	77,212	77,212
2016	118,465	(14,728)	(5,400)	(5,000)	-	93,337	170,549
2017	141,262	(32,330)	(10,000)	(10,000)		88,932	259,481
2018	172,294	(38,200)	-	(10,000)	(90,000)	34,094	293,575
2019	241,765	(40,900)	-	-	(143,000)	57,865	351,440
2020	314,448	(43,800)		-	(188,000)	82,648	434,088
2021	390,473	(46,900)	-	-	(188,000)	155,573	589,661
2022	469,975	(50,300)		-	(188,000)	231,675	821,337
2023	553,094	(53,800)	-	-	(188,000)	311,294	1,132,631
2024	639,975	(57,700)		-	(188,000)	394,275	1,526,906
2025	730,767	(61,800)	-	-	(188,000)	480,967	2,007,873
2026	825,628	(66,200)		-	(188,000)	571,428	2,579,301
2027	924,721	(70,900)	-	-	(188,000)	665,821	3,245,122
2028	1,028,213	(75,900)		-	(188,000)	764,313	4,009,435
2029	1,136,281	(81,400)		-	(188,000)	866,881	4,876,316
2030	1,249,108	(87,200)		-	(188,000)	973,908	5,850,224
2031	1,324,008	(93,400)		-	(188,000)	1,042,608	6,892,831
2032	1,401,559	(100,000)		-	(188,000)	1,113,559	8,006,390
	11,744,248	(1,015,458)	(15,400)	(30,000)	(2,677,000)	8,006,390	43,124,371

NOTES:

-- 2017 #s are budgeted amounts

-- Revenue reflects TIF calculations from ECONorthwest report dated 6/22/2016

-- Non-Project Related costs = "Administration" amounts from UR Plan Table 15

-- Alpine Avenue loan debt service based on 15 year repayment with a five year prepayment option at 2.04% annual interest rate.

-- Assumes all construction costs and financing fees are paid from bond/loan proceeds

-- Alpine Ave loan debt service includes pay off of City loan for Alpine Ave design ($163K)

ATTACHMENT E

CITY OF REDMOND, OREGON
Economic Development Department

2012 Downtown Parking Inventory and Utilization Study
Downtown Parking Zone – Redmond, Oregon
FINAL REPORT

Prepared for:

City of Redmond
City of Redmond
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October 2012

Table of Contents

2012 Downtown Parking Inventory and Utilization Study

This Technical Memorandum summarizes the findings of the Redmond Downtown Parking Study, which evaluated parking activity within the public supply of parking in downtown Redmond, Oregon. This work updates a similar analysis conducted by the City in May 2006.[1]

I. BACKGROUND

The City of Redmond is interested in developing a clear and objective understanding of the dynamics of use within the public parking supply in the downtown. Usage data related to occupancy, turnover, duration of stay and hourly patterns of activity represent industry "best practices" metrics for evaluating parking supplies, both on and off-street. This type of data can assist the City in near-term decision-making relative to existing parking supplies; as a means to understand where parking constraints and surpluses exist, and whether factors such as abuse of time limits is an issue that might adversely affect access. Similarly, this type of data will aid in longer-term city planning related to parking need for future development activity; providing insight into such issues such as shared parking opportunities and/or future absorption related to planned and future development.

II. ELEMENTS OF THE PARKING INVENTORY ANALYSIS

The purpose of a parking utilization study is to derive a comprehensive and detailed understanding of actual use dynamics and access characteristics associated with parking in the downtown. Important elements of the analysis include:

(1) Development of a data template for all parking in the study area, denoting all parking stalls, by time stay type, for on and off-street facilities in public control.
(2) A complete survey of parking use on a "typical day" -- a single Thursday on September 27, 2012.[2]
(3) Analysis of parking utilization and turnover that included:

   a. Quantification of total study area parking inventory.
   b. Hourly occupancy counts (8 AM – 6 PM) for on and off-street inventory.
   c. Parking turnover analysis (on-street).
   d. Parking duration of stay analysis (on-street).

(4) Identification of parking surpluses and constraints in the parking supply.

[1] See: *Downtown Parking Management Plan (May 2006), David Evans and Associates*
[2] This date was chosen in consultation with the City of Redmond.

In short, the purpose of the parking utilization study was to produce a succinct analysis of existing parking dynamics in Downtown Redmond that can be employed over time to support and inform decision-making related to development and parking.

III. STUDY AREA

The parking inventory study area was determined in the initial project scoping process and in consultation with the City of Redmond. The study zone represents the downtown core. The study area is generally bounded by SW Black Butte Blvd. on the north, SW Glacier Avenue on the west, SW 9th Street on the west and SW 4th Street on the east. **Figure A** (page 3) illustrates the study area examined during the data collection process; the boundary is the shaded area.

Figure A
Downtown Parking Study Area

IV. METHODOLOGY

The consultant team was able to inventory all on and off-street parking in the study zone. In total, there are 1,778 stalls within the study area. Our approach for each type of supply (on or off-street) is described below.

On-Street Supply

The project team's methodological approach to gathering parking utilization/capacity/turnover data began with a physical compilation of all public on-street parking assets within the study area. This assessment was conducted in advance of the survey day. All on-street stalls were identified by type of stall (i.e., time or use restriction), block number and block face. This information was used to create a data template necessary to conduct the capacity/utilization assessment. In total 566 on-street parking stalls are located within the study zone.

The surveys involved hourly counts of each occupied on-street parking stall in the study area, recording the first four digits of the parked vehicle's license plate. Surveyors collected license plate data at each on-street parking stall located in the study area for every hour over a ten-hour period (8:00 AM – 6:00 PM). All 566 on-street stalls were surveyed, representing a 100% sample size for the on-street inventory.

The capacity/utilization survey for the on-street supply took place on Thursday, September 27, 2012. The survey day was selected in consultation with the City of Redmond and was reflective of the initial scoping process. Overall, the survey day was mostly sunny and warm (mid 70s degrees) with light parking activity in all sectors of the downtown. No major events were scheduled for the downtown and public school was in session.

Off-street Supply

As with the on-street system, each off-street facility was identified and counted in advance of the September 27, 2012 survey day. The inventory of off-street stalls, both public and private, was categorized by block number and identified by tenant/operator. A total of 1,212 off-street stalls were documented in 90 facilities.

On the survey day, 819 of the 1,212 stalls in the off-street supply were physically surveyed in 44 facilities. This represents a sample size of 68 percent. Similar to the on-street study, each lot was surveyed for occupancy on the hour, every hour between 8:00 AM – 6:00 PM. *In selecting lots to sample, RWC also took in to account size of lot and geographic distribution of lots across the study zone to ensure a random and representative sample.*

In all, a total of 1,385 of 1,778 parking stalls were surveyed in the downtown, a combined on/off-street sample size of approximately 78%, which provides a statistically significant sample for measuring the operation, performance and activity associated with parking in downtown Redmond.

Table 1 provides a summary of the inventory sample.

Table 1
***Sampling* – Percentage of Total Parking Supply Surveyed**

On-Street Parking Inventory			
Parking Supply Categories	**Total Supply**	**Amount Surveyed**	**% of Total Supply Surveyed**
On-Street Stalls	566	566	100%
Off-Street Lots	90	44	48.9%
Off-Street Stalls	1,212	819[3]	67.6%
Total Parking Supply	**1,778**	**1,385**	**77.9%**

V. KEY DATA FINDINGS (Executive Summary)

Key findings of the data collection effort and analysis are presented here. Comprehensive documentation and data which supports these findings are found in Sections VII & VIII below. Where possible, comparison to data derived from the 2006 Parking Management Plan study is provided.

On-Street Parking

- ✓ The format of on-street parking tends to favor long-term parking. This may not be the ideal format in the future as efforts to grow/expand ground level retail/restaurant/visitor activity are pursued.

- ✓ The peak hour is between noon and 1:00 PM when 36.6% of all stalls are occupied. As such, 207 on-street stalls are occupied leaving 359 empty stalls available within the downtown. In 2006, the peak hour was the same, with occupancies reaching 45%[4].

- ✓ The average time stay for all on-street parkers is 2 hours and 7 minutes.

- ✓ In the highest use node (SW 6th Street between Forest Avenue and Deschutes Avenue and Forest, Evergreen and Deschutes Avenues) 84.4% of spaces were occupied during the peak hour.

[3] There are an additional 393 off-street stalls located on 46 surface lots that were not part of the surveyed sample. These lots were deliberately excluded from the sample for a few reasons, their proximity to adjacent lots of similar size already in the sample, their type of use (e.g., auto parts store, service station) and budgetary prudence.
[4] For comparison purposes the 2006 on-street parking occupancies may appear 'inflated' due to the omission of block face occupancies between SW 8th and 9th Streets. During the 2012 study these blocks exhibited a very low level of parking activity which likely reduced the overall occupancy numbers for the larger study area.

Of these spaces, 28% were occupied by vehicles parked for more than two hours and 17% were occupied by vehicles parked for more than three hours.

- ✓ On-street turnover (4.72) falls slightly below the benchmark standard (5.0) for a parking system designed to support high activity ground level land uses.

- ✓ Parking is generally available on-street throughout the day, with pockets of high occupancy along SW 6th Avenue between SW Forest and SW Deschutes and on Evergreen Avenue between 5th and 7th Streets and along 7th Street between SW Forest and SW Deschutes Avenue.

Off-Street Parking

- ✓ The overall occupancy of the off-street system within the downtown study area is 48.2% at the peak hour of 1:00 – 2:00 PM. In 2006, the peak hour was 10:00 – 11:00 AM , with peak occupancy also reaching 48%.

- ✓ The combined off-street system is underutilized, having an abundance of available parking, totaling 395 stalls during the peak hour (sampled) or 628 stalls (extrapolated).

- ✓ The majority of available supply is in private ownership which in some cases reduces the ease with which downtown shoppers can access the parking system. Partnerships with private owners to better manage underutilized off-street parking(e.g., shared use agreements) could result in a more efficient and customer friendly parking system

VI. GENERAL CHARACTERISTICS OF THE INVENTORY - STUDY AREA

A. Supply: On-street parking

A total of **566** on-street parking stalls were surveyed within the study area boundaries. Parking in the public supply is provided in the form of free parking. **Table 2** presents a breakout of all the on-street parking surveyed in the Downtown Study Zone.

As **Table 2** summarizes:

- The majority of on-street stalls (97.3% or 551 spaces) are “no limit” stalls, which allow unlimited parking for users in the downtown.
- The remainder is formatted as 2-Hour time limited stalls (2.5% or 14 stalls) or 15-minute parking (<1% or 1 stall).

