

APPENDIX

A

TECHNICAL MEMO #1:
EXISTING CONDITIONS ANALYSIS



Final Memo #1: Newberg Downtown Improvement Plan Existing Conditions Analysis

Prepared for

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1. INTRODUCTION

Background and Purpose

This Existing Conditions Analysis memo summarizes the contextual background informing the preparation of Newberg’s Downtown Improvement Plan (NDIP, or Plan). This report is based upon the review of data provided by the City of Newberg, research conducted by members of the project team, and observations from a walking tour of the study area taken with City staff and the Project Management Team on August 27, 2015. The purpose of this report is threefold:

- To summarize and briefly analyze the existing conditions and issues within the study area associated with land use, transportation, parking, infrastructure, urban form, and the built environment.
- To summarize the planning and regulatory context of this project and to highlight those policy, planning, and regulatory requirements that may have an impact upon the NDIP.
- To briefly highlight the potential opportunities and constraints posed by the existing conditions within the study area.

A companion report will address the overall economic and market conditions present within the study area. Taken together, these two assessments of current conditions will inform the work of the community to identify opportunities and establish a future vision and concepts for improving downtown Newberg.

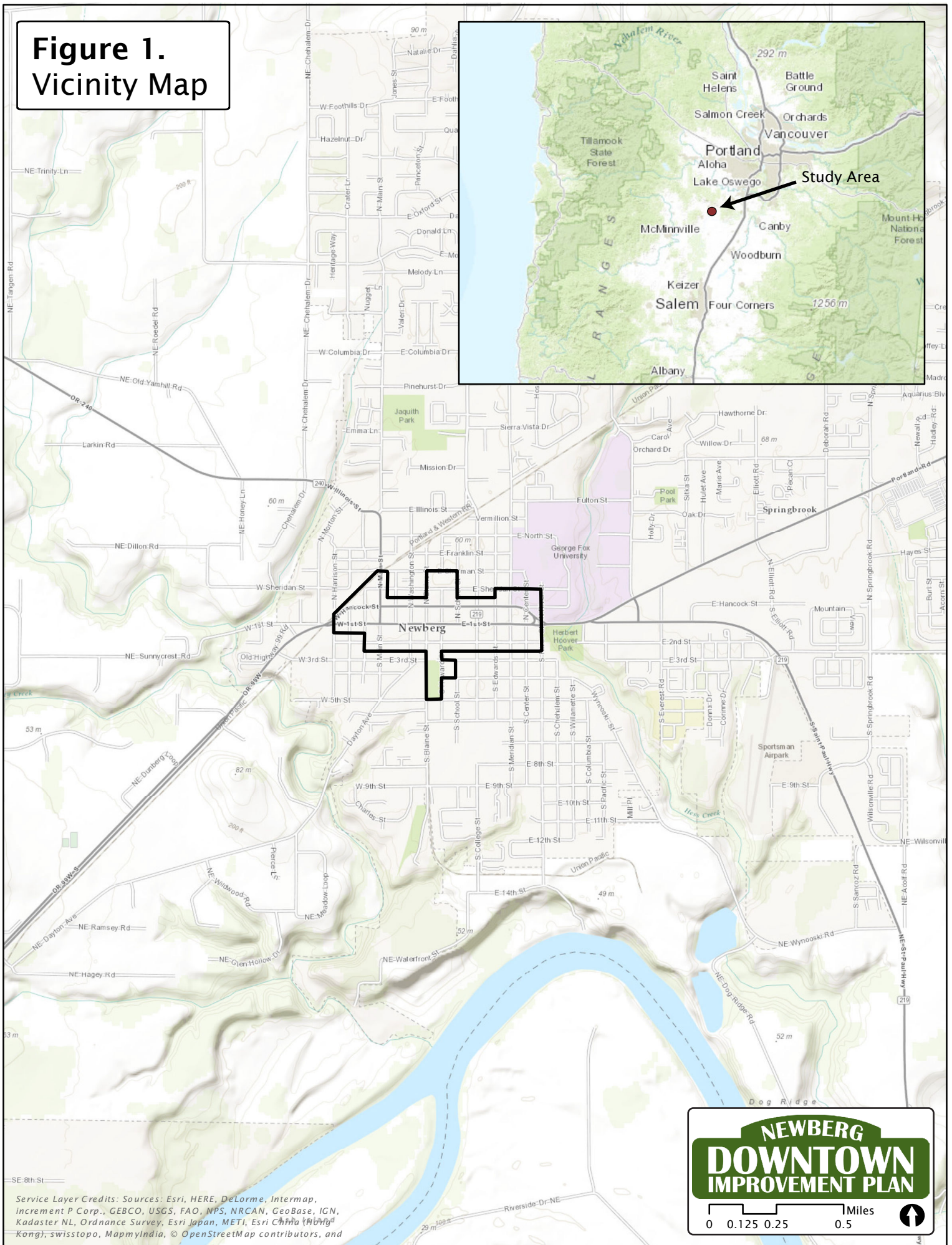
Report Organization

This report summarizes the contextual policy framework and existing conditions found within the study area for the topic areas of transportation, public facilities, public parking, land use, and urban design. Individual memoranda providing additional detail addressing the specific topics are attached as appendices to this report.

Study Area

The NDIP is focused upon a study area consisting of approximately 65 acres (see Figure 1) and is generally bordered by Harrison Street on the west, Sheridan Street on the north, River Street on the east and 2nd Street to the south. The study area is bisected by three important state highways—99W (running east to west), 219 (running north to south), and 240 (running north to south). Figure 1 illustrates the project boundary for the NDIP.

**Figure 1.
Vicinity Map**



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and

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0 0.125 0.25 0.5 Miles

2. TRANSPORTATION SYSTEM

2.1 Policy Framework

The following section summarizes relevant transportation policies for downtown Newberg as reported in the ongoing Newberg Transportation System Plan (TSP) Update.¹ More information is available in Appendix A.

Newberg TSP Update Transportation Goals

The following five transportation goals were used during the TSP update process:

- Goal 1: Maintain or improve access to existing properties and employment areas; improve freight traffic and/or minimize downtown trips for through traffic; have minimal impact on adjacent properties.
- Goal 2: Emphasize visual and aesthetic qualities in their design; minimize any potential energy, social, environmental, and economic impacts; improve rail, water, and air transportation systems where possible.
- Goal 3: Enhance access for emergency response; include improvements meant to reduce crash frequency and severity and/or to enhance pedestrian/bicyclist safety.
- Goal 4: Include complete street² principles with both vehicle and pedestrian/bicycle improvements; improve the connectivity of the street and/or sidewalk system; improve access to public transit.
- Goal 5: Provide the most cost effective improvement option and identify stable funding sources for improvements; repair, maintain, and/or improve existing facilities and protect needed right-of-way for future projects; or constructed as a mitigation requirement by private development.

Highway Classification and Designation

Oregon Highway Plan (OHP) Policy 1A categorizes state highways for planning and management decisions. Updates to the TSP will support the existing highway classifications and will enhance the ability of the highways in Newberg to serve transportation needs consistent with their defined functions. The following classifications apply to state facilities in Newberg:

- OR 99W (Pacific Highway West, No. 91/1W) is classified as a Statewide Highway, part of the National Highway System (NHS), a Truck Route, and a Freight Route. Statewide Highways primarily serve interurban and interregional travel and strive to provide safe and efficient, high-

¹ Newberg TSP Volume 2: Technical Memorandum 2 – Background Document Review for Newberg TSP Update

² The following description of complete streets is provided by the National Complete Streets Coalition: “Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations...” For more information: <http://www.smartgrowthamerica.org/complete-streets/complete-streets-fundamentals/complete-streets-faq>, October 2015.

speed operation with minimal access and interruption. Operation may be affected by special land use designations described below.

- OR 240 is classified as a District Highway. District Highways function as county and city arterials or collectors and provide connections between small urbanized areas. The goal of these facilities is to provide moderate to high-speed operation in rural settings and moderate to low-speed operation in urbanized areas.
- OR 219 is classified as a District Highway, except for the portion where it joins with OR 99 (MP 20.19 to 20.73) where it becomes a Statewide Highway and truck route.
- OR 18 Newberg-Dundee Bypass (under construction) is expected to be classified as a Bypass and Expressway. Expressways are characterized by limited access. The primary purpose of Expressways is to serve interurban travel and provide for high-speed and high-volume traffic with minimal access and interruption.

Special Designations

OHP Policy 1B permits special highway segment designations where specific types of land use patterns foster compact development and in areas where the need for appropriate local access outweighs the considerations of highway mobility. Currently, there are no Special Transportation Area (STA) designations on OR 99W in Newberg. Such designations may be considered during the TSP update or subsequent planning processes to acknowledge that the highway (and couplet) serves as some of Newberg's primary streets (including retail store-fronts in the downtown area) and that mobility and through traffic needs must be balanced with local access needs.

State Highway Freight System

OHP Policy 1C addresses the need to balance the movement of goods and services with other uses. It states that the timeliness of freight movements should be considered when developing and implementing plans and projects on freight routes. Within Newberg, OR 99W is classified as a Federal Truck Route and an Oregon Freight Route. This classification could change with the completion of the Newberg-Dundee Bypass.

Roadway Mobility Targets

There are two primary methods used to rate traffic mobility: a numeric volume to capacity (v/c) ratio and a level of service (LOS). The v/c ratio is a decimal representation (between 0.00 and 1.00) of the proportion of capacity that is being used (i.e., the saturation) at a turn movement, approach leg, or an intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection or movement.

A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, congestion increases and performance is reduced. If the ratio is greater than 1.00, the turn movement, approach leg, or intersection is oversaturated and usually experiences excessive queues and long delays.

The LOS is a "report card" rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. LOS D and E are progressively worse operating conditions. LOS F represents conditions where average vehicle delay has become excessive and demand has exceeded capacity. This condition is typically evident in long queues and delays.

OHP Policy 1F sets mobility targets for ensuring a reliable and acceptable level of mobility on the highway system.³ The OHP assesses mobility in terms of the v/c ratio. The mobility targets are applicable to long-range planning for state highways in Newberg during peak hour operation,⁴ pursuant to Policy 1F, Table 6.

It is anticipated that the findings of the transportation analysis for the TSP update may support a change of mobility targets for OR 99W within the city; the TSP update process is an opportunity to develop and apply alternative mobility targets. The Oregon Transportation Commission (OTC) must approve proposed alternative mobility targets on state highways.

The City of Newberg TSP⁵ states that LOS D is typically regarded as the minimum operational threshold for signalized intersections, while LOS E is the minimum operational threshold for unsignalized intersections.

The motor vehicle conditions in Newberg vary based on the time of year. Operations at the four downtown study intersections analyzed in the TSP Update, listed in Table 1, were evaluated during the p.m. peak hour of the peak seasonal period (30th highest annual hour) and the average weekday. All locations currently meet mobility targets.

Table 1. Intersection Operations (2012 p.m. peak)

Intersection	Mobility Target	Peak Seasonal		Average Weekday	
		V/C Ratio	LOS	V/C Ratio	LOS
Hancock Street (99W)/Main Street	0.85	0.70	B	0.64	B
Hancock Street (99W)/College Street	0.85	0.76	B	0.70	B
1st Street (99W)/Main Street	0.85	0.57	B	0.52	B
1st Street (99W)/College Street	0.85	0.58	B	0.53	B

Access Management on State Highways

The Oregon Access Management Rule⁶ (OAR 734-051) strives to balance the safety and mobility needs of travelers along state highways with the access needs of property and business owners. ODOT’s rule

³ In particular, the mobility targets in Table 6 of OHP Policy 1F are applicable to state facilities in Newberg and are considered standards for purposes of determining compliance with Transportation Planning Rule (OAR 660-012).