Table 2
2012 Downtown Parking Inventory: On-street

Redmond Parking Stall Breakout		
On-Street Parking Inventory		
Stalls by Type	**Number of Stalls**	**% of Total Stalls**
15 minutes	1	<1%
2 hours	14	2.5%
No Limit	551	97.3%
TOTAL: On-Street Stalls	**566**	**100%**

This is a high mix of unlimited parking for a downtown on-street system, which is generally targeted for short-term, visitor access. However, *as occupancy data will suggest (see Section VII), the high number of long-term, "no-limit" stalls does not appear to create access constraints within the on-street system*. In the future, as demand for parking increases, the number of "no-limit" stalls will need to be consistently monitored for occupancy and turnover and be adjusted as necessary to assure visitor access is accommodated.

B. Supply: Off-street parking

A total of **1,212** off-street parking stalls were identified during the inventory. These stalls are located on 90 separate sites in the downtown (within the study area boundary). Of this total 44 sites were selected for survey on September 27. Parking in the off-street supply is provided in the form of free parking and none of the parking is time limited. All lots in the downtown are modest in size – ranging from just 3 stalls (e.g., SW Black Butte Blvd between SW 4th and SW 5th) to 76 stalls (e.g., City Hall). As previously stated, a total of 819 *off-street* stalls were surveyed in 44 facilities.

- Within the total off-street supply, there are 172 stalls that are generally available to the public and/or in City control. These stalls are distributed across 3 sites. This represents just 9.7% of the off-street supply. These sites include:

  + City Hall (76 stalls)
  + Library (69 stalls)
  + Lot 47 – SW 5th between Forest and Evergreen (27 stalls)

- The remaining 1,040 stalls are dispersed throughout the downtown in 87 surface lots that are privately owned. This puts about 90.0%% of off-street supply in private control, which is not unusual, but means strategic opportunities for shared use agreements and managing existing supply through centralized and consolidated programming becomes more complex.

VII. CHARACTERISTICS OF THE PARKING SUPPLY – OCCUPANCY AND UTILIZATION

A. Combined Parking Supply : On and Off-street parking

When all 1,385 surveyed stalls are combined (on and off-street), the peak hour is reached between 1:00 and 2:00 PM. At that hour, 43% of the supply is occupied. Stated differently, at the peak hour the combined supply of parking serves 595 vehicles, leaving 790 stalls empty and potentially available for use.[5]

B. On-street Parking Summary – Entire study area

During the survey day, the highest peak hour for the on-street inventory in the downtown was between Noon and 1:00 PM (i.e. all stalls, all use types). At this hour, 36.6% of the 566 parking stalls in the study area are occupied. .

Table 3, below summarizes occupancies by type of stall, peak hour by stall type and average length of stay. **Figure B** provides an illustration of occupancies for each hour of the ten-hour survey day (for on and off-street parking).

From **Table 3** and the associated Figure, the following conclusions can be derived:

- During the Noon – 1:00 PM peak hour, 207 on-street stalls are occupied leaving 359 empty stalls within the downtown.
- The average duration of stay of a vehicle parked on-street during the study day is 2 hours and 7 minutes (2.12 hours). Given that the majority of on-street parking allows an unlimited duration of stay, the system is fluid and appears to be conducive to street level retail needs.[6]
- The average duration of stay in designated 2 Hour stalls was 1 hour and 27 minutes (1.45 hours).
- Parking is readily available on-street throughout the day, with some pockets of high occupancy on specific block faces, though those block faces are generally adjacent to blocks with available parking (see **Figure C** below).
- Given this pattern, it is unlikely that patrons or employees accessing the downtown cannot find a stall conveniently and within reasonable proximity to their destinations.

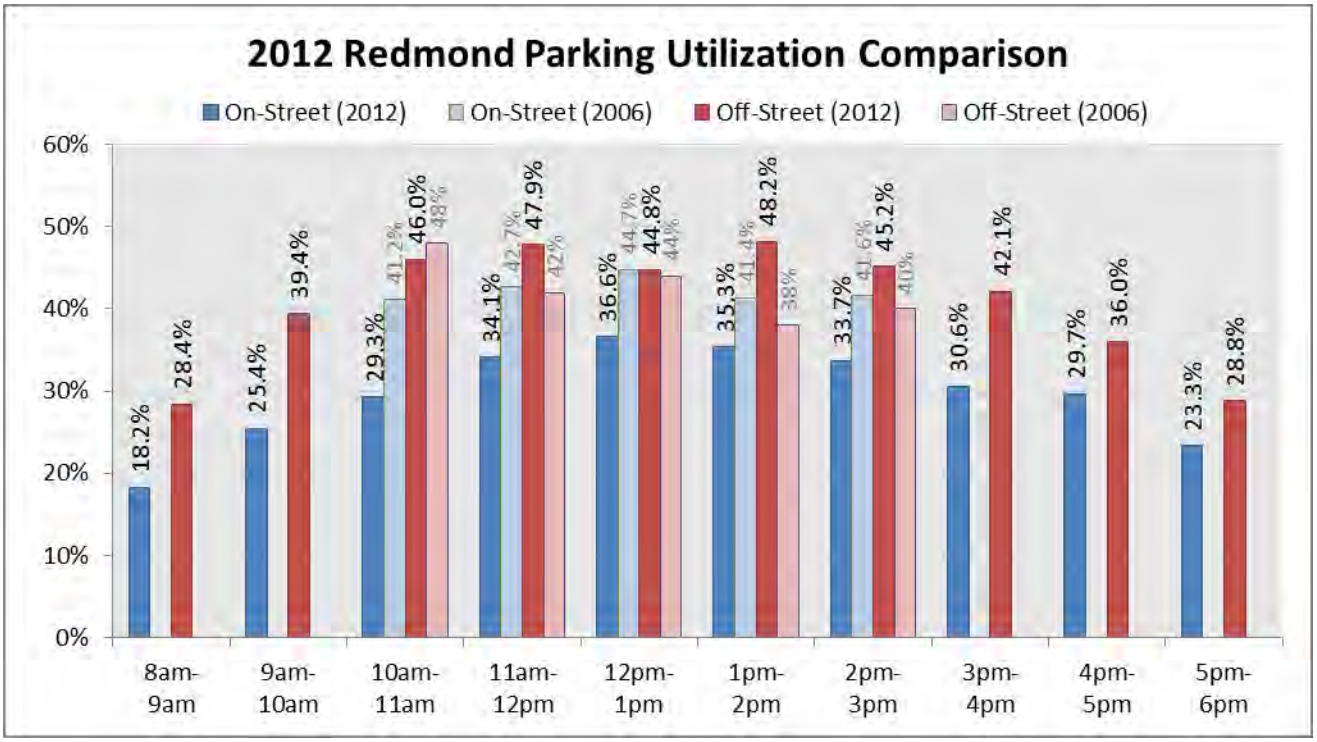
[5] We say "potentially available" given that the stalls are empty, but because they are primarily in private ownership and accessory to specific land uses. As such, they may not be available for general public use that would not be specific to the parking sites themselves.

[6] Industry standards for retail conducive parking (short-term parking) find 2 Hour time stays most supportive of general retail demand; providing an adequate and convenient time stay for a customer and supporting good turnover in the supply.

Table 3
2012 On-Street Parking Summary by Time Stay

Type of Stall	# of Stalls Surveyed	Peak Hour	Peak Occupancy	Stalls Available	Average Length of Stay	Violation Rate
All Stalls	***1,385***	***1:00 – 2:00 PM***	***43.0%***	***790***	***N/A***	***N/A***
On-Street	***566***	***12:00 – 1:00 PM***	***36.6%***	***359***	***2 hr./ 7 min***	***10.7%***
Off-Street	***819***	***1:00 – 2:00 PM***	***48.2%***	***424***	***N/A***	***N/A***
Usage by Time Stay						
15 minutes	1	11 AM – 6 PM	100%	0	N/A	16.7%
2 hours	14	2:00 – 3:00 PM	50.0%	7	1 hr./ 27 min	9.1%
No Limit	551	12:00 – 1:00 PM	36.5%	350	2 hr./ 8 min	N/A

Figure B
On-street: Summary of Hourly Utilization



C. <u>Occupancy by Block Face – On-street</u>

The central study area is comprised of approximately 25 city blocks. Within that area there are 100individual block faces. **Figure C** provides a visual summary of how on-street parking is distributed throughout the downtown in the peak hour. Block faces parked at a rate of greater than 85% occupancy (red) would be considered "constrained." Occupancies between 70% - 84%

(orange) would be moderately constrained and occupancy levels below that (yellow and green) would present themselves as providing easy and convenient access to available stalls.

Figure C
On-Street Peak Hour Occupancies (Noon – 1:00 PM peak hour)

As **Figure C** illustrates, on-street parking is fairly abundant during the peak hour. In total, 8 of 100 block faces are parked in excess of 85% (about 8% of all block faces). Conversely, 75 of 100 block faces (75%) are less than 69% occupied at the peak hour. In all, the on-street supply provides reasonable opportunities for access to users of the downtown. Any perceived parking constraint can likely be found in the area of Blocks 39, 40and 46 on the **Figure C** graphic. More specifically, the SW 6th Avenue corridor between Deschutes and SW Forest is an area that can be considered constrained (see Section XIII below for more detail).

D. On-Street: Usage Characteristics (Duration of Stay, Volume, Turnover and Exceeding Time Stays)

There are a number of ways to evaluate the efficiency of the on-street system. **Table 4** provides a summary of several measures.

Table 4
Summary of On-Street Parking Use Characteristics

	Use Characteristic	September 2012
DURATION OF STAY	***Average duration of stay per unique vehicle***	2 hour, 7 minutes
VOLUME	**Volume: Actual number of unique vehicles over 10 hour survey day**	796
	Total vehicle hours parked over 10 hour survey day	1,677
TURNOVER	**Turnover: Actual turnover rate (number of cars to use a single occupied stall over a 10 hour operating day)**	4.72
EXCEEDED TIME STAYS	**Exceeding time stays: % of vehicles violating the posted time stay**	10.7%

1. Duration of Stay

One would assume that because 97.3% of the on-street supply is made up of No Limit stalls (see **Table 2)**; the average time stay at downtown on-street spaces would be fairly long. Interestingly, the average duration of stay at downtown on-street spaces is much lower than one might anticipate. The average stay in downtown for all parking stalls is 2 hour 7 minutes (or 2.12 hours). In short, the "no-limit" time stay allowance is not reflective of actual user demand of the on-street system. Nonetheless, as mentioned earlier, the existing format of time stays does not appear to adversely impact users given the very low occupancies on-street

in all areas except the High Occupancy Node (see Section XIII below). In this area, consideration of timed signage would serve to accommodate short-term users who desire direct access to businesses on these block faces and discourage long-term employee use of the same stalls.