⁴ OHP Policy 1F uses the 30th highest annual hour as the peak hour. Alternatives to the 30th highest annual hour may be established as part of adopting an alternative mobility target.

⁵ Newberg TSP (2005), Section 3

sets guidelines for managing access to the state’s highway facilities in order to maintain highway function, operations, safety, and the preservation of public investment consistent with the policies of the 1999 OHP. Access management rules allow ODOT to control the issuing of permits for access to state highways, state highway rights of way, and other properties under the State’s jurisdiction.

Table 2 identifies the minimum private access spacing standards for streets in Newberg. Within developed areas of the city, streets not complying with these standards could be improved with strategies that include shared access points, access restrictions (through the use of a median or channelization islands), or closed access points as feasible. New streets or redeveloping properties must comply with these standards, to the extent practical (as determined by the city engineer).

Table 2. Access Spacing on Newberg Streets

Roadway Functional Classification	Minimum Public Street Intersection Spacing (feet)*	Frontage Required per Additional Driveway** (feet)	Driveway Setback from Intersecting Street† (feet)
ODOT Statewide Highway		NA	NA
Speeds 30 & 35 (Urban)	500		
Speeds 40 & 45 (Urban)	800		
Major arterial		NA	NA
Urban (outside Central Business District)	500		
Central Business District	200		
Minor arterial			
Urban (outside Central Business District)	300	200	150
Central Business District	100	200	150
Major collector	200	150	100
Minor collector	150	75	100
Local streets	100	75	50

*Street Spacing measured centerline to centerline

**Requirement is the minimum frontage required per additional driveway beyond the first. Where two driveways are constructed, at least one curb parking space shall separate each driveway approach.

†The setback is based on the higher classification of the intersecting streets. Measured from the curb line of the intersecting street to the beginning of the driveway, excluding flares. If the driveway setback listed above would preclude a lot from having at least one driveway, including shared driveways or driveways on adjoining streets, one driveway is allowed as far from the intersection as possible.

Improvements on State Highways

The Highway Design Manual⁷ (HDM) provides uniform standards and procedures for ODOT and is in general agreement with the 2001 American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets*. Some key areas where guidance is provided are the location and design of new construction, major reconstruction, and resurfacing,

⁶ Access Management Rule: http://arcweb.sos.state.or.us/rules/OARS_700/OAR_734/734_051.html

⁷ ODOT Highway Design Manual: http://www.oregon.gov/ODOT/HWY/ENGSERVICES/hwy_manuals.shtml

restoration or rehabilitation (3R) projects. The HDM should be used for all projects on state highways in Newberg to determine design requirements, including the maximum allowable v/c ratios for use in the design of highway projects.

2.2 Existing Conditions Summary

The completion of the first phase of the Newberg-Dundee Bypass will provide an alternate route for regional traffic that currently passes through downtown Newberg on OR 99W. The initial 20 percent reduction⁸ in traffic along the existing OR 99W couplet (1st Street and Hancock Street) provides an opportunity for the community to consider options for enhancing the downtown area. The Newberg TSP Update explored several concepts for reducing travel lanes through downtown. The City Council supported the concept of removing a lane of traffic along both 1st Street and Hancock Street, resulting in two lanes in each direction. The NDIP will further develop this potential concept.

As state highways, OR 99W (1st Street and Hancock Street), OR 219 (College Street), and OR 240 (Main Street) are under the jurisdiction of ODOT which controls decisions related to traffic control, signing, striping treatments, and access location. These requirements are maintained through various state policies. ODOT would continue to control and maintain the existing 1st-Hancock couplet (following the Bypass opening) without a formal agreement to transfer authority to the City. However, some portions of the highways through downtown are “resoluted”⁹ and ODOT only manages between each curb, including 1st Street (Harrison Street to River Street), Main Street (1st Street to Illinois Street), and College Street (1st Street to Vermillion Street). ODOT has acquired in fee right of way and manages from right-of-way line on either side of the street along Hancock Street.

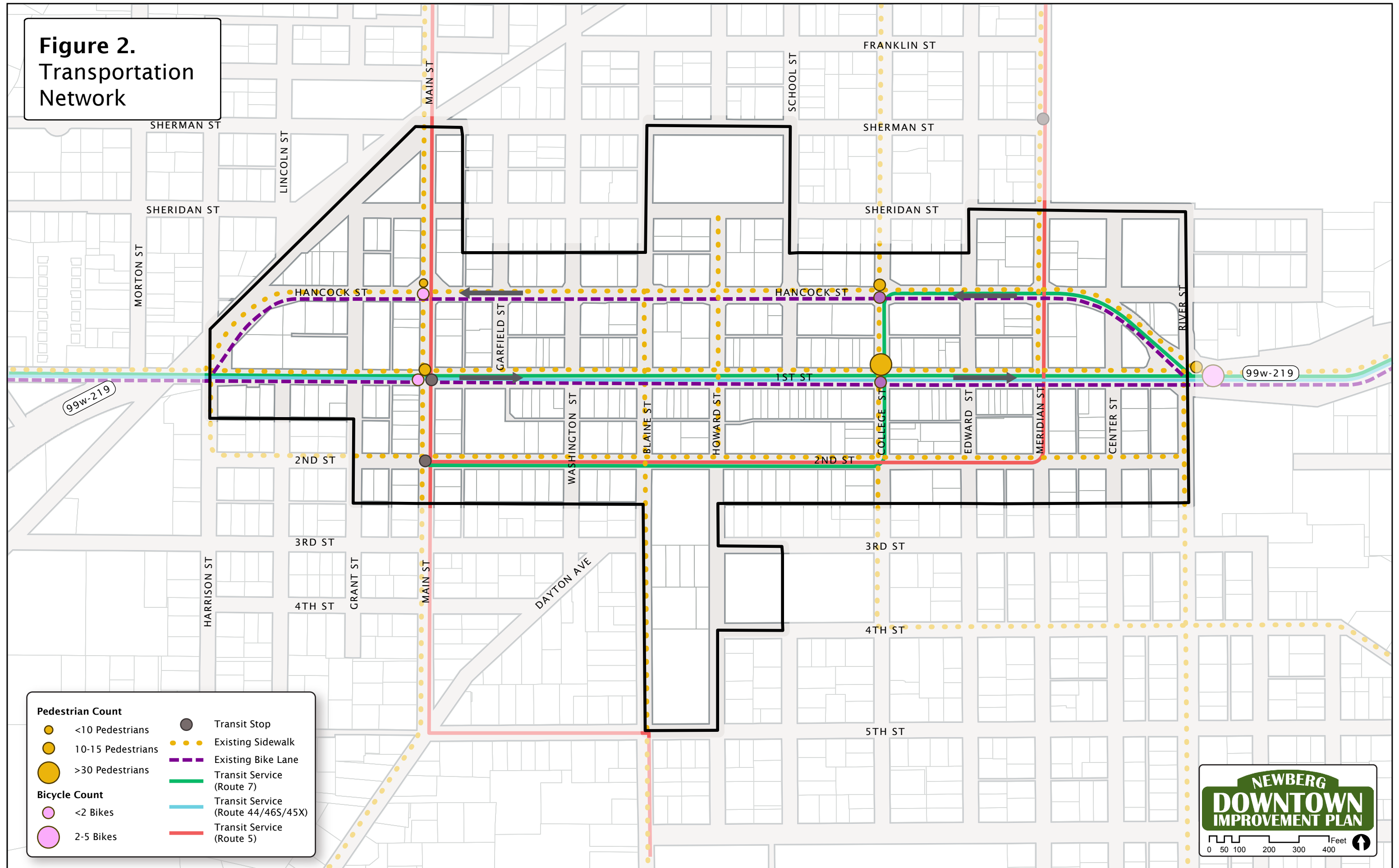
The current transportation conditions through downtown Newberg vary by mode (see Figure 2). As a state highway, OR 99W serves regional movement with three travel lanes in each direction along the 1st-Hancock couplet. Traffic signals along the corridor are timed to facilitate the movement of vehicular traffic and freight along the corridor, and the four intersections analyzed in the TSP currently meet ODOT mobility targets. Due to the traffic volume and width of the corridor, crossing the street at unsignalized intersections can be difficult for both motor vehicles and pedestrians/bicyclists that wait for gaps to travel north-south. The downtown area is well connected with sidewalks for pedestrian travel. Bicycle lanes are provided along the couplet and some connecting roadways. Transit service is provided along the couplet, but local and regional routes have limited service frequency with headways of one hour or longer. Additionally, transit stop information and other amenities are limited.

⁸ Traffic reduction based on average daily traffic volumes. *Memo: Newberg-Dundee Bypass - Phase 1 Technical Report Addendum*, prepared by Kittelson & Associates, September 2011.

⁹ Email from Gerry Juster, ODOT, July 13, 2015.

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Figure 2.
Transportation
Network



- Pedestrian Count**
- <10 Pedestrians
 - 10-15 Pedestrians
 - >30 Pedestrians
- Bicycle Count**
- <2 Bikes
 - 2-5 Bikes
- Other Features:**
- Transit Stop
 - ⋯ Existing Sidewalk
 - Existing Bike Lane
 - Transit Service (Route 7)
 - Transit Service (Route 44/46S/45X)
 - Transit Service (Route 5)

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Opportunities and Constraints

Based on the review of transportation policies and the state of the existing and planned transportation system, the following opportunities and constraints were identified.

Opportunities

- Phase 1 of the Newberg-Dundee Bypass will shift regional traffic away from downtown Newberg and reduce traffic volumes along OR 99W.
- Reallocation of the current couplet configuration (such as removing a travel lane in each direction) may provide additional space for other amenities and opportunities.
- Removing a lane of traffic in each direction could reduce the distance needed to cross OR 99W and could make the area more welcoming for pedestrian and bicycle travel.
- ODOT has jurisdiction of OR 99W and could be a partner in developing, funding, and implementing future strategies and improvements along the corridor.
- The rail corridors (north-south on Blaine Street to the riverfront and east-west in Willamette & Pacific line) have not been analyzed through this plan but may provide future opportunities.
- Changing designation along the corridor (such as adding STA designation or removing freight designation/truck route from 99W due to the Bypass) would provide additional flexibility for vehicular mobility and enhancement for other modes.

Constraints

- While Phase 1 of the Newberg-Dundee Bypass will initially reduce volume on OR 99W downtown, additional local and regional growth will later return traffic to current levels within about 15 years.¹⁰
- ODOT has jurisdiction of OR 99W and has authority for future decisions along the corridor.
- Under current highway designations and state policies, OR 99W may require design exceptions or other considerations to achieve potential transformations that are identified through the NDIP.
- Existing development along the highway corridor constrains the available right of way for serving all modes of travel.

¹⁰ Estimates based on Phase 1 traffic projections east of College Street found in Table 1. *Memo: Newberg-Dundee Bypass - Phase 1 Technical Report Addendum*, prepared by Kittelson & Associates, September 2011.

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3. PUBLIC FACILITIES

3.1 Policy Framework

The water distribution, storm sewer, sanitary sewer, and transportation systems must be designed and maintained according to local, state and federal guidelines and regulations. The 2015 City of Newberg Design & Construction Standards Manual in concert with the Master Plans for each of these systems outline the policy and design standards applicable in the design of new facilities or revisions to the existing systems. The 2004 City of Newberg Water Distribution System Plan,¹¹ 2014 City of Newberg Stormwater Master Plan,¹² 2007 City of Newberg Sewerage Master Plan Update,¹³ and 2015 Newberg Transportation System Plan Update Draft¹⁴ each provide policy guidance.