2. Volume

Over the course of the study day, 796 specific license plate numbers (unique vehicles) were identified parking on street. This is not a significant number of vehicles given a total supply of 566 stalls and a ten-hour operating day. At this level, the on-street system is accommodating an average of about 80 cars an hour.

3. Turnover: Efficiency of the Parking System

Many cities strive to manage their on-street parking systems to meet or exceed an intended turnover rate. For example, if the intended use for a stall is two hours, then the stall should be expected to turn 5.0 times over a ten-hour period. This is considered a minimum standard for an attractive and ground level business supportive on-street parking system. As such, if turnover were demonstrated to be at a rate of less than 5.0, the system would be deemed inefficient. A rate in excess of 5.00 would indicate a system that is operating efficiently.

In Redmond, the downtown on-street parking system has an average turnover rate of 4.72 turns per stall over a 10 hour period. This is calculated by dividing the average time stay (2.12 hours) derived from the study into a ten hour operating day. This is slightly below the 5.0 rate we consider an ideal rate of efficiency.

Table 5 provides a comparison with other Oregon and Washington cities that Rick Williams Consulting has evaluated. As listed, turnover rates range from a low of 2.87 for Springfield, OR to a high of 8.60 in Kirkland, WA. Comparatively, Redmond generally falls in the lower mid-range of surveyed cities for on-street turnover.

Table 5
On-street Turnover – Comparison to Other Cities

City	Number of On-Street Stalls	Rate of Turnover
Kirkland, WA	329	8.60
Bend, OR	720	7.60
Salem, OR	1,260	7.52
Spokane, WA	1,965	6.36
Hood River, OR	582	6.06
Milwaukie, OR	370	6.00

Vancouver, WA	654 (core)	5.68
Everett, WA	1,955	5.12
Hillsboro, OR	924	4.90
Redmond, OR	***566***	***4.72***
Lake Oswego, OR	777	4.24
Beaverton, OR	990	4.20
Redmond, WA	731	3.23
Springfield, OR	647	2.87

Current occupancies are low enough in Redmond that turnover may not yet be a factor for (a) attracting new retail businesses and (b) managing parking conflicts between short and long-term users. As the downtown economy continues to develop and diversify with small business (e.g., retail, office, services) it will be important to initiate measures that support higher turnover rates to accommodate the growing demand for parking. As stated earlier, it will be important to gradually reduce the number of No Limit stalls as occupancies increase and as a measure to facilitate turnover rates in excess of 5.0, most particularly in the central retail area. An area to begin this process (initiating 2 HR time zones) would be in the High Occupancy Node.

4. Exceeding time stays – Abuse of stalls

10.7% of the vehicles parked in 2-HR stalls exceeded the posted time stay. Currently the downtown has a two hour limit, but it is not posted. Based on average duration of stay data (i.e., 2 hours and 7 minutes) and turnover data (4.72) provided above, the overall system operates fairly efficiently with the majority of on-street stalls being No Limit. The violatin rate presented here may overstate actual "violations" given that there are only 15 timed stalls in the entire study area (one 15-minute stall and fourteen 2-HR stalls).

E. Off-street: Hourly and Peak Occupancy

The peak hour for the off -street public inventory is between 1:00 PM and 2:00 PM. At this hour, 48.2% of the 819 parking stalls in the 44 surveyed lots within the study area are occupied. **Figure B,** above, illustrates occupancies for each hour of the ten-hour survey day. **Appendix A**, attached, summarizes occupancies by hour of day in each of the 44 surveyed lots.

Key findings include:

- The combined supply is much underutilized at 48.2%. This leaves 424 empty stalls at the peak hour (see **Table 3**). If this occupancy number is extrapolated t the entire off-street

supply (1,212 stalls), there are approximately 628 empty stalls in the off-street supply at the peak hour.

- Individual lots maintain higher peak occupancies. For instance the 76 stall City Hall lot is 76.3% occupied at the peak hour and the public portion of surface parking at Block 47 reaches 74.1%.[7] Both peak numbers exceed the combined downtown average.

XIII. CHARACTERISTICS OF THE PARKING SUPPLY – HIGH OCCUPANCY NODE

In many instances looking at the peak hour occupancy rate for an entire study area does not adequately portray some of the constraints on the parking system in specific areas of the downtown. Currently, low occupancies on-street along the periphery of the study area tends to bring down the overall peak occupancy rate. Therefore, it is important to identify and evaluate the "area of highest occupancy" through a nodal analysis. The nodal analysis provides information on that section (sub-area) of the study zone that consistently demonstrates the highest peak hour occupancy within the larger study area and also has a large amount of retail frontage—i.e. the area where on-street parking turnover most directly impacts business vitality.

Downtown Redmond's High Occupancy Node is made of 10 contiguous block faces including both sides of SW 6th Street from SW Deschutes Avenue on the north to SW Forest Avenue on the south and the side streets between 6th and 7th Streets – Deschutes, Evergreen and Forest. These block faces display consistent patterns of use that are markedly higher than the larger downtown on-street occupancy average. These block faces are illustrated in **Figure D**.

While smaller than a traditional High Occupancy Node (250+ stalls), this area (64 stalls) demonstrates the highest level of parking activity in the downtown during the system-wide peak hour.

[7] This lot is controlled by Housing Works.

Figure D
Area of Highest Occupancy

A. High Occupancy Node – Findings

The High Occupancy Node consists of 64 stalls, which represents 11% of all stalls in the study zone. Findings from the High Occupancy Node analysis are summarized in **Table 6 and Figure** E below.

Table 6
Summary of Use: High Occupancy Node

Area	# of Stalls	Peak Hour	Peak Occupancy	Stalls Available	Average Length of Stay	Turnover	Unique Vehicles (% of total)
High Occupancy	64	12:00 – 1:00 PM	84.4%	10	1 hr. / 42 min.	5.88	225 (28%)
Entire Study Zone	566	12:00 – 1:00 PM	36.6%	359	2 hr. / 7 min.	4.72	796 (100%)

- The on-street peak hour was between 12:00 PM and 1:00 PM, which is consistent with the larger study zone.
- Occupancy reaches 84.4% at the peak hour. This is a significant difference when contrasted to the rest of the downtown (@ 36.6%).
- There are 10 block faces within the High Occupancy Node. During the peak hour 4 of these are at 100% occupancy; 3 are between 75% and 80% and the remaining 3 are between 83% and 88% occupied. Overall, the node has a very high rate of occupancy.
- The average duration of stay of a vehicle parked on-street in the High Occupancy Node is 1 hour and 42 minutes (1.7 hours). This is a significantly shorter duration than the average for the larger study area, which is 2.12 hours. Given that there are no posted time stays on these block faces, the system turn over at a higher rate than the average for the downtown. The better than expected turnover rate may also be attributable to efforts by the City and merchants association to voluntarily encourage employees to avoid parking on 6th Street.
- Turnover in the High Occupancy Node is 5.88, which is higher than the overall study area average and much more conducive to an active street level environment (i.e., in excess of 5.0).
- The High Occupancy Node represents just 11% of the total supply (64 of 566 stalls), but served 225 unique vehicles. This is 28% of all vehicles parked on-street in the study zone on the survey day.[8]

Figure E
High Occupancy Node: Hourly Parking Occupancies

[8] Also, the High Occupancy Node accounted for 383 of all vehicle hours parked on the survey day, or 23% of total vehicle hours (1,677).

B. Long Term Parking in the High Occupancy Node

Based on the findings for the High Occupancy Node, it is apparent that the node is constrained (84.4% at peak), serves a higher proportion of users (28% of unique vehicles) and turns over at a higher rate than the overall average (5.88 versus 4.72).

At the request of the City, RWC was asked to analyze each parking stall to ascertain at what level users of this node may still be using the on-street parking for long-term parking purposes. In other words, the City was interested in learning whether the lack of posted time limits on these High Occupancy Node block faces might be encouraging use by employees or residents rather than customers.

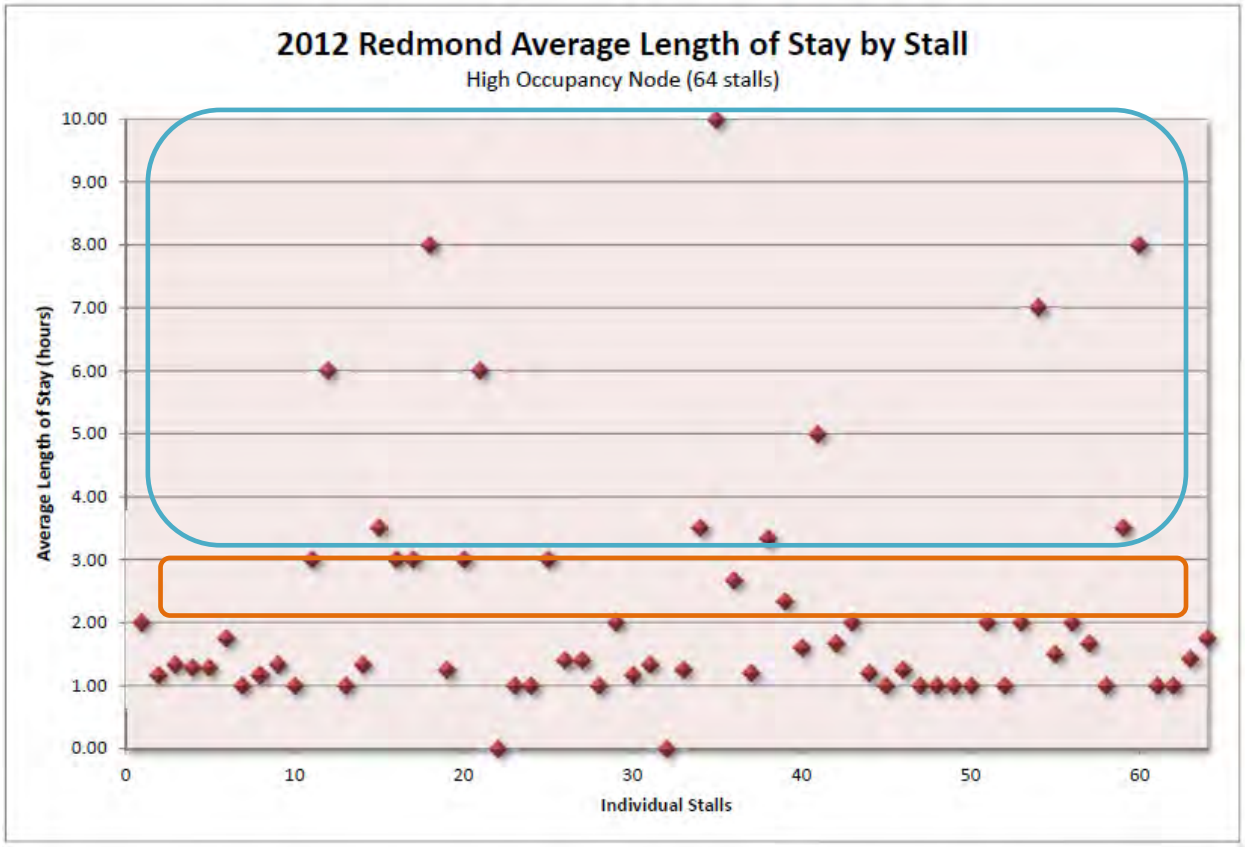
Based on our survey methodology it is difficult to ascertain the user (i.e., employee or visitor) whose vehicle is in a specific stall. However, we can identify users by actual length of stay and assume that any use of five hours or greater could indicate use by an employee (or a long-term visitor who might be better accommodated in an off-street location).