3.2 Existing Conditions Summary

This section provides a summary of public facilities information. Additional details are available in Appendix B.

Water Distribution System

The water distribution system serving the Newberg downtown area is well established. There are no specific projects within the study area identified in the City of Newberg Water Distribution System Plan to make improvements to the system, though the plan recommends replacing aging pipelines as part of the annual City budgeting process. One location identified by the City of Newberg as having insufficient pressure for future development is the pipe on the south side of 1st Street.

Storm Sewer System

The downtown stormwater system is concentrated on Hancock Street, 1st Street, and Howard Street. The City of Newberg Drainage Master Plan identified a number of observed drainage problem areas, as reported by City staff. The plan identified one project within the study area. This project, located from Hancock near Howard Street, diagonally to Blaine Street, and only partially within the study area, recommends decommissioning a storm sewer line that runs on private property and upsizes surrounding lines to accommodate future anticipated flows.

Sanitary Sewer System

Oriented on a grid system in downtown Newberg, the sanitary sewer system is well established to serve the study area. One of four named sanitary trunklines in the city, the 21-inch-diameter Wyooski Trunkline cuts through the east end of the study area. The City of Newberg Sewerage Master Plan

¹¹ 2004 City of Newberg Water Distribution System Plan, CH2MHill, December 2004.

¹² City of Newberg Stormwater Master Plan, Brown and Caldwell (Alissa Marie Maxwell), June 5, 2014.

¹³ City of Newberg Sewerage Master Plan Update 2007, Brown and Caldwell (James R. Hansen), June 21, 2007.

¹⁴ Newberg Transportation System Plan Update, DKS Associates, September 21 2015 DRAFT version.

recommends upsizing a portion of this trunkline in the study area from 21 inches to 24 inches to increase its capacity for modeled 2040 flows.

Transportation System

Under a combination of state and local jurisdiction, the downtown Newberg roadway system is a well-established grid system providing connectivity for automobiles, bicycles, and pedestrians. The Newberg TSP Update identifies a number of recommended future projects, categorized by transportation mode and classified by the likelihood they will receive funding based on analysis and forecasting of funding through 2035.

Opportunities and Constraints

Potential opportunities for and constraints to development in the Newberg Downtown area were identified through the existing conditions analysis and conversations with City staff. The following opportunities and constraints were identified:

Opportunities

- ODOT jurisdiction over some or all of the 1st Street and Hancock Street (99W) right-of-way can be beneficial from a partnering perspective for future development in the corridor. Communication of goals and objectives and formulation of mutually beneficial solutions with regard to the future of the corridor may be keys to successful partnering.

Constraints

- The locations of private underground utilities and abandoned underground oil storage tanks in the downtown area are uncertain. If uncovered during construction, they could present challenges not previously foreseen and add to project costs for relocation, remediation and removal.
- Sidewalk vaults in unconfirmed locations could inhibit or constrain roadway reconstruction, especially widening.
- City staff noted that there have been abandoned railroad ties discovered during past construction projects embedded in roadways in the downtown area. Wooden railroad ties encased in concrete approximately six inches under the asphalt are known to be located in 1st Street west of Harrison Street and at Meridian Street in the center of the roadway.
- The existing water lines on the south side of 1st Street are currently undersized and unable to support any new service on that line. This would hinder building development in the area served by the water line.
- Coordination with the rail owner and Portland & Western Railroad (which has an expired franchise agreement) is required for work on or in Blaine Street due to the active rail line in the right-of-way.

4. PUBLIC PARKING

4.1 Policy Framework

Developments that occur in the downtown area are subject to the design and development guidelines outlined in Chapter 15.440 of the Development Code. Generally, new commercial development targeted for the C-3 zone (Downtown) is not required to provide off-street parking. If a builder chooses to provide off-street parking, the parking is subject to minimum landscaping requirements per City lot design guidelines. In 2015, the City began a new program called the Newberg Street Seat Pilot Program. The program allows eating/drinking establishments to apply for a semi-permanent “street seat” which converts on-street parking spaces to additional outdoor seating for restaurants.

4.2 Existing Conditions Summary

The consultant team assembled a complete inventory of all parking located within the study area. This section presents a summary, while additional details are available in Appendix C. The inventory was initiated using a combination of aerial maps and Google Maps Streetview imagery. Two draft Excel databases were developed from this assessment: one for the on-street and one for the off-street system. The on-street database identifies all curbside parking within the study area by block face and by stall type (i.e., 15-Minute, 2-Hour, Handicap, etc.).

The off-street database was populated with information derived from multiple on-site inspections by consultant team surveyors. Inspections included visits to sites, physical counts of parking stalls, supportive research on property (site) ownership, and type of parking identified (e.g., retail, office, residential, etc.). Table 3 provides an accounting of downtown Newberg’s on- and off-street parking system.

Table 3. 2015 Newberg On- and Off-Street Parking Inventory

Stalls by Type	Total Stalls	% of Total Stalls
10 Minutes	3	<1%
15 Minutes	14	1.5%
30 Minutes	1	<1%
1 Hour	6	<1%
2 Hours	267	28.3%
No Limit	640	67.8%
Handicap	9	1.0%
Theater	3	<1%
Reserved	1	<1%
Subtotal	944	100%
<i>Total On-Street Stalls</i>	944	45.1%
<i>Total Off-Street Stalls</i>	1,146	54.8%
Total Stalls	2,091	100%

The combined downtown parking system for Newberg includes 2,090 stalls nearly evenly split between on-street (45 percent of all spaces) and off-street (55 percent of all spaces) options. The on-street system is comprised of nine different stall types, the majority (68 percent) of which are unregulated, with no time restriction. An additional 28 percent of stalls are 2-Hour stalls, primarily located along 1st Street and the south side of Hancock Street. The remainder of stall types is a mix of 10- to 60-Minute stalls, Handicap, Theater, and Reserved stalls.

Table 4 provides an aggregated list of off-street parking lots by their observed use type.

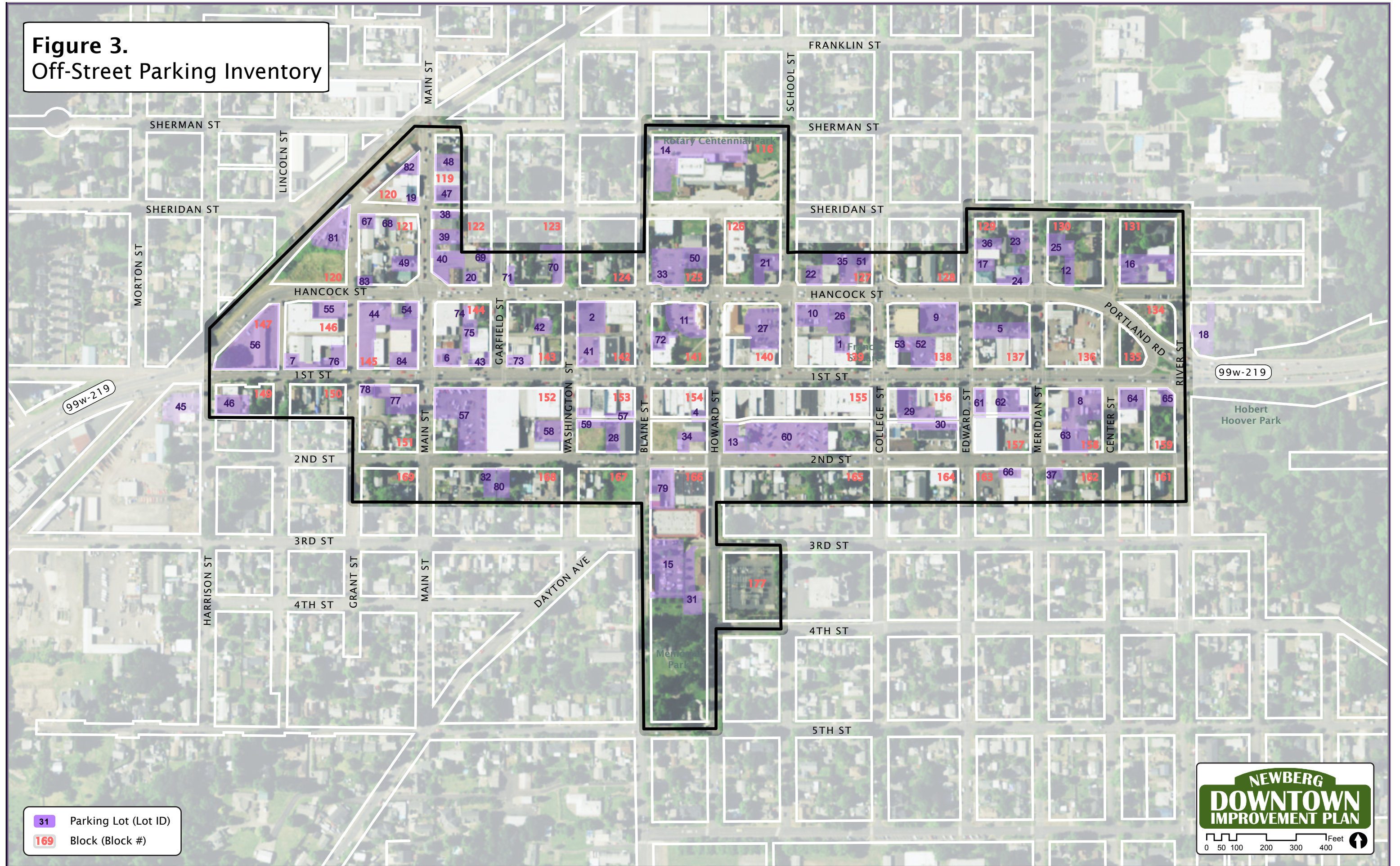
Table 4. Downtown Newberg Off-Street Parking Inventory by Use Type

Use Type	Number of Lots	Stalls	% of Total
Auto	4	36	3%
Bank	3	48	4%
Church	2	18	2%
Civic	5	121	11%
Institution	1	32	3%
Medical	2	24	2%
Office	13	146	13%
Public	3	131	11%
Residential	3	33	3%
Restaurant	10	128	11%
Retail	20	279	24%
Service	14	98	9%
Unknown	5	59	5%
Total	85	1,146	100%

The table above shows a thematic interpretation of how parking is allocated based on observed land use types based on parking surveyor observation. Nearly a quarter (24 percent) of off-street parking is dedicated to retail uses, 14 percent serves office uses, and 11 percent each is dedicated to civic, restaurant use, and public (general) uses.

Figure 3 shows locations and capacities of off-street parking lots. More information about these lots can be found in Appendix C.

Figure 3.
Off-Street Parking Inventory



31 Parking Lot (Lot ID)
169 Block (Block #)

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0 50 100 200 300 400 Feet

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Opportunities and Constraints

Downtown Newberg is a quintessential “main street” town with the majority of its retail and restaurant business focused on 1st Street (and Hancock Street). 1st Street provides for a pleasant pedestrian experience with its scarcity of off-street parking lots and with zero-lot-line buildings fronting the sidewalks. Hancock and 2nd Streets are secondary retail streets with more punctuated building frontages interspersed with surface parking lots. The on-street parking on 1st Street and perpendicular streets is nicely formatted with individual stalls delineated with pavement striping, which is a customer-friendly treatment. In general, on-street parking signage is clear to the user, but the system could benefit from design standards for how the frequency of signage is deployed in the right of way.