With these basic assumptions, RWC was able to plot actual use by stall for each of the 64 parking stalls in the High Occupancy Node. The pattern of use is illustrated in **Figure F.** The X axis in the Figure represents the individual stalls in the node (1 – 64); the Y axis the average duration of stay for each individual stall.

- Seven of 64 stalls (11% of supply) were parked with a vehicle for just over 2 hours and up to 3 hours (the orange circle in the figure). These are likely customer visits that require a stay of longer than two hours.
- Eleven of 64 stalls (17% of supply) were parked with a vehicle for more than 3 hours (the blue circle in the figure).
- Of those parking in excess of three hours, seven are parking for five or more hours (11%), which may be employees.
- The remainder of the supply (about 72%) accommodates stays of two hours or less, with the majority of that accounting for stays that average less than two hours. Vehicles in this category are likely customers/visitors.

Overall, it appears that there are users of the High Occupancy Node that use the area for long-term parking purposes (about seven cars per day with stays of 5 or more hours). Given the absence of posted time limits, the majority of stalls turn over at a higher than rate than would normally be expected (i.e., 5.88 turns per day). If additional capacity for short-term stays were desired, implementing a posted time stay with enforcement (e.g., 2 HR) could increase access capacity and maximize turnover.

Figure F
High Occupancy Node: Analysis of Time Stay Average by Stall



IX. SUMMARY

On-street

Redmond's downtown on-street supply totals 566 stalls. At the peak hour (1:00 PM – 2:00 PM) 36.6% of these stalls are occupied, leaving the majority of stalls (359) empty and available for new use or future demand growth. Currently, the supply is formatted to allow most users to park "no-limit," though data indicates that the average duration of stay on street is about 2 hours and 7 minutes. However, the low occupancies on-street suggests that access to parking is not constrained and current time designations are more than adequate to meet existing user demand and convenience in the majority of the downtown study zone.

Data from the High Occupancy Node suggests time stay designations should be adjusted (e.g., increase the number of 2 HR time limited stalls) to assure an on-street parking environment that is reflective of demand (above 85%) and conducive to maximizing turnover and support for ground level business access in this area of the study zone.

Off-street

Like the on-street supply, the 44 off-street lots surveyed are (as a system) underutilized. Peak hour occupancy for the off-street supply reaches 48.2% between 1:00 and 2:00 PM. At this time, there are 395 vehicles parked in the 819 space supply (survey sample). This leaves 424 stalls empty and available. If extrapolated to the larger off-street inventory (90 lots/1,778 stalls) there are 628 empty stalls in the off-street supply at the peak hour.

Only three of the 90 lots within the inventory are in public control, leaving about 90.0%% of off-street supply in private control. This is not unusual when compared with other cities, but means strategic opportunities for shared use agreements and managing existing supply through centralized and consolidated programming becomes more complex as the downtown grows and development occurs on existing surface lots.[9]

Combined Supply (on and off-street parking)

The overall supply of parking in downtown Redmond is significantly underutilized. Occupancies in the peak hour, for the on-street and off-street systems, total 36.6% and 48.2%, respectively. The combined system (on and off-street) reaches 43% at the peak hour. This type of utilization suggests both room for growth (absorption of new land uses/parking demand) and opportunities for shared use of supply or consolidation of parking to facilitate new development of underutilized parcels.

[9] References for sample and model shared use parking agreements can be found at http://alexandriava.gov/uploadedFiles/tes/info/2012-04-10%20Del%20Ray%20Appendix.pdf; See also, http://www.ci.scappoose.or.us/PDF_files/transit/Columbia%20County%20Transit%20Plan%20-%20Appendix.pdf; See also, http://www.ci.pleasant-hill.ca.us/DocumentCenter/Home/View/2442

APPENDIX A
SUMMARY TABLE: OFF-STREET PARKING SAMPLE

2012 Downtown Redmond Off-Street Hourly Parking Utilization – by Facility

Block #/F	Stalls	Company	8am-9am	9am-10am	10am-11am	11am-12pm	12pm-1pm	1pm-2pm	2pm-3pm	3pm-4pm	4pm-5pm	5pm-6pm
27A/C	69	Library – *Public Parking*	6	10	39	31	23	29	31	34	26	28
			8.7%	14.5%	56.5%	44.9%	33.3%	42.0%	44.9%	49.3%	37.7%	40.6%
27A/C	28	Police Staff	19	20	21	22	16	19	20	21	18	17
			67.9%	71.4%	75.0%	78.6%	57.1%	67.9%	71.4%	75.0%	64.3%	60.7%
27B	9	Nissen & Meyer	5	4	5	5	2	4	5	6	5	4
			55.6%	44.4%	55.6%	55.6%	22.2%	44.4%	55.6%	66.7%	55.6%	44.4%
27B	16	Police Parking	10	5	10	10	7	8	10	13	8	6
			62.5%	31.3%	62.5%	62.5%	43.8%	50.0%	62.5%	81.3%	50.0%	37.5%
29A/D	11	Run Around Sports	7	7	6	5	7	7	7	7	7	5
			63.6%	63.6%	54.5%	45.5%	63.6%	63.6%	63.6%	63.6%	63.6%	45.5%
30A/B/C	46	US Bank	1	17	22	19	22	21	19	21	16	14
			2.2%	37.0%	47.8%	41.3%	47.8%	45.7%	41.3%	45.7%	34.8%	30.4%
30C/D	16	Medical Supply	1	1	2	2	3	3	3	2	4	2
			6.3%	6.3%	12.5%	12.5%	18.8%	18.8%	18.8%	12.5%	25.0%	12.5%
30D	10	Animal Land	0	2	2	2	2	3	2	4	2	2
			0.0%	20.0%	20.0%	20.0%	20.0%	30.0%	20.0%	40.0%	20.0%	20.0%
39B	36	Hardware Sporting Goods	3	9	10	16	9	14	14	10	13	11
			8.3%	25.0%	27.8%	44.4%	25.0%	38.9%	38.9%	27.8%	36.1%	30.6%
40A/D	22	Housing Works	15	17	16	16	13	17	15	16	16	12
			68.2%	77.3%	72.7%	72.7%	59.1%	77.3%	68.2%	72.7%	72.7%	54.5%
41B	15	Artistic Edge Salon	0	1	2	2	4	6	5	3	2	3
			0.0%	6.7%	13.3%	13.3%	26.7%	40.0%	33.3%	20.0%	13.3%	20.0%
45C/D	76	City Hall – *Public Parking*	29	54	55	49	54	58	50	39	33	27
			38.2%	71.1%	72.4%	64.5%	71.1%	76.3%	65.8%	51.3%	43.4%	35.5%
46C/D	56	6th Street Building	18	27	38	36	35	38	35	28	18	14
			32.1%	48.2%	67.9%	64.3%	62.5%	67.9%	62.5%	50.0%	32.1%	25.0%
47B/C	27	City Lot - *Public Parking*	2	3	8	15	17	20	15	9	7	11
			7.4%	11.1%	29.6%	55.6%	63.0%	74.1%	55.6%	33.3%	25.9%	40.7%

47B/C	11	Bank of America	0	2	4	5	9	3	6	4	5	1
			0.0%	17.2%	34.5%	45.5%	81.8%	27.3%	56.6%	39.4%	45.5%	9.1%
47B/C	9	Creamery – Patrick/Franks	1	2	2	3	8	6	2	3	3	2
			11.1%	22.2%	22.2%	33.3%	88.9%	66.7%	22.2%	33.3%	33.3%	22.2%
53A/B	10	Wells Fargo Customer Lot	2	4	3	5	6	3	3	8	6	2
			20.0%	40.0%	30.0%	50.0%	60.0%	30.0%	30.0%	80.0%	60.0%	20.0%
53A/D	19	Wells Fargo Employee Lot	6	9	10	11	12	10	8	8	9	8
			31.6%	47.4%	52.6%	57.9%	63.2%	52.6%	42.1%	42.1%	47.4%	42.1%
53B	10	Ace Discount Motor Sports	5	6	6	5	5	6	7	5	5	2
			50.0%	60.0%	60.0%	50.0%	50.0%	60.0%	70.0%	50.0%	50.0%	20.0%
53D	33	Redmond Proficiency	28	30	27	30	23	27	22	20	13	3
			84.8%	90.9%	81.8%	90.9%	69.7%	81.8%	66.7%	60.6%	39.4%	9.1%
42A/C	24	Becky Johnson Comm. Ctr.	11	14	13	15	9	12	11	12	12	6
			45.8%	58.3%	54.2%	62.5%	37.5%	50.0%	45.8%	50.0%	50.0%	25.0%
42B	6	Opportunity Foundation of Central Oregon	0	1	2	1	3	1	1	1	1	2
			0.0%	16.7%	33.3%	16.7%	50.0%	16.7%	16.7%	16.7%	16.7%	33.3%
44A	7	Café	3	3	2	3	0	2	4	5	1	0
			42.9%	42.9%	28.6%	42.9%	0.0%	28.6%	57.1%	71.4%	14.3%	0.0%
44A	5	Law Offices	2	2	3	3	0	2	1	3	0	0
			40.0%	40.0%	60.0%	60.0%	0.0%	40.0%	20.0%	60.0%	0.0%	0.0%
44D	12	Law Offices/ City Center	7	9	11	10	7	10	11	10	8	7
			58.3%	75.0%	91.7%	83.3%	58.3%	83.3%	91.7%	83.3%	66.7%	58.3%
25C	13	North County Service Building		8	7	4	2	6	7	8	7	6
			61.5%	53.8%	30.8%	15.4%	46.2%	53.8%	61.5%	53.8%	46.2%	0.0%
22A	6	Royal Crown Barber	3	3	3	3	3	2	3	3	3	1
			50.0%	50.0%	50.0%	50.0%	50.0%	33.3%	50.0%	50.0%	50.0%	16.7%
22A	5	Professional Heating and Cooling	4	3	3	3	2	0	3	3	2	1
			80.0%	60.0%	60.0%	60.0%	40.0%	0.0%	60.0%	60.0%	40.0%	20.0%