Opportunities

- Parking activity downtown at first glance appears brisk, particularly on-street—a visitor’s first choice in parking—while in general, the off-street system has much greater stall availability.
- Consequently, the off-street lots, in cooperation with willing property owners, present an opportunity for additional shared use supply. For example, there are at least two downtown banks that are closed on weekends that could provide additional visitor (or employee) parking with proper signage.
- Another opportunity is the availability of select developable parcels in the study zone, which could provide for a branded district parking facility.

Constraints

- The potential for shared surface parking lots must meet the requirements of Newberg Development Code outlined in 15.440.050 (A and B).
- Any new or redeveloped parking in downtown would also be required to meet the landscaping/coverage requirements in the Development Code.
- The City may want to consider the allowance of more urban style treatments in the C-3 zone to create visual separation of parking, such as an urban fence or similar treatments that maximize parking capacity and also provide an urban aesthetic to the district.

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5. LAND USE AND URBAN DESIGN

5.1 Policy Framework

Land use planning in Oregon is governed by 19 statewide planning goals. State law requires each city and county to have a comprehensive plan consistent with the goals as well as zoning and ordinances needed to put the plan into effect. The local comprehensive plan guides a community's land use, conservation of natural resources, economic development, and public facilities. It includes a policy element that sets forth the community's long-range objectives and the policies by which it intends to achieve them. The policy element of each community's plan is adopted by ordinance and has the force of law.

The City of Newberg's Comprehensive Plan was adopted by the City Council in 1979 and has been amended numerous times since then. There are many land use policies that apply in general to the NDIP. Policies that mention the downtown area specifically include:

- Section H. The Economy. Policy 3.a. "The City shall encourage the retention of the downtown core as a shopping, service and financial center for the Newberg area. New commercial developments shall be encouraged to locate there."
- Section J. Urban Design. Policy 5-Downtown Policies d. "The City shall discourage the use of the central business district for nonintensive land uses or uses which have a low floor area to site size ratio."
- Section J. Urban Design. Policy 5-Downtown Policies e. "The City shall encourage a higher utilization of downtown space, encouraging intensive use of all building levels."
- Section J. Urban Design. Policy 5-Downtown Policies f. "A concerted effort should be made to revitalize the central business district through rehabilitation or redevelopment of existing areas."
- Section J. Urban Design. Policy 5-Downtown Policies h. "Benches, street trees, and other pedestrian-scaled amenities shall be planned for and encouraged in the downtown area."

Urban design deals with the larger scale of groups of buildings, streets and public spaces, whole neighborhoods and districts, and entire cities, with the goal of making urban areas functional, attractive, and sustainable. Because urban design transects many aspects and categories found in the City of Newberg's Comprehensive Plan, the following additional sections are also relevant.

- Section G. Open Space, Scenic, Natural, Historic and Recreational Resources. Polices 1, 2 and 3.
- Section H. Housing Goal: "To provide for diversity in the type, density and location of housing within the City to ensure there is an adequate supply of affordable housing units to meet the needs of City residents of various income levels." (Ordinance 2006-2634)
- Section K. Transportation:
 - Goal 5: "Maximize pedestrian, bicycle and other non-motorized travel throughout the City."
 - Goal 6: "Provide effective levels of non-auto oriented support facilities (e.g. bus shelters, bicycle racks, etc.)"

Goal 8: “Maintain and enhance the City’s image, character and quality of life.”

Goal 9: “Create effective circulation and access for the local transportation system.”

- Section L. Public Facilities and Services Goal, “To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban development.”
- Section M. Energy, Goal: “To conserve energy through efficient land use patterns and energy-related policies and ordinances.”

There are several land use plans and other documents in addition to the Comprehensive Plan that provide guidance regarding downtown Newberg.

Declared Future for Downtown Newberg in 2020. The Newberg Downtown Association created this document during a visioning workshop in 2001. While not an official City document, it describes some of the community’s aspirations for its downtown. These include aesthetics such as historic street lighting, streetscape amenities and public art, and land uses such as linkages to the riverfront and public parking.

Beyond the Vision: The Chehalem Valley in 2020. This Chehalem Valley strategic plan was a cooperative effort of the City of Dundee, City of Newberg, Chehalem Park and Recreation District, Newberg Public Schools, and Yamhill County. The document mentions downtown development, stating that the City of Newberg is engaged in a plan to revitalize its downtown area and that the Newberg Downtown Coalition and Chehalem Valley Chamber of Commerce are partners in this effort.

Ad Hoc Committee on Newberg’s Future. In 2004, the Newberg City Council created this document to provide a forum for citizen involvement in planning for Newberg’s future land use patterns. The committee made recommendations to help the City Council make future amendments to the comprehensive plan, including one specifically related to the downtown area: “Downtown should continue as a commercial center and should expand.”

City of Newberg Economic Opportunities Analysis (EOA). This analysis was adopted by the Newberg City Council in 2006 and revised in 2013. The City subsequently repealed the 2013 EO in 2015. The EOA includes a list entitled Comprehensive Plan Policies and Recommended Supportive Economic Development Actions. One of these actions recommends the City “develop a Downtown Revitalization Master Plan prior to the construction of the Newberg-Dundee Bypass. Identify funding sources necessary to implement the plan.”

City of Newberg Historic Resource Inventory- 1985 (Updated 1990). An initial inventory of historic properties for the City of Newberg was conducted in 1984 and 1985 and encompassed assets within the city limits of Newberg and the urban growth boundary. A final report was prepared including a historical overview of the city’s development, major historical themes, building types and styles, methodology, the evaluation process, findings, and preservation recommendations. In 1990, the City of Newberg updated the 1985 study documenting the alterations, rehabilitations, and demolitions since the completion of 1985 inventory.

Newberg Street Seat Pilot Program. In 2015 the City of Newberg launched a pilot program allowing eating/drinking establishments located downtown to apply for a semi-permanent street seat (regular or daily occupancy) repurposing on-street parking spaces to add additional outdoor seating for a restaurant so people can stop, sit, and take in the life of the street. The pilot program is limited to six parking spaces.

City of Newberg, Downtown Bike Rack Cost Share Program. Businesses and the City partner in this pilot program to provide more bike racks downtown. The City purchased bike racks within the color range suggested by the Newberg Downtown Coalition’s recommended color palette. Downtown businesses may purchase them, and the City will install and provide long-term maintenance for them.

City of Newberg, Title 15 Development Code, Chapter 15.420 Landscaping and Outdoor Areas. This section of Title 15 provides required minimum standards for landscaping and outdoor spaces, and landscaping and amenities in public right-of-ways.

Downtown Development Plan

The Downtown Development Plan was adopted in 1986 to “guide in the revitalization of the downtown area.” At that time, the City of Newberg was seeing a decline in downtown business since 1970 despite the large increase in population (70 percent) and traffic flow (50 percent). This pattern indicated that the traffic through downtown was stifling the businesses by creating an unsecure shopping environment. However, the City also recognized that this created a potential economic development opportunity if they could control and re-route the traffic.

The plan identified four important assets of downtown Newberg that provide the highest revitalization potential:

1. The 1st Street business district providing a strong core of neighborhood shopping
2. Civic functions being retained within the downtown area
3. Building character of the “main street” environment
4. Market potential of OR 99W

The findings of the transportation analysis conducted in association with the development of this plan concluded that approximately two-thirds of the through traffic did not stop in Newberg. Furthermore, the findings stated through traffic speeds were too high for a downtown setting and that many of the current and future traffic problems would be solved with a bypass, although this would require traffic solutions to offset the negative impacts to the revitalization and redevelopment efforts. The document also includes plans to maximize short-term parking in the core without impacting the residential neighborhoods. Other traffic circulation plan elements included a one-way couplet between Hancock and 2nd Streets and converting 1st Street into a two-way shopping street.

Urban Renewal Plan

The Newberg Urban Renewal Plan was developed and approved by the Newberg City Council in 2001 with the assistance of a 12-member community task force, but was subsequently repealed through voter referendum in 2002. The plan provides goals and objectives to implement development strategies, aimed at eliminating blighting influences in the renewal area, many of which are incorporated into the Newberg Comprehensive Plan. The downtown area is only a portion of the full renewal area.

Major goals of the urban renewal plan included:

- Promote private development and job creation
- Rehabilitate building stock
- Improve streets, streetscapes, and open spaces
- Improve utilities

- Provide adequate parking
- Provide adequate public facilities
- Support the arts, culture, and heritage
- Support other City policy goals

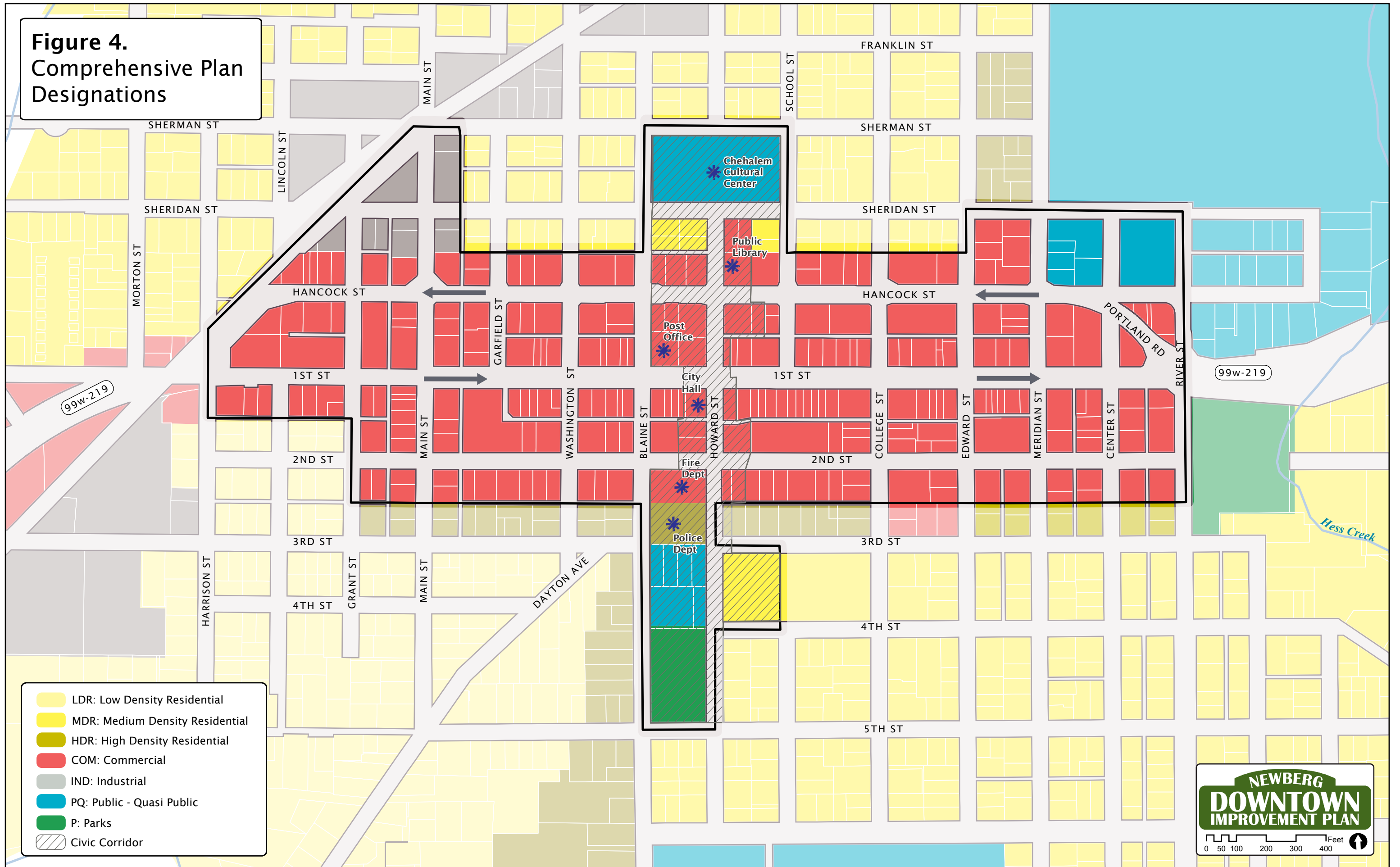
Downtown Transformation Report

The 2014 Downtown Transformation Report was written by the Newberg Downtown Coalition after visioning sessions in 2014. The report was accepted by the Newberg City Council as an advisory document for future planning processes. The report contains many creative ideas for making downtown more pedestrian-friendly, including streetscape improvements and public art programs. The report was accepted by the City Council as an advisory document for future planning efforts.

5.2 Existing and Planned Land Uses

This section provides a summary of the full Land Use Technical Memo in Appendix D. There are 299 tax lots in the study area totaling approximately 65 acres. The primary land use designation in the study area is commercial, as shown in Figure 4. Additional uses include industrial, high density residential, medium density residential, mixed-use, parks, and public-quasipublic (public non-park facilities). Comprehensive plan designations and zoning support most existing land uses, though several lots within the study area are non-conforming. Section 15.205.010 of the Newberg Municipal Code on Nonconforming Uses states “it is the intent of this code to permit these nonconformities until they are removed or abandoned, but not to encourage their survival.”

Figure 4.
Comprehensive Plan
Designations



- LDR: Low Density Residential
- MDR: Medium Density Residential
- HDR: High Density Residential
- COM: Commercial
- IND: Industrial
- PQ: Public - Quasi Public
- P: Parks
- Civic Corridor

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As shown in Table 5, Central Business is the most prominent zone in the area with more than 74 percent of the total acreage. The Central Business District extends north and south of OR 99W from Harrison Street to River Street. Other significant zone designations include Medium Density Residential and Institutional. Areas adjacent to the study area are primarily residential and institutional with some industrial land located along the railroad. A majority of properties within the study area are owned by people residing in Newberg or nearby Oregon communities. The Land Use Technical Memo, Appendix D, includes a table with comprehensive plan and zone designations, development and ownership status, and existing uses.

Table 5. Newberg Study Area by Zone Designation, 2014

Zone	General Location	Approximate Area (acres)	Approximate % of Study Area
Central Business (C-3)	Between E Sheridan and E 3rd Sts. and between Harrison and River Sts.	48.2	74.3%
Medium Density Residential (R-2)	North and south of the Central Business District within the Civic Corridor.	10.1	15.6%
Institutional (I)	Between E Sherman and E Sheridan Sts. and between N Blaine and N School Sts.; Between E Hancock and E Sheridan Sts. and between N Meridian and N River Sts.	1.0	1.5%
Light Industrial (M-2)	Adjacent to P&W Railroad north of OR 99W.	4.6	7.0%
Community Commercial (C-2)	At the east end of the study area adjacent to OR 99W and N Hancock St.	0.7	1.1%
Residential Professional (RP)	Between OR 99W and E Sheridan St and N Meridian and N Center Sts.	0.3	0.5%

Source: Newberg GIS parcel layer data, November 13, 2014 and Cogan Owens Greene.

Current land uses in the study area also are predominantly commercial, as shown in Table 6. Approximately 33 percent of existing uses are classified as commercial and 12.9 percent are parking lots that serve the Central Business District. Other significant uses include single family residential (15.8 percent) and public (12.4 percent). There are 18 vacant lots in the study area, totaling approximately 3.8 acres or 5.8 percent of the total area.

Table 6. Newberg Study Area by Existing Land Use, 2014

Use	Approximate Area (acres)	Approximate % of Study Area
Commercial	21.6	33.2%
Single family	10.3	15.8%
Parking lot	8.4	12.9%
Public	8.1	12.4%
Industrial	3.8	5.8%
Vacant	3.8	5.8%
Park	3.2	4.9%
Multifamily	2.9	4.5%
Institutional	2.6	4.0%
Duplex	0.2	0.3%
Access	0.2	0.3%

Source: Newberg GIS parcel layer data, November 13, 2014 and Cogan Owens Greene.

Zoning code establishes the uses, dimensional standards, design standards, and impact regulations (see Figure 5). Notable provisions for the zoning districts in the study area include:

- Central Business District (C-3).** The predominant zone designation in the study area; there are 257 tax lots zoned C-3 totaling approximately 48.2 acres. These parcels serve as the Central Business District where the greatest concentration of retail sales and business occurs. More than half of the parcels (130) are currently used for commercial purposes. All other existing uses are permitted outright or conditionally and include single- and multi-family residential, industrial, institutional, park, parking lot and public uses. Sixteen of the 257 parcels are vacant. There are no height limits, front setbacks, or lot coverage limits in the C-3 zone, though the design review criterion siting “design compatibility” would affect heights and design. There are design standards for façade details and materials and, in some cases, additional design standards for buildings in the Historic Landmark overlay subdistrict.
- Medium Density Residential District (R-2).** There are 18 tax lots in the study area zoned R-2 totaling approximately 10.1 acres. These parcels lie entirely in the Civic Corridor Overlay (described below) in the center of the study area, just to the north and south of OR 99W. The zone allows for a wide range of dwelling types and styles at an average overall density of nine units per gross buildable acre. Typical housing types include single-family dwellings on small lots; attached single-family, duplex, or multifamily dwellings; and manufactured dwelling parks. The district also is intended to allow low intensity institutional uses. Existing uses in the R-2 zone within the study area are all permitted outright or as a conditional use and include single-family residential, commercial, institutional and park and public uses. There is one nonconforming industrial use in the area—a Portland General Electric substation.
- Institutional District (I).** There are seven tax lots zoned for institutional use totaling approximately 1.0 acre. The district allows large institutional campuses and accessory and

compatible uses. The parcels within the study area include the Rotary Centennial Park/Chehalem Cultural Center and George Fox University Newberg Campus.

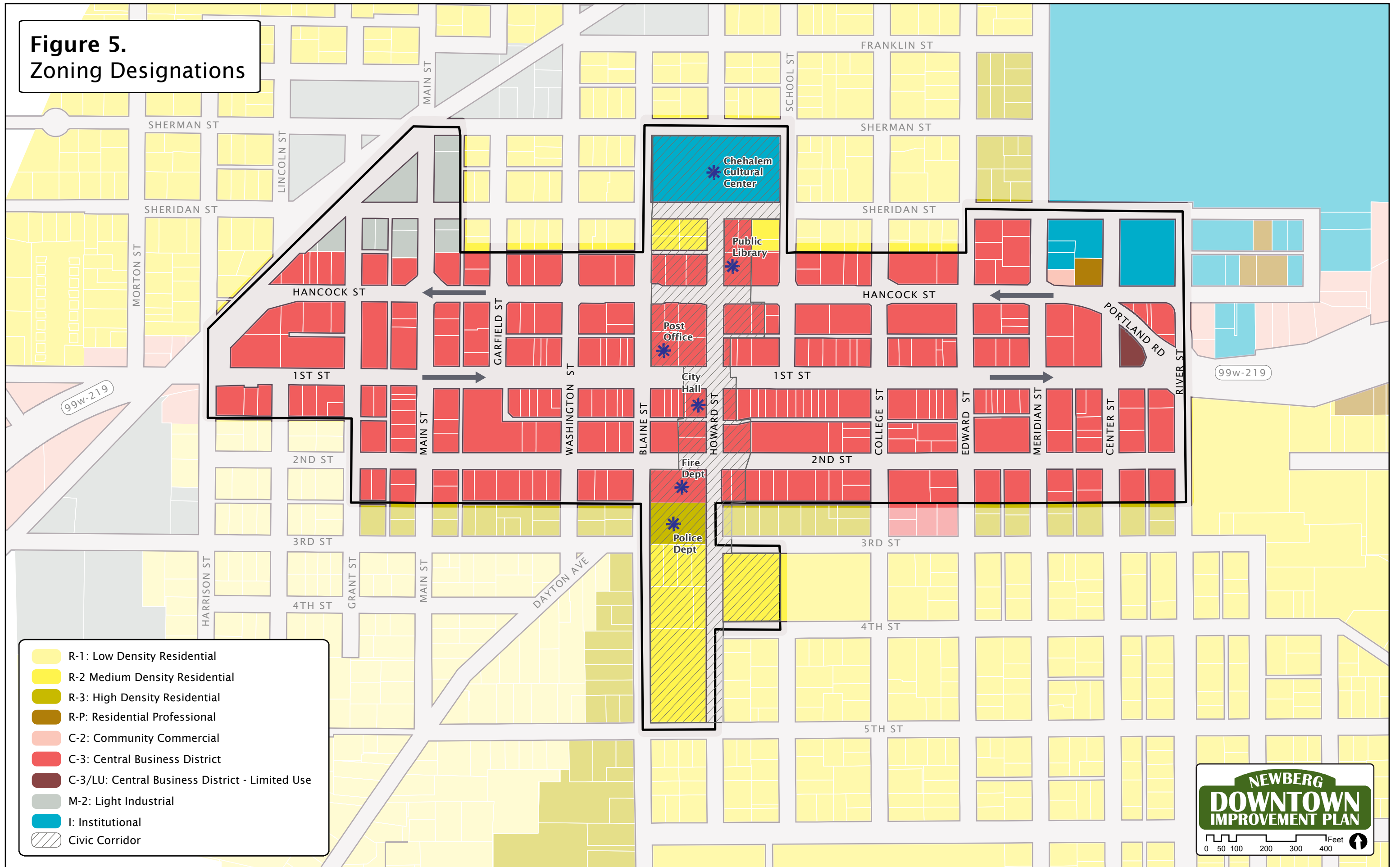
- **Light Industrial District (M-2).** There are 12 tax lots totaling approximately 4.6 acres in the Light Industrial District. These parcels are located at the western edge of the study area, north of OR 99W. The M-2 district allows a wide range of manufacturing and related establishments, typically on sites with good rail or highway access. A majority of existing uses on parcels zoned M-2 within the study area is industrial. Other uses include commercial and parking lot. One parcel has a nonconforming single-family residential use. Two of the parcels are vacant.
- **Community Commercial District (C-2).** There are three tax lots zoned C-2 totaling approximately 0.7 acre. These parcels are located adjacent to Hancock Street at the east end of the study area. The C-2 district allows a wide range of retail sales, commercial services, and offices. All three parcels are currently used for commercial purposes.
- **Residential Professional District (R-P).** There are two tax lots designated R-P totaling 0.3 acre. The R-P zone is a transitional zone that mixes residential, medical, and local business office uses. The zone is intended to be compatible with abutting property. Existing uses on the two parcels are single-family residential and are adjacent to commercial and institutional uses adjacent to Hancock Street near the eastern study area boundary.