22A	3		1	1	1	1	0	1	1	0	1	0
			33.3%	33.3%	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	33.3%	0.0%
22A/D	5	For Lease Office/ Retail Building: FRATZKE	2	2	2	4	4	2	2	2	2	2
			40.0%	40.0%	40.0%	80.0%	80.0%	40.0%	40.0%	40.0%	40.0%	40.0%
31A	11	Sully's Italian Restaurant	0	0	0	0	0	0	0	0	1	1
			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.1%	9.1%
22C/D	16	Maxine Hoggan	1	1	2	4	2	2	3	2	0	0
			6.3%	6.3%	12.5%	25.0%	12.5%	12.5%	18.8%	12.5%	0.0%	0.0%
23C/D	28	Sears	4	8	7	15	15	15	11	8	17	17
			14.3%	28.6%	25.0%	53.6%	53.6%	53.6%	39.3%	28.6%	60.7%	60.7%
55A/C	24	City Center Four Square Fellowship	1	1	2	3	1	0	0	0	0	0
			4.2%	4.2%	8.3%	12.5%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%
55B	30	City Center Four Square Fellowship	6	6	6	5	6	4	2	2	2	3
			20.0%	20.0%	20.0%	16.7%	20.0%	13.3%	6.7%	6.7%	6.7%	10.0%
54A	8	JWC CPA	3	4	3	3	3	2	2	1	1	1
			37.5%	50.0%	37.5%	37.5%	37.5%	25.0%	25.0%	12.5%	12.5%	12.5%
54A	8	Richard Little Junior CPA	1	3	3	3	2	3	4	2	2	1
			12.5%	37.5%	37.5%	37.5%	25.0%	37.5%	50.0%	25.0%	25.0%	12.5%
52D	15	Oregon Vision Center/ Multiple Tenants	2	4	4	4	7	5	7	6	2	0
			13.3%	26.7%	26.7%	26.7%	46.7%	33.3%	46.7%	40.0%	13.3%	0.0%
51D	7	Redmond Power Sport	0	1	1	1	1	1	2	0	1	1
			0.0%	14.3%	14.3%	14.3%	14.3%	14.3%	28.6%	0.0%	14.3%	14.3%
51A/D	10	Plum Fierce	1	1	0	0	0	1	0	0	0	0
			10.0%	10.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%
51A/D	3	Plum Fierce	0	1	1	1	1	1	1	1	1	1
			0.0%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%
48A	10	Carquest Auto Parts	5	4	3	3	4	6	4	4	5	8
			50.0%	40.0%	30.0%	30.0%	40.0%	60.0%	40.0%	40.0%	50.0%	80.0%

48A/B	10	Carquest Auto Parts	8	6	7	7	7	6	6	7	6	6
			80.0%	60.0%	70.0%	70.0%	70.0%	60.0%	60.0%	70.0%	60.0%	60.0%
48B/C	23	Chase Bank	2	8	6	9	6	8	4	5	5	4
			8.7%	34.8%	26.1%	39.1%	26.1%	34.8%	17.4%	21.7%	21.7%	17.4%

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MEMORANDUM

TO: Jon Williams, City of Redmond
FROM: Rick Williams, RWC
Owen Ronchelli, RWC
DATE: January 13, 2013 [4]

RE: Shared Parking Opportunities for Downtown, Parking Demand and Electric Vehicles

I. BACKGROUND

The City of Redmond recently completed a comprehensive study of on and off-street parking in its downtown. This study, *2012 Downtown Parking Inventory and Utilization Study,* provided an inventory of all parking within the "downtown study zone."[1] Data for occupancy (by hour of day), duration of stay, turnover and utilization was compiled for each block face in the downtown. Hourly occupancy was quantified in a random sample of 44 of 90 off-street parking sites in the study zone. In summary, the study identified areas on-street where meaningful surpluses of parking exist as well as a particular "node of high occupancy" where parking is constrained. Similar surplus/constraint information was derived for the off-street system.

Using this information, the City is interested in an evaluation of "opportunity sites" within the downtown study zone that could serve as shared parking sites, where employee and visitor parking can be consolidated. Such opportunity sites would be particularly important as areas of on-street parking constraint could be mitigated by efficiently directing employees, customers and visitors to convenient off-street sites with available parking.

II. PURPOSE

The purpose of this technical memorandum is threefold:

a. To identify shared use parking opportunity sites that could best serve parking demand growth in both the near and long-term. Identification of those sites will be filtered through specific criteria to assure that the identified sites would be reasonable and convenient to users and have

[1] The downtown study zone is bounded by SW Black Butte Blvd. on the north, SW Glacier Avenue on the west, SW 9th Street on the west and SW 4th Street on the east.

meaningful stall capacity to absorb growth. Data from the 2012 parking study will be used to support this evaluation.

b. Analysis of parking demand in downtown Redmond based on data derived from the 2012 parking study. A measure of parking demand as a "blended rate" for all uses in the downtown (mixed use demand) was calculated as a function of actual building square footages, occupied building area and peak vehicle occupancy. This analysis is incorporated in Section VI below.

c. Input on the potential parking demand associated with reactivating the Historic New Redmond Hotel (48 rooms) on the southeast corner of 6th & Evergreen as well as parking demand associated with converting the current City Hall site to a movie theater. This is summarized in Section VII below.

d. Input on potential locations in the downtown for electric vehicle parking. This is incorporated in Section VIII below.

III. DEFINITION OF SHARED PARKING

For purposes of this evaluation, opportunity sites for shared parking will consider the following definition as pertinent. A shared parking opportunity site is defined as any off-street facility that will allow general public access to all or a portion of the parking stalls available on the site. *Such stalls would be communicated to the public through a common public parking brand, signage, way-finding and other forms of information (e.g., website, maps, etc.).*[2] Shared parking sites may require agreements between parties/owners to formalize access allowances for general public use and specifications for hours of use, cleanliness, signage, shared costs and other issues related to operations and maintenance. In short, "shared access" means that allocated stalls would not be associated with a specific land use (i.e., "accessory parking") but with the general use of the downtown. Hence, customers/visitors and employees of the general downtown would be allowed use of the identified parking.

IV. CRITERIA FOR EVALUATING SITES

The consultant team used data from the 2012 parking study to filter sites that would be most promising for shared parking uses. It is clear that near and long-term strategies will need to be developed: a near term strategy that looks at best utilizing existing sites and a long-term strategy that would envision a parking structure coming on line as existing surface facilities attrition due to development.

Criteria used to identify promising sites include:

[2] These strategies for branding and signing sites (in the public right-of-way and at the lot locations) were detailed in the *2007 Downtown Parking Management Plan (David Evans and Associates)* and are seen as essential to any shared use strategy. RWC would concur with the 2007 Plan recommendations for signing, branding and communications strategies that would be launched with any shared use program.

Near-term opportunities. All current parking in the study zone is surface parking. As such, a near term strategy to identify shared parking opportunity sites would focus on:

- The proximity of a facility to the high occupancy node (see **Figure A**).
- Size of lot, assuming that lots of less than 20 stalls would not provide the capacity necessary to (a) serve their existing user base and (b) share unused stalls with general users of the downtown.[3]
- Current documented availability of stalls. Data from the 2012 study provides hourly occupancies in key lots as well as peak occupancy, which allows for an evaluation of stall availability. As an example, a large lot with very high occupancy may meet the first two criteria, but not be moved forward as an opportunity based on lack of stall availability.

Long-term opportunities. This evaluation will assess opportunity sites that could serve as a future "district" shared use parking garage (+200 stalls). The concept here being that in the future, as lots redevelop into new land uses, existing parking supply will be displaced and parking will be constrained. This would result in the need for a "vertical solution," consolidating a supply of parking necessary to accommodate both existing and new demand in a parking structure.

As such, a longer term strategy to identify shared parking opportunity sites would focus on:

- The proximity of the site to the high occupancy node (see **Figure A**).
- Geometry of the site (i.e., does the site have a large enough floor footprint to efficiently accommodate a garage?).

Figure A: Opportunity Zone

V. IDENTIFICATION OF SHARED PARKING OPPORTUNITY SITES

Both near and longer term strategies for shared parking require sites that fall within or very proximate to the "high occupancy node" identified in the 2012 parking study. The high occupancy

[3] Smaller lots can, however, be particularly useful in the future to selectively accommodate employee parking, through agreements between local businesses and lot owners. The data on utilization in the 2012 study provides a resource for identifying these lots in the future and, potentially, as a basis for initiating/facilitating conversations between businesses and lot owners. These types of arrangements (for employee use) do not require detailed agreements and/or signage to manage them.

node was determined to be the 10 contiguous block faces that include both sides of SW 6th Street from SW Deschutes Avenue on the north to SW Forest Avenue on the south and the side streets between 6th and 7th Streets – Deschutes, Evergreen and Forest.[4] These block faces can be seen in **Figure A** and are mostly in red, indicating occupancies of greater than 85% in the peak hour.

For analytical purposes we assumed a one block walk distance from the center of the high occupancy node (Block 40 in the Figure) as being "ideal" for, and most convenient to, users seeking parking opportunities resulting from on-street constraints. Figure A illustrates the "opportunity zone" (within white lined boundary). This is a nine block area and includes Blocks 27 (eastern half), 29, 30, 39, 40, 41, 45, 46 and 47.

a. Near Term Opportunities

There are approximately 13 surface parking sites in the opportunity zone. **Table 1** provides a summary of each facility by number of stalls and hourly occupancy.

Based on selection criteria established in Section IV above, one can see that five sites drop off the list of potential sites. For the most part, these sites are 20 stalls or less, leaving little additional capacity for absorbing new demand. As noted in footnote 2, above, some of these smaller sites could serve as areas where employees are directed, which would work to free the larger sites up for a higher mix of visitor use.

As such, a total of six sites remain as potential shared parking opportunity sites.[5] To this end, there are a few observations to make regarding the remaining sites:

- Block 27A – Library. The Library lot is comprised of 69 stalls located on the western edge of the opportunity zone boundary, which makes means it is not ideally located to the center of the high occupancy node. Nonetheless, at the peak hour it reaches about 57% occupancy, leaving 30 stalls empty. The lot is in public ownership which could make a shared use arrangement between the City and the Library feasible.
- Block 30A/B/C – US Bank. The US Bank Lot is comprised of 46 stalls located in the north east corner of the opportunity zone. At the peak hour, the lot reaches 48% occupancy, leaving 24 stalls empty. The lot is in private ownership.
- Block 39B – Hardware Sporting Goods. This lot is comprised of 36 stalls located on Evergreen between SW 5th and SW 6th. At the peak hour, the lot reaches 44.4% occupancy, leaving 20 stalls empty.