The following subdistricts also apply to portions of the study area:

- **Historic Landmarks Subdistrict (H).** Some lots within the study area are subject to the Historic Landmarks Subdistrict. Codes for the subdistrict govern alterations, new construction, and demolitions for designated landmarks. The purpose of the Historic Landmarks Subdistrict is to 1) safeguard historic landmarks; 2) promote the historic, educational, cultural, economic, and general welfare of the public; 3) foster civic pride in the accomplishments of the past; 4) protect and enhance the city's attractions to tourists and visitors; and 5) carry out the provisions of Statewide Planning Goal 5.
- **Civic Corridor Overlay Subdistrict (CC).** Approximately 37 parcels in the center of the study area are within the Civic Corridor Subdistrict. The north-south corridor extends across OR 99W between N Blaine and N School Streets. The CC subdistrict is intended to emphasize the civic and historic character of this portion of downtown Newberg. This is done primarily through design standards, but also by limiting some uses such as automobile sales and service stations.
- **Limited Use Overlay Subdistrict (LU).** There is one parcel in the study area that lies within the LU subdistrict toward the northeast corner of the study area. The City has a sign easement on this undeveloped lot. The limited use overlay is designed to restrict uses permitted in a base zone that may not be allowable or desirable in a particular location or permitting uses prohibited by a base zone in a particular location.

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Figure 5.
Zoning Designations



- R-1: Low Density Residential
- R-2: Medium Density Residential
- R-3: High Density Residential
- R-P: Residential Professional
- C-2: Community Commercial
- C-3: Central Business District
- C-3/LU: Central Business District - Limited Use
- M-2: Light Industrial
- I: Institutional
- Civic Corridor

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Building Stock

The downtown area is the historic and commercial heart of Newberg. The study area along OR 99W predominantly consists of beautiful, early twentieth-century buildings of architectural significance. See Section 5.3 Urban Design Existing Conditions for a description of buildings in the study area.

Opportunities and Constraints

The long term goal for this area is “to create an attractive and vibrant downtown that is unique to the City.” More specific objectives include:

- Establish a pattern and density of complementary and market-feasible residential and commercial development.
- Bring about economic growth.
- Provide an attractive and inviting streetscape and amenities including appropriate parking.
- Create a safe and attractive environment for pedestrians and cyclists.
- Increase the attractiveness, convenience, and capacity for future transit service.
- Capitalize on new commercial and residential development opportunities within and adjacent to the study area.

Current zoning within the study area presents several opportunities and constraints to achieving project objectives.

Opportunities

- Downtown largely consists of one- and two-story buildings, providing an opportunity for increased density, intensity, and building heights.
- There are nearly 12 acres of parking lots and vacant properties that provide opportunities for development, including several along 1st, 2nd, and Hancock Streets.
- The western and eastern ends of the study area provide opportunities for larger anchor/“gateway” developments, particularly at the eastern end where the current gateway sign and large parking area are located.
- The City-owned “Butler property” across from City Hall and adjacent to the post office offers an opportunity for future development. Re-use of the post office is a possible associated opportunity.
- Under-utilized industrial property in the northwest quadrant of the study area provides an opportunity for adaptive re-use.
- There are several opportunities for second-story redevelopment, particularly along 1st Street.
- The proximity to George Fox University presents an opportunity to develop housing to serve university students.
- Several buildings provide an opportunity for redevelopment in a manner that reflects or enhances their historic character.

Constraints

- Single-family detached housing units are currently listed as a conditional use within the C-3 zone. While existing houses within the project area are increasingly transitioning into commercial, professional or service-related uses, new single family detached housing is not normally considered an appropriate use within downtowns seeking to increase their density, intensity and mix of uses.
- Restrictions on “first floor storefront area” of multi-family dwellings may be a barrier to development of desired housing types, such as student housing.
- Parking garages as a conditional use may be a barrier to having parking provided on a district-wide basis and encourage permitted surface parking lots.

5.3 Urban Design

This section provides a summary of the urban design characteristics in downtown Newberg. The complete technical report can be found in Appendix E. The downtown area builds on a rich history of architecture and historic properties that date from the 1880s to present and represent the Commercial Style and Commercial with Decorative Masonry Style, which is considered a building type, more than a particular style of architecture from the late 1800s to early twentieth century. These structures included the use of brick or stucco exterior walls, modest decorative details, and flat roofs with parapet walls. Through time, many of these historic buildings have been lost, and those that remain have been repurposed and house a variety of business types while preserving their original aesthetic quality and façade informing the present streetscape.

The streetscape of downtown Newberg is also affected by OR 99W. Completed in 1917, it transects downtown Newberg as a couplet; westbound traffic travels along Hancock Street and eastbound traffic flows on 1st Street. OR 99W directly affects the current streetscape and aesthetic quality of the downtown area due to its high traffic volumes and serving as a major freight corridor.

Buildings

Building Scale. Throughout downtown Newberg, there are one- and two-story buildings that house commercial, industrial, and residential uses. These common building types create an intimate scale, due to their height and texture, along the city streets, as well as give way to views of the sky and other elements beyond the buildings. A large amount of buildings have retained their original brick façades, while others have either been resurfaced with a different material, painted over, new signage added, or awnings installed over storefront windows.

The building scale on 1st Street is vastly different when compared to Hancock Street. Because the building facades on 1st Street are located adjacent to sidewalks and are positioned in close proximity to each other, the street is walkable and can be easily traversed as a pedestrian. Conversely, Hancock Street is much less dense, and most buildings located here are either positioned within large asphalt parking lots, have no street frontage, or are set back from the adjacent sidewalk making for an unfavorable walking condition.

Re-Use. Many buildings from the 1900s have been reprogrammed over their histories and some of the historic buildings have kept their original façades and architectural details. Two examples of this can be found on 1st Street: the First National Bank Building from 1910, which is now home to a vineyard tasting

room, and a former gas station that has been repurposed as a small restaurant. Others along 1st Street have been repainted, awnings added above storefronts, or signage added. In some places, these details are currently in a degraded condition, and have a visual impact on the streetscape.



Photo 1. Re-Use building on Hancock Street.

On Hancock Street and near George Fox University, there are former houses that have been converted into small restaurants, mixed use development, offices, and retail shops. These houses have been repainted or refinished, and most have signage added to their exteriors.

Historic. Newberg’s historic buildings stem from its roots as the brick-making capitol in Oregon during the 1900s and are characterized by a predominant red brick color with cream accents, distinct patterning due to the size of the brick, unique textural quality, and welcoming height and scale.

Through time, many of these historic buildings have been lost, but those that remain include City Hall, the post office, Chehalem Cultural Center, and the Newberg Public Library. Others, mostly located along 1st Street, have been repurposed and house a variety of business types. Many buildings include their original aesthetic qualities and façades, thus informing the present streetscape.

Residential. As the downtown block pattern moves north of Hancock Street and south of 2nd Street, the urban design language of downtown begins to transition to residential uses. These residential uses span multiple building time frames and include examples of architecture spanning from the 1900s to present. The façades present a different type of quality to the street, such as garage doors and undisclosed entrances that do not provide the same urban design aesthetic as those found on 1st Street and Hancock Street.



Photo 2. Library building showing historic character.

Industrial. Industrial uses are integrated into several downtown areas within and surrounding the couplet. These uses are important to the overall economy of the City of Newberg. These façades and building types present a different kind of character to the city because of their land use designation and require more investigation in compatibility for creating and continuing an urban design component of the downtown.

Buildings are typically larger in scale; some require freight loading docks and sizeable space for maneuvering trucks. These buildings sometimes present challenges with pedestrian use and access interfering with their service needs. The NDIP will need to specifically investigate these areas to help facilitate maintaining service and access to these industrial uses while creating a better aesthetic quality to the pedestrian urban design component.

Pedestrian Amenities

Sidewalks. Sidewalks play a vital role in city life. As conduits for pedestrian movement and access, they enhance connectivity and promote walking. As public spaces, sidewalks serve as the front steps to the city, activating streets socially and economically. Safe, accessible, and well-maintained sidewalks are a fundamental and necessary investment for cities and have been found to enhance general public health and maximize social capital.

1st Street: Sidewalks contain scoring patterns of a rectangular shape, ranging from 4 feet to 12 feet. At several locations bricks are used to delineate specific areas and intersections.

Hancock Street: Sidewalks on both sides of the roadway typically have a 7-foot-square scoring pattern interrupted at the bulb-outs at several intersections.

Overall: A majority of the concrete sidewalks include a curb, and at times, have a consistent scoring pattern; however these patterns are not consistent throughout the downtown area due to remnant street markings or in some locations, the more recent concrete does not conform to a specific pattern.

Street Lighting. The distribution of lighting along the street can have a dramatic effect on the nature of the street and its secondary uses.

1st Street: In general, there are street lights with a nonpainted metal finish with “cobra-head”-type lighting; at intersections they include an armature for traffic lights. These are placed a 100 feet to 150 feet apart.

Hancock Street: Nearly all street lights consist of a unique style and are painted a matching black color. Some lights have banner space and others have hanging planter baskets attached to them.

Overall: By observation, there is no unifying style or color used throughout the downtown area. There are a variety of styles, heights, and finishes used.

Street Trees. Urban trees and landscapes are assets that require the expenditure of resources—labor, energy, and water—for proper management.

More and more communities are beginning to recognize the tangible benefits that trees provide in the urban environment. Healthy trees increase property values, reduce air and noise pollution, provide energy-saving shade and cooling, furnish habitat for wildlife, enhance aesthetics, and are an important contributor to community image, pride, and quality of life. Because street trees are one of the most important organizing elements of the streetscape environment, appropriate tree species selection, location, and design of the planting site is essential. Proper tree selection and planting will ensure the healthy growth and longevity of trees, enhance the streetscape character, reduce maintenance issues and maximize the City of Newberg’s investment.

Overall: Throughout the grid-block pattern of the downtown area, there is no unifying spacing of trees. There are also gaps where trees have been lost to disease or age. Street trees in some areas use tree grates as a part of the sidewalk, in other areas the mulch at the base of the tree is exposed with no tree grate.

In general, a diverse range of species are used as street trees, sporadically located throughout the downtown area, and do not seem to present a common uniform language to the existing street pattern. Trees vary in size and shape from very upright and columnar in the 10-foot to 20-foot range, whereas other trees are very broad and ovate, in the 30-foot to 35-foot range. The City of Newberg has a preferred street tree list (1992), The City may wish to have an overall inventory and study of the downtown tree inventory conducted to assess the health of existing trees, and to provide recommendations if/as appropriate for revisions to the preferred street tree list.

Site Furnishings. Street furnishings provide important amenities for pedestrians by adding functionality and vitality to the pedestrian realm. They announce that pedestrians are welcome and that the street is a comfortable place to be. These amenities provide a functional service to the pedestrian and provide visual detail and interest.

1st Street: Benches made of iron and attached wooden slats for seating are located at the mid-block of 1st Street and School Street, and at the southeast intersection of 1st Street and College Street. There are also small businesses that have placed seating outside their commercial space for their patrons. Colorful painted metal trash containers are spread throughout 1st Street, as well as painted wine barrels that are used for planters and part of the efforts by the Newberg Downtown Coalition to improve the aesthetic of the downtown area.

Hancock Street: There are no apparent public seating, trash containers or items, such as wine barrel planters, used to add to the aesthetic of the street.

Overall: Although both 1st Street and Hancock Street have some unifying qualities within their own right of way, they do not seem to coordinate with each other, nor do they correspond to the remaining downtown area. Both offer little to no pedestrian amenities for resting within the present streetscape.

Walking Conditions

Intersection Treatments. For city streets to meet the needs and demands of everyone using them, intersections—both large and small—need to function as safely and efficiently as possible. Good intersection design, however, goes beyond making streets safer. Well-designed intersections use street space to bring people together and invigorate a city while making traffic more intuitive, seamless, and predictable for those passing through.

1st Street: At several intersections along 1st Street, College Street, Howard Street, and Meridian Street, red brick has been placed in a double basket weave pattern and acts as a reference to the City of Newberg’s history.

Hancock Street: Throughout the south side of Hancock Street, bump-outs are placed at all intersections. These bump-outs provide an area for vehicles to park along the road and allow for driveways. Although this element gives Hancock Street an overall characteristic, it does not provide an artistic or creative quality.



Photo 3. Site furnishings

Overall: Both 1st Street and Hancock Street use bulb-outs that increase pedestrian safety and visibility due to their extension beyond the curb. However, they do not share the same combination of materials.

Crosswalks. Marked crosswalks are an essential tool for helping pedestrians move safely, conveniently, and predictably across roadways. Crosswalks can also provide a unique streetscape design treatment to emphasize pedestrians' presence and primacy.

Hancock Street, 1st Street and 2nd Street: These streets use two common crosswalk types; standard and continental. They mostly appear between Blaine Street and River Street.

Overall: The crossings were designed with visible white paint, however at some locations, crossings are degraded and have worn away over time. Many intersections within the couplet area have crossings. There are fewer intersections with crossings outside of the couplet area. Not all crossings also have a walking signal.

Alleys. Alleys are small-scale streets that typically only carry low numbers of vehicles accessing adjacent properties. Alleys should be designed to a pedestrian-scale speed and level of detail wherever possible to calm traffic and emphasize pedestrian use. Alleys may also include seating, landscaping, and pedestrian lighting to create usable public spaces.

1st Street: To the south of 1st Street, an alley extends between Washington Street and Meridian Street. This alley is used mostly for vehicular traffic, trash pickup, utility poles, and for access to and from businesses located adjacent to the public parking lot on Second Street, between Howard Street and College Street. One building façade at the east end of the alley at College Street has a landscape mural painted on its north wall. To the north of 1st Street, an alley lies between Garfield Street and Blaine Street. This location accommodates a total of two blocks and is heavily used by delivering trucks and vehicular traffic.

Hancock Street: To the south of Hancock Street, an alley extends from Howard Street east to Meridian Street. There are utility poles and visible signs of vehicular travel to local businesses, however there is no visual evidence of pedestrian or bike use.

Between Hancock Street and 1st Street: To the east and west of Main Street, there are two alleys operating as vehicular connections to adjacent parking areas for nearby businesses. Both, north-south alleys extend one block and connect to 1st Street and Hancock Street.

Overall: All of the alleys located in the downtown area seem to be used mostly for large delivery trucks to access businesses for loading and unloading of goods or for individuals to access businesses.

Civic Identity and Wayfinding

Gateway Monuments. The purpose of gateway monuments is to provide an overall image of a neighborhood or district, mark edges or entry points, and give information about directions, destinations, or the neighborhood in general.

At both entry points of the couplet, where 1st Street and Hancock Street meet, gateway signs have been placed announcing the arrival to the downtown area of Newberg.

West end: The gateway sign is mostly made of concrete with a colorful graphic placed in the center of the structure. The scene emulates a winery.

East end: The structure is made mostly of red and tan brick and rests on a concrete base. The red brick is laid in a horizontal running bond pattern, while the yellow accent brick is used as an inlay in a herringbone pattern and as a crown to the overall sign structure.

Both gateway signs signify the arrival to the downtown area of the City of Newberg. They do not match in size or style, but are noticeable to both vehicles and pedestrians.

Signage. Signage plans should be developed on a neighborhood basis, specific to the needs of that district. They are most appropriate to downtown, commercial, or tourist-oriented locations, or around large institutions. Less traveled areas may still include some basic informational signs or neighborhood markers.

1st Street and Hancock Street: Both roadways have standard transit signs within the downtown area. These signs predominately correspond to vehicular flow, although there are a few signs for bike travel.

Signage and wayfinding in downtown Newberg is limited for the pedestrian, although it is highly present for vehicle use. Signage types include freestanding business monument signs located close to roadways, signs above storefronts, and occasional folding A-frame signs for individual businesses.

Public Art. Public art is an important component of many street improvements. On a large scale, public art has the ability to unify a district with a theme or identify a neighborhood gateway. At a pedestrian scale, it can provide visual interest for passersby.

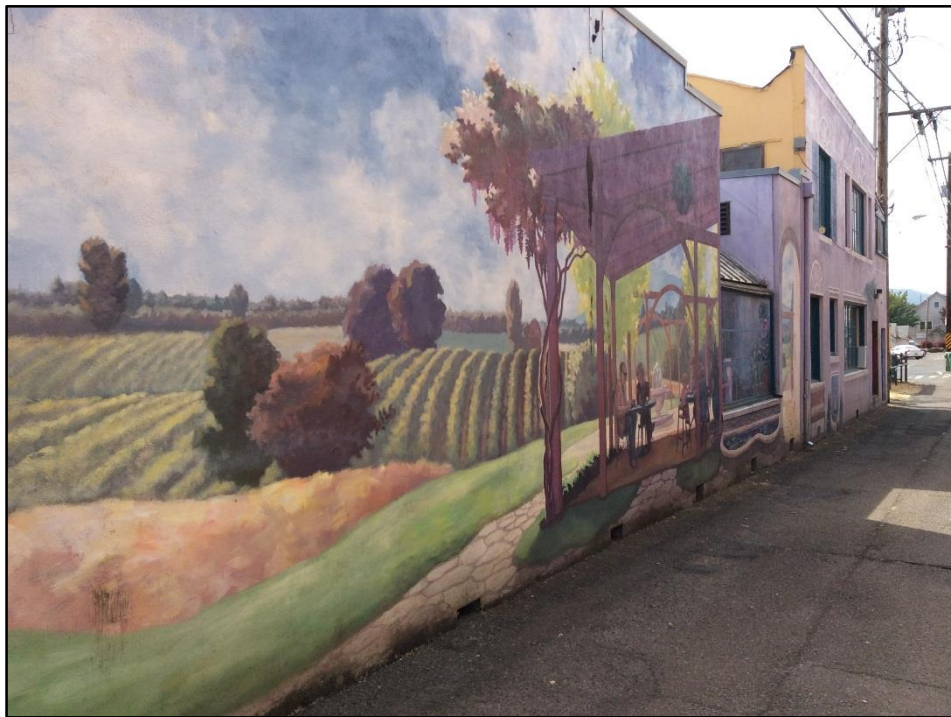


Photo 4. Landscape mural – east end of the alley at College Street.

1st Street is the only street in Newberg with murals located within close proximity. A mural depicting a winery set on top of a hillside is located at the end of the alley on College Street and another is located east of College Street on the west side of a building façade, adjacent to an asphalt parking lot. The

murals are large scale and draw attention to them by illustrating landscapes from outside of Newberg. They are also the only two public art elements visible to the public from public streets or alleys.

Kiosks. Kiosks are public elements that are sources of information, which may include maps, bulletin boards, or other useful information. Kiosks can often be combined with gateway signage and provide an attractive and useful streetscape element.

There is only one informational kiosk located on Hancock Street, near the intersection of Blaine Street. This kiosk is a wooden structure with an eco-roof, and is a water-wise demonstration garden and wildlife habitat. Newberg Public Works Maintenance Division and contributing partners have created this garden to give the public and private sectors examples of water-wise sustainable choices they can make when building, designing, and installing landscapes, irrigation systems, and hardscapes.

Festival Streets. Festival streets use traffic-calming and unique streetscape features to create a street that can easily be converted to public use on weekends or for special events.

Sheridan Street, between Blaine Street and School Street, has been repaved as a festival street and is located in front of the Chehalem Cultural Center. It can be closed off to vehicles for seasonal events including the farmers market and Oktoberfest.

The street includes a concrete roadway with rectangular scoring patterns, tree wells with ornamental steel grates, sidewalks along both sides of the roadway, and landscape planters.

Cultural Resources

Newberg Cultural Areas. The Chehalem Cultural Center is housed in a historic brick building that began its life in 1935 as Central School—a Depression era Works Progress Administration (WPA) project. The building is currently owned by the Chehalem Park and Recreation District.

The historic building houses a fine arts gallery and exhibition hall, three multipurpose arts studio classrooms, a state-of-the-art clay studio, a recording studio with four music practice studios, meeting space, and a 5,200 square foot grand ballroom for public and private events.

In addition to the Chehalem Cultural Center, Newberg benefits from several landmarks and destinations located within its downtown area. Francis Square Park serves as a resting place for passers-by and Memorial Park provides recreation opportunities for the adjacent neighborhood. The Hoover-Minton Museum, Cameo Theatre, Masonic Temple, and Historic Library are destinations for local residents and visitors of the area. There are several art galleries and public events coordinated throughout the year.

Historic Resources

An initial inventory of historic properties for the City of Newberg was conducted in 1984 and 85 and encompassed assets within the city limits of Newberg and the urban growth boundary. A final report was prepared including an historical overview of the city's development, major historical themes, building types and styles, methodology, the evaluation process, findings, and preservation recommendations. In 1990, the City of Newberg updated the 1985 study documenting the alterations, rehabilitations, and demolitions since the completion of 1985 inventory. This catalog illustrates the rich history of architecture and historic properties that date from the 1880s to present.

Newberg's historic buildings stem from its roots as the brick-making capitol in Oregon during the 1900s. These structures included the use of brick or stucco exterior walls, modest decorative details, and flat roofs with parapet walls. Through time, many of these historic buildings have been lost, but those that

remain include City Hall, the post office, Chehalem Cultural Center, and the Newberg Public Library. Others, mostly located along 1st Street, are locally and nationally designated historic sites.

There are 12 historic properties located in the City of Newberg on the National Register of Historic Places, three of which are located in the downtown study area:

- **Hoover-Minthorn House**, 115 S. River Street, NRHP listing dated 10/29/75. Originally built in 1881 by “Father of Newberg” Jesse Edwards, purchased in 1884 by Henry and Laura Minthorn, this is Newberg’s oldest and most historic house. From 1885 to 1888, President Herbert Hoover lived here as the adopted son of the Minthorns, who also happened to be his aunt and uncle.
- **Union Block Building**, 610-620 E. 1st, NRHP listing dated 5/5/2000. Also known as the Wilson Building. Built by the Union Building Company in 1907. Home of three prominent Newberg banks and the Imperial Hotel (1907–1929). Miller Mercantile operated in 616 for many years, followed in turn by Coast to Coast hardware, Wilson’s Furniture and White’s Collectibles. Martin Redding’s insurance agency was in 612 (1940–1960), important because A-dec co-founder and co-owner Joan Austin spent several of her formative years as a business woman at this agency.
- **J.C. Penny Building**, 516 E. 1st, NRHP listing dated 6/13/2007. The first nationwide chain department store to enter the local market, Penny operated in this decorative masonry style building until 1980. Many still know this address as Khron’s Appliance store. Critter Cabana (pets and supplies) is the current occupant. A fire on Dec. 13, 2012, did extensive damage to the interior which has since been repaired.

Opportunities and Constraints

Opportunities throughout Downtown

- **Street Trees.** There is an overall lack of street trees along the downtown’s two primary traffic streets, especially on Hancock Street. Additionally, there is no clear pattern or unifying aesthetic for the street trees downtown. Street trees can unify and create a comprehensive understanding of the downtown corridor. Also, trees located within the downtown area could be equipped with secured electrical outlets to provide lighting opportunities for planned and seasonal events.
- **Crosswalks.** Adding or restriping existing crosswalks at all four intersections of streets would give drivers, residents, and visitors a clear understanding of the expected behavior of people downtown.
- **Existing Driveways and Entrances.** There may be an opportunity to reduce the number and width of driveways for businesses that are not adjacent to the right of way. Providing landscape buffers between sidewalks and parking lots would foster a more unified edge.
- **Curb Bump-outs.** Adding curb bump-outs to intersections or mid-blocks could provide space for street trees, art installations, unique wayfinding, stormwater treatment facilities, and seating.
- **Infill.** There are several parking lots within the downtown area that could be targeted for future development.
- **Programs.** There is an opportunity to develop an art and mural program for the downtown area similar to the program in McMinnville, Oregon.