[4] These block faces display consistent patterns of use that are markedly higher than the larger downtown on-street occupancy average.
[5] The lots on Block 47 are treated as a single site given the contiguous nature of the lots.

Table 1

Potential Shared Parking Sites – Opportunity Zone[a]

Block #/F	Stalls	Company	8am-9am	9am-10am	10am-11am	11am-12pm	12pm-1pm	1pm-2pm	2pm-3pm	3pm-4pm	4pm-5pm	5pm-6pm
27A/C	69	Library – *Public Parking*	6	10	39	31	23	29	31	34	26	28
			8.7%	*14.5%*	*56.5%*	*44.9%*	*33.3%*	*42.0%*	*44.9%*	*49.2%*	*37.6%*	*40.6%*
29A/D	11	Run Around Sports	7	7	6	5	7	7	7	7	7	5
			63.6%	*63.6%*	*54.5%*	*45.5%*	*63.6%*	*63.6%*	*63.6%*	*63.6%*	*63.6%*	*45.5%*
30A/B/C	46	US Bank	1	17	22	19	22	21	19	21	16	14
			2.2%	*37.0%*	*47.8%*	*41.3%*	*47.8%*	*45.7%*	*41.3%*	*45.7%*	*34.8%*	*30.4%*
30C/D	16	Medical Supply	1	1	2	2	3	3	3	2	4	2
			6.3%	*6.3%*	*12.5%*	*12.5%*	*18.8%*	*18.8%*	*18.8%*	*12.5%*	*25.0%*	*12.5%*
30D	10	Animal Land	0	2	2	2	2	3	2	4	2	2
			0.0%	*20.0%*	*20.0%*	*20.0%*	*20.0%*	*30.0%*	*20.0%*	*40.0%*	*20.0%*	*20.0%*
39B	36	Hardware Sporting Goods	3	9	10	16	9	14	14	10	13	11
			8.3%	*25.0%*	*27.8%*	*44.4%*	*25.0%*	*38.9%*	*38.9%*	*27.8%*	*36.1%*	*30.6%*
40A/D	22	Housing Works	15	17	16	16	13	17	15	16	16	12
			68.2%	*77.3%*	*72.7%*	*72.7%*	*59.1%*	*77.3%*	*68.2%*	*72.7%*	*72.7%*	*54.5%*
41B	15	Artistic Edge Salon	0	1	2	2	4	6	5	3	2	3
			0.0%	*6.7%*	*13.3%*	*13.3%*	*26.7%*	*40.0%*	*33.3%*	*20.0%*	*13.3%*	*20.0%*
45C/D	76	City Hall – *Public Parking*	29	54	55	49	54	58	50	39	33	27
			38.2%	*71.1%*	*72.4%*	*64.5%*	*71.1%*	*76.3%*	*65.8%*	*51.3%*	*43.4%*	*35.5%*
46C/D	56	6th Street Building	18	27	38	36	35	38	35	28	18	14
			32.1%	*48.2%*	*67.9%*	*64.3%*	*62.5%*	*67.9%*	*62.5%*	*50.0%*	*32.1%*	*25.0%*
47B/C	27	City Lot - *Public Parking*	2	3	8	15	17	20	15	9	7	11
			7.4%	*11.1%*	*29.6%*	*55.6%*	*63.0%*	*74.1%*	*55.6%*	*33.3%*	*25.9%*	*40.7%*
47B/C	11	Bank of America	0	2	4	5	9	3	6	4	5	1
			0.0%	*17.2%*	*34.5%*	*45.5%*	*81.8%*	*27.3%*	*56.6%*	*39.4%*	*45.5%*	*9.1%*
47B/C	9	Creamery – Patrick/Franks	1	2	2	3	8	6	2	3	3	2

[a] [Note: Lots in blue (public ownership), lots in pink (private ownership), and lots in white (fail to meet "opportunity" criteria for further evaluation).]

- Block 45C – City Hall. The City Hall lot is the largest lot in the opportunity zone. It is comprised of 76 stalls located in the southwest corner of the opportunity zone. At the peak hour, the lot reaches 76.3% occupancy, leaving 18 stalls unoccupied. The lot is in public ownership, providing the City a great deal of flexibility if this site were converted into a generally accessible and communicated public visitor lot.
- Block 46C/D – 6th Street Building. This lot is comprised of 56 stalls located at SW 7th and Forest. At the peak hour the lot reaches 68% occupancy, leaving 18 stalls empty. The lot is in private ownership.
- Block 47 – Contiguous Lots. The lots on Block 47 are actually made up of three separate ownership properties but are contiguous and, from the perspective of the public, operate as a single site. The largest lot of the three (27 stalls) is in City ownership. In total, the three lots comprise 47 stalls, making it the fourth largest concentration of surface parking stalls in the opportunity zone. At the combined peak hour, 37 vehicles are parked (79%), leaving 10 stalls empty.

Overall, these six opportunity sites total 330 stalls with a combined peak hour occupancy of 60.7%. At the peak hour, there are approximately 130 empty stalls in these lots. This is summarized in **Table 2**.

Table 2

Potential Shared Parking Opportunity Sites

Site	*Number of Stalls*	*Peak Occupancy*	*Stalls Empty*	*Ownership*
27A – Library	69	56.5%	30	Public
30A/B/C – US Bank	46	47.8%	24	Private
39B – Hardware Sporting Goods	36	44.4%	30	Private
45C – City Hall	76	76.3%	18	Public
46C/D – 6th Street Bldg.	56	67.9%	18	Private
Block 47 - Contiguous	47	79.0%	10	Public and Private
TOTAL	***330***	***60.7%***	***130***	

As Table 2 suggests, the three most attractive opportunities are the Library, US Bank and Sporting Goods lots. This is based on both their proximities to the opportunity zone, but also their empty stall totals. With two of the lots in private ownership, the need for detailed negotiation with owners is necessary and possibly challenging. Nonetheless, it is evident that capacity to absorb parking is available. Elements of shared use agreements would be (for instance):

a. Hours of access
b. Signing stalls for visitor use (interior)
c. Signage (with a common brand) posted at lot entrances
d. Expense coverage (if any)
e. Issues of liability/insurance
f. Lot maintenance/janitorial

The other three sites (Blocks 45, 46 and 47) are not necessarily unattractive, but empty stalls ranging from 10 – 18 in the peak hour leaves little elasticity in the system to assure customers sustained access over time.

The northern half of the City Hall lot would be an ideal location for stalls designated for general visitor use as it is this portion that is most proximate to the high occupancy node. To capture this, existing employee uses would need to be transitioned off the lot. To this end, the City could look at some of the smaller lots in the area and consider agreements with private owners to locate City employees, thus freeing up stalls on this lot for customer use (which would then make signing and branding more effective). One example of that might be an agreement between the City and the City Foursquare Fellowship to use the church lot(s) located on Block 55 (bounded by SW Glacier/SW Forest and SW 8th/SW 9th) for a select number of City employees (or fleet vehicles). These two lots total 54 stalls and were never more than 17% occupied on the survey day (leaving 45 empty stalls at the peak hour).

b. Long-term Opportunities

In the future, as surface lots redevelop, the City and/or a private developer may need to consider construction of a parking garage. Such a facility would be intended to consolidate parking supply and allow the City to "net" new parking supply for multiple users of the downtown.

For this analysis, the consultant team filtered potential sites using the following criteria:

- The proximity of the site to the high occupancy node (see **Figure A**).
- Geometry of the site, assuming a minimum floor plate size of 20,000 SF to efficiently accommodate ground level entry, ramps and convenient stall layout and turning movement.

From the six sites previously evaluated in **Table 2**, potential sites for structured parking were narrowed to four based on the filtering criteria. These four sites are all within the opportunity zone and have minimum floor plates of 20,000 SF.

For purposes of this analysis, "prototypical" garages on the identified sites were evaluated assuming:

a. Structures of 45' or less in height, thereby complying with the City's building height allowances west of SW 6th Street.[6]
b. Ground level retail or active uses, which would put 3 levels of parking over one level active use and total approximately 40 – 45' in height.
c. 50% of the ground level in active use, with the remaining ground level dedicated to entry/exit plazas, stairwells and elevator lobbies.
d. $32,000 per stall in fully loaded construction and development cost for the parking.[7]
e. $100 per SF as the fully loaded construction cost for retail/active use space.[8]

Table 3 summarizes the selected sites.

[6] The City's development regulations allow up to 60' of height in west of SW 6th, with a 10' setback at 45' (see Chapter 8, Section 5: Building Heights). We have assumed that the setback would create inefficiencies on sites that are already narrow.
[7] This number based on cost data derived from recently completed parking garage projects in the Pacific NW.
[8] Ibid.

Table 3
Potential Parking Garage Sites[9]

Site	*Floor Plate*[a]	*Stalls per Level and (total @ 3 Floors)*[b]	*Initial stalls replaced*	*Net New Stalls*	*Cost of Parking*	*Cost of Retail/Active Use*	*Total Cost*
30A/B/C – US Bank	30,000 SF	80 (240)	46	194	$7.68 mil.	$1.50 mil.	$9.18 mil.
45C – City Hall	30,000 SF	80 (240)	76	164	$7.68 mil.	$1.50 mil.	$9.18 mil.
46C/D – 6th Street Bldg.	20,000 SF	53 (159)	56	103	$5.08 mil.	$1.0 mil.	$6.08 mil.
Block 47 - Contiguous	20,000 SF	53 (159)	47	112	$5.08 mil.	$1.0 mil.	$6.08 mil.

[a]Square footage estimates were derived from a land use data based for the downtown provided to the consultant by the City of Redmond.
[b]Assumes 375 SF per stall, which includes area for the parking stall, ramps, pedestrian areas, etc. The consultant believes this is a conservative estimate, having experienced garage developments with average stall SF as low as 330 SF.

As the Table suggests, parking facility costs could range from $6.08 million to $9.18 million (which includes retail/active use space at ground level). Of the four sites, the site at Block 30 (US Bank) would net the city the most new stalls (194) as compared to any other sites. The Block 45 site (City Hall) would net 164 new stalls and the other smaller sites netting just over 100 stalls.

Three of the four sites are in private ownership. As such, the potential development of these sites with public parking would require either a partnership relationship with the property owners or purchase of the sites by the City. The City Hall site, of course, is in City control and nets the second highest number of stalls to the downtown under the assumed scenarios.

VI. PARKING DEMAND – BLENDED DOWNTOWN RATE

Parking ratios express the actual number of parking spaces available to serve demand for land uses (i.e., office, retail, residential and/or mixed-use development). The number of stalls represented by a parking ratio may exceed actual demand for parking or fall short of that demand. Demand ratios, on the other hand, are generally expressed in the context of the peak hour use of a specific built supply of parking. In other words, demand ratios represent an estimate of the actual number of *stalls occupied* at the peak hour relative to *occupied land uses*. Effectively managing the relationship between land uses and built and occupied parking supply is a fundamental challenge of parking management.

[9] All estimates contained herein are only reflections of baseline assumptions provided from multiple sources in an effort to create a reasonable assumption of cost of development. If a facility were pursued, a more detailed and refined analysis would need to be developed using actual numbers based on design, site conditions, local regulations and permitting, financing costs, etc.

Understanding the difference between the ratios of built supply and the ratio of demand is an important element for parking management. Parking ratios based on actual demand allow cities the ability to plan for parking at a rate consistent with actual use, thereby reducing overall parking development costs over time. An understanding of actual demand also allows a city to estimate the impact of new development on an existing supply of parking. *In most cases, use of locally derived ratios of demand demonstrate that less parking is actually needed than what might be required in current local codes and/or what would be suggested using Institute of Transportation Engineers (ITE) parking demand generation tables.*[10]

The exercise represented in this section is an attempt to develop a better understanding of parking supply and demand for downtown Redmond. To that end, the consultant team derived two "ratios" from the data analysis.

- The actual *Built Ratio* of available parking stalls, in relation to total built land uses in the Downtown Redmond study zone.

- The actual current *Demand Ratio* for parking stalls per total built land use based on actual usage data from the "typical day" survey.

a. Methodology

The consultant team developed a comprehensive list of all land uses within the downtown study area. This data set was compiled from the most current land use data file for the downtown provided by the City of Redmond. All individual tax lots within the study area were manually verified through assessor data, available tax lot maps and physical assessment of sites. Where square footage information was not available, the site was evaluated using Google Earth and individual site visits by surveyors. Square footages were derived for commercial, retail and institutional properties only. Residential properties were not calculated, but to assure an accurate derivation of commercial/retail/institutional parking demand, where residential properties were identified, so too was their parking. In other words, parking in residential facilities was not included in the assessment of the overall parking supply. As such, land use and parking occupancy numbers are only associated with commercial, retail and institutional buildings and parking associated with those uses. To the degree that a single source land use database is not available for the downtown study area, the data set created by the consultants is, we believe, an accurate and conservative estimate of land use square footages in the downtown study zone.

The resultant *built ratio* of parking to land use then is reflective of the total availability of parking serving a mixed-use environment in the downtown. In short, the built ratio expresses a relationship of all stalls that exist in the study zone and the total square footage of all commercial/office, retail and institutional buildings in the study zone. The outcome is a "blended" ratio of all parking to total gross building area.

[10] Shoup, D. (2002). The Trouble with Minimum Parking Requirements. Victoria, British Columbia: Victoria Transport Policy Institute. Available on-line at: http://www.vtpi.org/shoup.pdf

The *demand ratio* reflects the public demand for parking stalls associated with that land use using actual peak occupancy data from the 2012 parking survey. The demand ratio uses a reasonable estimate of *occupied* building area as opposed to *total gross* building area.

Using these two measures, the consultant team was then able to express actual parking ratios per 1,000 square feet of mixed-use development for Redmond's Downtown for both the built environment and as an expression of "actual demand."[11]

b. Extrapolated Peak Hour Occupancy

Data from the survey samples was extrapolated to the total supply of parking to derive a basis for measuring parking demand. The consultant team sampled 100% of the on-street parking supply in the downtown and 97% of the entire off-street supply. This level of sampling provides a statistically significant representation of parking activity in all stalls.

Table 4 summarizes the methodology used to determine the number of vehicles parking in *all stalls* in the downtown subzone at its peak hour of occupancy.

Table 4
Peak Occupancy – All Stalls

Supply	# of Stalls	Peak Occupancy	Stalls Occupied	Stalls Available (empty)
On-Street Supply				
On-street supply (100% sample)	566	36.6%	207	359
Off-Street Supply				
Off-street supply (67.6% sample)	819	48.2%	395	424
Extrapolated to all off-street stalls (100%)	1,212	48.2%	628	584
Combined On and Off-Street Supply				
Extrapolated to Total Supply	***1,778***	***46.9%***	***835***	***943***

[11] This analysis quantified the relationship between land uses, parking occupancy and built parking supply. Though not a definitive measure of demand by specific land use type, this exercise was useful in deriving estimates for overall demand in Redmond, based on actual parking activity in the downtown.

c. Findings - Demand

Calculation for parking demand ratios reveal two different, but equally useful correlations (see **Table 5**):

- *Built Ratio of Parking*. This represents the total number of existing parking stalls correlated to total existing land use square footage (occupied or vacant) within the study area. According to data derived from City land use data, there is approximately 679,000 square feet of built mixed uses in the downtown subzone (Column B).[12] All parking stalls in the subzone total 1,778 stalls (Column E).

From this data, we can calculate a *built parking ratio* of approximately 2.62 parking stalls per 1,000 square feet of built land use within the study area (Column F).[13]

- *Demand Ratio.* This represents peak hour parking occupancy within the entire study area. As such, actual parked vehicles (Column G) were correlated with actual occupied building area (Column D).

At this time, there are no good sources of building vacancy data for the downtown. As such, two factors were run for this analysis using an assumed 10% vacancy rate and 20%. This creates a demand range for the City against which future projects can be evaluated. From this perspective, current peak hour demand stands at a ratio that ranges between 1.23 and 1.54 parking stalls per 1,000 square feet of occupied land use (Column H).

As **Table 5** demonstrates, the *mixed use demand* for parking ranges between 1.23 and 1.54 stalls per 1,000 SF when occupied stalls (at the *peak hour)* are correlated to occupied building area ranges of 80% to 90%. If in the future parking were only provided at these rates of actual demand absorption, overall peak hour occupancies would near 100%. This is due to the fact that the actual ratio of demand covers total demand and does not assume a cushion or "buffer" of stalls to address unexpected growth or spikes in parking activity. As such, **Table 5** also presents "parking demand with a 15% buffer," which increases the actual ratio of parking demand from a range of 1.23/1.54 stalls per 1,000 SF to 1.41/1.77 stalls per 1,000 SF (Column I).[14]

[12] The downtown Redmond Hotel is a 3 story structure with 91,965 SF, but only the bottom floor is occupied so 30,655 SF was added to the total square footage for the downtown (i.e., the vacant 61,310 SF was excluded from the total above based on the assumption that, given its condition, it will not be potential "leasable space" for some time).

[13] The formula would be 1,788 total stalls / (679,000 gross square feet /1000).

[14] The 15% buffer is calculated by multiplying total stalls parked in the peak hour (Column G) by 1.15. Industry parking standards would recommend maintaining this type of parking cushion, particularly in retail environments, to create a sense or perception of parking "availability" by the customer to the downtown.

Table 5
Study Area Demand – Mixed Land Use to Built Supply

A	B	C	D	E	F	G	H	I	J
Sites in Study Zone	**Gross Square Footage (Built)**	**Estimated Vacancy Rate[15]**	**Gross Square Footage (Occupied)**	**Total Stalls in Study Zone**	***Built Ratio of Parking* (GSF)**	**Total Stalls Parked in Peak Hour**	**Actual Ratio of Parking Demand/ 1,000 SF**	**Parking "Demand" w/ 15% buffer**	**ITE "Demand"[16]**
111	679,000 SF	10%	611,100 SF	1,778	2.62/1,000 SF	835	1.23/1,000 SF	1.41/1,000 SF	2.84 – 4.00/1,000 SF[17]
111	679,000 SF	20%	543,200 SF	1,778	2.62/1,000 SF	835	1.54/1,000 SF	1.77/1,000	

To date, parking has been *built* at an average rate of 2.62 stalls per 1,000 square feet of development within the downtown (which includes the on-street system). This rate appears to have been effective, though significant stall availability exists within the parking system. In actuality, land uses in Downtown Redmond are generating parking *demand* ratios of 1.23 to 1.54 stalls per 1,000 SF of commercial, retail and institutional development in the study zone.[18] Redmond's current parking standard in the Downtown Overlay District is 1 stall per 500 SF (or 2.0/1,000 SF), which is slightly higher than the top end of the actual inflated demand range quantified here (1.77/1,000 SF in Column I).[19] When contrasted to ITE demand ratios (Column J), it is clear that planning for parking at ITE levels would likely result in an oversupply of parking and added development cost to either the City or a private developer. This would be the case even if actual Redmond demand numbers are inflated by 15% (Column I).

These demand factors are baseline estimates and should be used to inform parking programs and strategies to ensure parking is provided at a rate appropriate to growth and marketability as well as in a format that is efficient, cost effective and supportive of the downtown vision of higher density and more compact urban development.

[15] According to the City of Redmond there are currently no good sources of building vacancy data for the downtown. As such, two factors were run for this analysis using an assumed 10% vacancy rate and 20%. Using the same mode outlined in Table 5, the City can refine the actual ratio(s) of parking demand as more refined information on downtown building vacancies become available.

[16] Based on ITE tables for cities of Redmond's size.

[17] ITE does not provide parking ratios based on mixed use environments. Suggested "parking demand ratios" are provided for individual uses, which (a) generally overstates actual demand, (b) does not account for the elasticity in peak demand periods between adjacent uses and (c) does not allow for efficiencies that the variety in peak demand between uses contributes to "sharing" and blending of such supplies in a mixed use downtown environment.

[18] It is important to note that some individual users will generate demand that exceeds the 1.23/1.54 range. However, when viewed as a mixed-use land use and access system, overall parking demand would be near this number for the entire downtown.

[19] See Chapter 8: 8.0500 of the Redmond Development Code.

For purposes of comparison, **Table 6**, below, provides a summary of built supply to actual demand for other cities that the consultant team has worked with.

Table 6
Other Cities – Summary of Built Supply to Actual Mixed-Use Demand

City	Actual Built Supply/1000 SF	Actual Demand/ 1,000 SF	Gap between parking required and actual parking demand (for every 1,000 gsf)
Beaverton, OR	4.15	1.85	2.3
Bend, OR	3.0	1.7 – 1.9	1.1 – 1.3
Corvallis, OR	2.0	1.50	0.50
Hillsboro, OR	3.0	1.64	1.36
Hood River, OR	1.54	1.23	0.31
Kirkland, WA	2.5	1.98	0.52
Lake Oswego	2.65	1.63 – 1.87	0.78 – 1.02
Oregon City, OR	2.00	1.43	.57
Redmond, OR	***2.62***	***1.23 – 1.54***	***1.08 – 1.39***
Redmond, WA	3.5 max/4.10 built	2.91	0.59 – 1.19
Sacramento CA	2.0	1.60	0.4
Salem, OR	3.15	2.04	1.11
Seattle, WA (SLU)	2.5+	1.75	0.75
Springfield, OR	1.88	1.11 – 1.28	0.60 - 0.77
Ventura, CA	2.59	1.50	1.09

The demand numbers derived here can be used as a bellwether for determining (a) impact of new development demand on the parking supply and (b) a useful tool to estimate when the need for new parking supply might occur.

VII. ESTIMATED PARKING DEMAND AND NEW DEVELOPMENT (HOTEL & MOVIE THEATER)

The City is interested in assessing the potential impact of parking demand generated by two specific development possibilities. The first being reactivation of currently vacant upper floor space at the New Redmond Hotel into 48 hotel rooms (521 SW 6th Street). The second being the potential impact on parking of a movie theater in downtown located in what is now the City Hall site (716 SW Evergreen).

<u>New Redmond Hotel</u>

It is assumed that the 48 rooms of hotel will serve users from throughout the region and state, with little (if any) traffic arriving by modes other than a car (as might be the case of a hotel that would be located near an airport, that has guests arriving by shuttle's, taxis, etc.). General industry standards for this type

of hotel are based on (a) assumption of an average room occupancy rate and (b) employees per room served. Regional and national data on hotel occupancy rates indicate an average (as of June 2012) in the range of 66%.[20] Parking demand data also calculates the number of hotel employees at 0.50 per occupied room.[21]

Using these metrics, the hotel would generate a demand for 48 stalls. This calculation is summarized in **Table 7**. It should be noted that this number does not assume whether the potential for sharing parking in the area adjacent to the New Redmond Hotel could absorb this demand, rather it is a calculation of the potential peak impact of parking resulting from the addition of 48 rooms to the area. Also, it should be emphasized that the peak hour for hotel parking demand is generally in the evening (after 4:00 PM), when overall parking occupancies in the downtown are lower.

Table 7
Estimated Hotel Parking Demand

# of Rooms	Average Occupied Rooms @ 66%	Guest Parking Demand (1 vehicle per occupied room)	Number of employees @ 0.50 per occupied room	Employee Parking Demand @ 1 vehicle per employee	Combined Parking Demand (maximum peak hour)
48	32	32	16	16	48

Movie Theater – City Hall Site

At this time, the City does not know the size or format of the potential movie theater. As such, input provided here will be to leave the City with a reasonable demand factor that could then be used to calculate parking demand once a theater development becomes clearer.

To quantify parking demand for a downtown movie theater in Redmond, a number of sources were evaluated. These included a 2006 study conducted by Portland State University evaluated parking demand for movie theaters in a number of suburban locations in the Portland metropolitan area;[22] a demand model that was created by Rich & Associates for center city movie theaters;[23] and ITE rates.[24] The Boice and Rich & Associates models quantified *demand* at the peak hour (not stalls actually built), which was generally between 5PM and 8PM. The ITE rates are recommend "build" rates and do not necessarily reflect actual demand and, as such, should be considered high build scenarios.[25] The

[20] See www.deloitte.com/.../Deloitte_Tourism_Hotel_Outlook_Q4_Hotel.
[21] Fishkind & Associates of Orlando, FL for the Fiscal Impact Analysis Model (FIAM) that was created for the Florida Department of Community Affairs (DCA) http://www.sfrpc.com/fiam.htm.
[22] Steven Boice, Parking Demand for MultiPlex Theaters, Portland State University ITE Student Chapter (February 2006),
[23] Rich & Associates, Future Downtown Parking Demand, Downers Grove, Ill, (August 2012).
[24] Fehr & Peer, Downtown Brentwood Parking Study (February 2005). Fehr & Peer evaluated a number of land uses using ITE rates, which included a downtown movie theater.
[25] Both Boice and Fehr & Peers indicate that sites built at ITE rates are generally significantly overbuilt.

demand rates from each source are summarized in **Table 8** with a calculated rate of demand for a hypothetical 350 seat movie theater**.**

Table 8
Demand Assumptions for Downtown Movie Theater: Multiple Sources

Data Source	Boice/PSU	Rich & Associates	ITE
Estimated Peak Parking Demand	0.16 – 0.19 stalls per movie seat	0.20 stalls per movie seat	0.26 stall per movie seat
Demand for Hypothetical 350 seat movie theater	56 – 67 stalls	70 stalls	91 stalls

Based on the sources evaluated, peak parking demand for a movie theater can range from 0.16 to 0.26 stalls per theater seat. Based on the sources identified, the ITE standard appears to be high, resulting in projects where parking was overbuilt, and as a result, somewhat underutilized. Nonetheless, a hypothetical 350 seat theater would generate demand for 56 – 91 stalls.

As with the hotel assessment, peak hour demand for movie theaters is late afternoon to evening (5 PM – 8 PM), and generally does not conflict with the more traditional "retail peak," which (according to the 2012 Downtown Parking study) is during the noon hour in downtown Redmond. As such, moving forward the City should not only derive a parking demand number for a movie theater, but realize that its impact on overall parking demand downtown will be substantially less than the peak hour number(s) estimated in **Table 8**.

VIII. ELECTRIC VEHICLE CHARGING STATIONS

The placement of electric vehicle charging stations supports efforts to promote a more sustainable transportation system and to contribute to the City's goals and objectives for climate change and sustainability. According to the Argonne National Laboratory, EVs substantially reduce all of the emissions that cause adverse health conditions in urban settings, where those emissions are often concentrated and do the most harm to human health. Compared to a gasoline powered vehicle, an EV reduces lifecycle greenhouse gas emissions by 19 percent. EVs nearly eliminate petroleum use and can reduce fossil fuel use by 28 percent.

In evaluating potential locations for placement of electric vehicle charging stations, it is important to consider the most likely users and vehicle charging time.

Defining the user

Strategically, the City should take time to consider their intended users. This includes at least three user groups.

- Customers of the downtown visiting businesses for stays of 2 or less hours.
- Visitors of the downtown with overnight or multiple day stays (hotels).
- Employees working downtown who generally park their vehicles all day.

The traditional retail/restaurant customer will most likely desire a charging station on-street, near or adjacent to their intended destination. A hotel visitor would be benefited by a charger at their place of lodging and an employee in an off-street lot, where duration of stay is not a significant factor.

Vehicle charging time

Within the market now, charging stations have recharge times that range from 30 minutes ("Type 1" - very new and expensive technology) to 8 hours (more typical "Type 2").[26] As such, some vehicle charging equipment (if placed on-street) could tie up parking stalls that are intended to turnover for customers. This would not be a problem if the charging stations are located off-street in lots that serve both customers (needing short-term stay) and employees (parking all day).

If stations are located on-street, it will be important for the City to adopt *consistent signage and parking enforcement standards.* Clearly identifying charging stations and enforcing parking rules will help smooth the possible transition to EV's and help educate the public on how EV's work. Similarly, enforcing posted parking hours for spaces in the right-of-way, rather than allowing all day parking, will ensure EV charging stations experience turnover and are available to potential users throughout the day while supporting adjacent businesses

Location in downtown Redmond

The consultants believe the ideal location for a charging station or stations in the downtown would be along the northern edge of the City Hall lot (Block 45: Evergreen between SW 7th and 8th). The lot is well located to retail, City Hall and the Park. The north block face is highly visible and stations could be further identified with signage. Most importantly, vehicle charging stalls here can serve both long and short-term stays without tying up on-street stalls. The City also owns the lot, which allows for control and timeliness for installing. Optional off-street locations (that would accommodate short and long

[26] http://www.huffingtonpost.com/2012/10/23/electric-car-charging-stations_n_2002448.html

term stays) include the City owned portion of Block 47 (@ SW Forest and 5th) or the private Block 39 lot (@ SW 5th and Evergreen). Each of these off-street locations is located within the "high occupancy node" identified in the 2012 Downtown Parking Study, indicating high use of the parking system within this node.

On-street locations are more difficult to recommend as the goal would be to put them in areas that allow for high visibility and where the customer "wants to be." That would suggest placing them on the block faces on 6th Avenue, between Deschutes and Forest. Unfortunately, it is these block faces that are most heavily occupied (85% or greater) throughout the day. Initial use of such stations will likely be low, until ownership of electric plug in vehicles becomes more prominent, meaning an on-street station will have lower usage than a typical on-street stall. This will reduce (for some period of time) the overall capacity for parking on a block face that hosts a charging station.

Nonetheless, it would appear that an ideal location for on-street space(s) would be one or both of the block faces on SW Evergreen between 6th and 7th. Each of these block faces is centrally located in the high occupancy node and have current peak hour occupancy rates of less than 85%.

As to hotel and overnight users, the consultant would recommend discussions with area hotels to separately initiate EV programs at their sites.

IX. SUMMARY

Shared parking

There are opportunities for sharing of underutilized parking supply that could prove beneficial to near and mid-term visitor growth. The most attractive (based on current stall availability) are the Library (Block 27), US Bank (Block 30) and Hardware Sporting Goods (Block 39). City Hall is also a possible site, but measures to transition existing employees off the site, to create room for visitor growth would need to be explored.

Four potential sites for future garage development were evaluated. Net new supply that could be developed on individual sites ranged from 103 to 194 stalls at a cost of $5.08 - $7.68 million, with additional cost for ground floor retail. Only one of the four sites is in public ownership.

Parking demand: General mixed-use

Parking demand in the downtown ranges between 1.23 and 1.54 stalls per 1,000 SF of mixed use development. With a 15% buffer, demand raises to 1.41 to 1.77 stalls per 1,000 SF. The City can use these numbers to estimate the minimum amount of parking that would be necessary to support new growth in the downtown over time. As a rule of thumb, the impact of new development in downtown will generate a demand impact of 14 to 18 stalls for every 10,000 net square feet of development, exclusive of any peak hour parking stalls lost as a result of such development.

Parking Demand: Hotel and Movie Theater

The impact of adding 48 rooms to the New Redmond Hotel will be in the range of 48 stalls in the peak hour. Given that the parking demand peak for a hotel is in the late afternoon and evening hours, the City and developer should consider opportunities to share with existing parking supply near the hotel which is currently underutilized in the evenings.

The City does not have specific screen total or seating capacity numbers for a potential movie theater development at the current City Hall. Nonetheless, research on movie theaters (particularly in downtown settings) indicate parking demand estimates at 0.16 – 0.26 stalls per patron seat. As such, a hypothetical 350 movie theater would generate parking demands of between 56 and 91 stalls. It should be noted that the upper end number is based on ITE estimates, which have been shown to be inflated in numerous studies. Also, like the hotel, movie theater parking peaks occur much later in the day (5 PM – 8 PM), enhancing the opportunity to build less and use existing supplies.

EV Charging

The most efficient site for location of EV charging station(s) is the City Hall lot. It is located within the high occupancy node, in City ownership, well located and can serve both short and long-term users. On-street locations were identified, but are not seen as desirable as the off-street location given issues related to on-street parking capacity, turnover and management/enforcement.