- **Pedestrian Access.** Pedestrian Access. The mid-block corridor or ‘breezeway’ that connects First Street to an adjacent parking lot on 2nd Street could be enhanced internally by providing appropriate lighting levels and externally with noticeable signage.

Opportunities within Specific Areas

- **North-South Streets.** Streets running north-south through the downtown area could have unique landscaping and scoring patterns within the sidewalks, creating a complementary language to the rest of the area.
- **West End of Couplet.** There is an opportunity to enhance the setting of the large Oregon Oak as an entrance feature, welcoming motorists and pedestrians to the downtown area.
- **Civic Corridor.** There is an opportunity to create a north-south connection from the Chehalem Cultural Center to Memorial Park through the provision of a unique streetscape on Howard Street. The corridor could accommodate seating and gathering spaces for special events or street closures, as well as provide space for public art installations.
- **Stakeholders and Community.** Providing opportunities or events for the public to participate in a decision-making process is an essential component of a successful plan. Collecting and gathering stakeholder and community input provides a vested and impartial component to the plan for the future development of Newberg’s downtown.

Constraints

- **Funding.** The cost of street improvements can range from simple interventions such as adding a street tree or landscaping to full re-designs of an entire corridor, which can have a far more significant cost per block. Securing funding for the long-term will be challenging and will be important to the success of the Newberg Downtown Improvement Plan.
- **Engaging Private Property Owners.** The differing views and needs of private property owners can be difficult to align and resolve at times. It will be important to engage them in decision making to achieve long-term goals and mutually beneficial relationships.
- **Right of Way.** The current right-of-way does not present flexibility for significant changes in current transportation corridor standards. Considering changes in transportation planning corridor standards and the opening of the Newberg-Dundee Bypass, future modifications of the existing right of way present opportunities for a more walkable Newberg.
- **Parking.** Providing adequate parking in the downtown area may pose a concern when implementing infill development. The reduction or elimination of parking could be negatively received by local establishments.

APPENDICES

This summary memo is supported by the technical memos included in the appendix that provide more detailed information on the existing conditions in Downtown Newberg.

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APPENDIX

B

TECHNICAL MEMO #2:
MARKET STUDY CURRENT CONDITIONS



NEWBERG DOWNTOWN IMPROVEMENT PLAN



MARKET CONDITIONS REPORT

PREPARED BY



LELAND CONSULTING GROUP

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Introduction

This Market Conditions Report has been prepared as part of the Newberg Downtown Improvement Plan (NDIP). In early 2015, the City of Newberg, Oregon was awarded a grant by the Oregon Department of Transportation (ODOT), and the Department of Land Conservation and Development (DLCDD) to develop a roadmap for improving Newberg's downtown. This project, the NDIP, will focus on



land use, transportation, and design solutions to achieve a thriving and livable downtown that meets the community's visions and aspirations. The NDIP is being led by the City of Newberg with support from a project consultant team, a community advisory committee, and general public input. The NDIP is anticipated to be complete in Fall 2016.

The purpose of this Market Conditions Report is to build upon the findings of previous studies that have examined and recommended a path for Newberg and provide a baseline understanding of the existing market and economic factors, including demographics that affect development in the study area and across the city of Newberg. This report arrives at an early stage in the NDIP planning process, so that the project decision-makers can, given the report's findings, understand what strategic considerations should guide the approach to development in downtown Newberg.

This Market Conditions Report first delves into the demographics of Newberg. Population profiles are examined in order to understand who the citizens of Newberg are, how quickly the population is growing, and how the population will change in coming years.

After demographics, the report illustrates the general economy of the city of Newberg. This section covers unemployment trends, major employers, major industries by employment, and job sector trends. These economic factors are instrumental in understanding the nature and general health of Newberg's economy.

Real estate market sectors are then analyzed, starting with the housing sector (both rental and owner-occupied), followed by the retail and office sectors. The industrial sector is considered, but not analyzed in detail, as there are few industrial uses in downtown Newberg.

The reader should note that land use inventories are analyzed in this report's companion piece, Technical Memorandum #1: Existing Conditions.

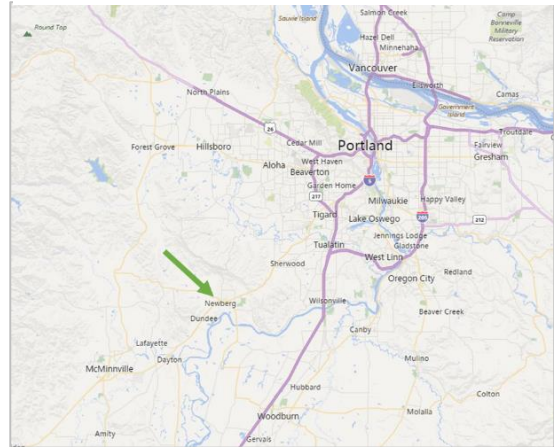
Demographic and Economic Context

Newberg Overview

Newberg, Oregon is a city of approximately 23,000 people located 26 miles southwest of Portland, Oregon. Newberg was settled in the mid-19th century, and later platted and incorporated as a city in 1889. Today Newberg is known as the gateway to Yamhill County's many wineries and one of the focal points of the Willamette Valley's Wine Country. Newberg is well positioned between the growing Portland metropolitan area to the northeast and the agricultural economy of the surrounding Willamette Valley.

The purpose of this study is to investigate and present the current real estate market conditions of Newberg in general and Newberg's downtown in particular, in order to inform the Newberg Downtown Improvement Plan (NDIP). This market conditions study forms the base of the NDIP's analysis of the economic situation and real estate position of Newberg's downtown area.

Figure 1 - Newberg Location in Relation to the Portland Metropolitan Area



NDIP Study Area and Market Boundaries

The NDIP study area encompasses Newberg's historic downtown and surrounding blocks, roughly measured between Sheridan Street to the north, Second Street to the south, and the east and west ends of the one-way street couplet that are formed by Hancock Street and First Street. These two streets are also known by their Oregon Department of Transportation numbered names, State Highway 99W and State Highway 219, respectively.

For the purposes of analysis, this report considers the market conditions of the NDIP study area, its immediate surroundings, and the entire city of Newberg.

Figure 2 - NDIP Study Area

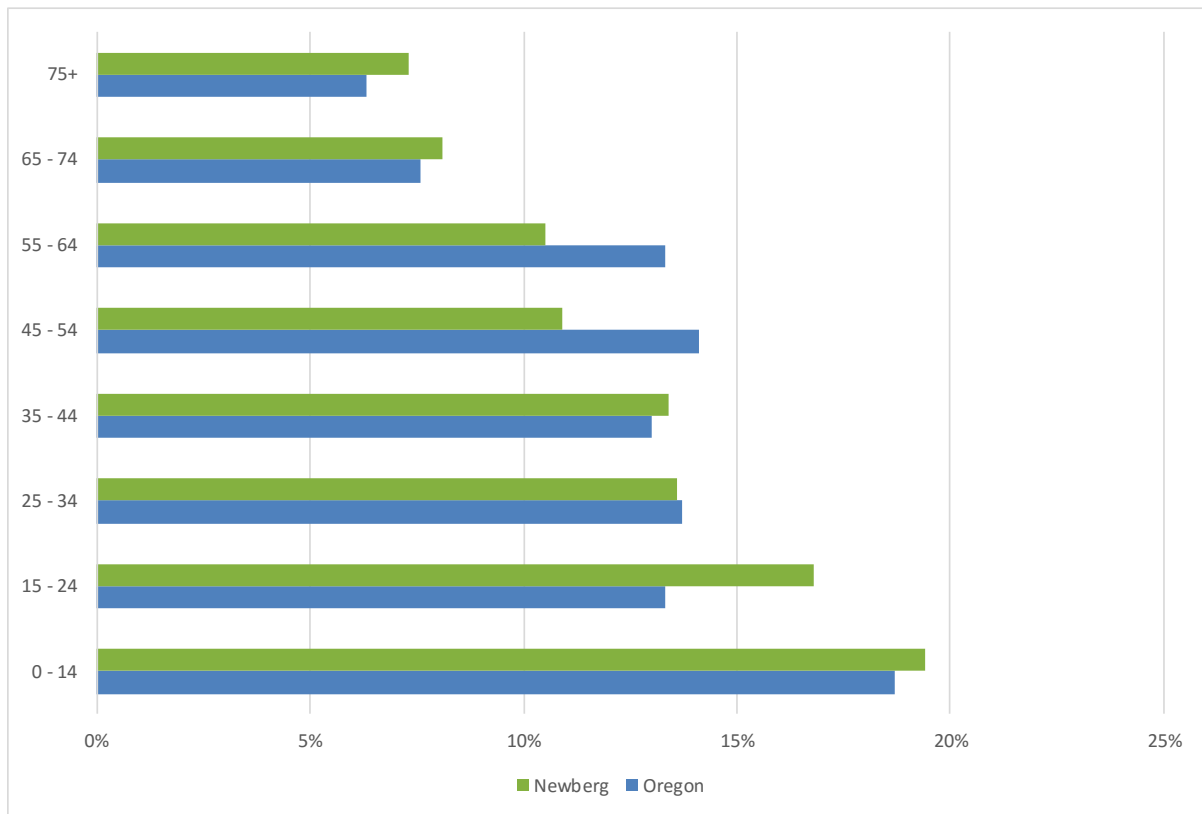


Area Demographic Analysis

Newberg is a growing community with a current population of almost 23,000 as of 2015. Between 2000 and 2010 Newberg grew by over 20 percent, a substantial change when compared to the State of Oregon's growth of 12 percent over the same period. The population is relatively young with an average age of 34 years. Newberg is a college town, with over 4,000 undergraduate and graduate college students attending the private George Fox University, along with scores of students at Newberg's

Portland Community College (PCC) campus. The following chart illustrates Newberg's population by age.

Figure 3 - Newberg's Population by Age, Compared to Oregon (2015)



Source: ESRI

Newberg Demographic Snapshot¹

- Newberg outpaced the state's growth rate during the decade of 2000 to 2010 and is currently continuing to grow at a faster rate than the rest of Oregon. **Newberg's population is projected to grow on average 2.7% percent annually between now and 2020.**
- The average household size is **2.64 people, compared to Oregon's average of 2.45.**
- Nearly a quarter (23 percent) are single-person households and 33 percent are two people. **Together, one and two-person households make up 56 percent of the total population.** Seventeen percent of Newberg households are three people and 15 percent are four people.
- **Newberg's household median income is \$58,602**, which is slightly higher than both the Oregon and U.S. household median incomes.
- As of 2010, about **59 percent of Newberg housing units are owner-occupied** and 35 percent are rented.
- Approximately 28 percent of Newberg's population is a high school graduate or has a GED; 25 percent have had some college, but no degree, **over 20 percent have a bachelor's degree,**

¹ Source: ESRI and PSU's Population Research Center

and 9.3 percent have a graduate degree. These percentages are in-line with the State of Oregon numbers.

- While Newberg’s population is fairly homogeneous at 85 percent white, **over 14 percent of the population identifies as Hispanic.**

Lifestyle Segments

The demographics and analytics firm, ESRI, has created a number of psychographic profiles, or “tapestries,” which are used to better understand a place’s population. These tapestries combine demographic information with consumer purchasing and other lifestyle data to present a fuller picture of the attitudes, interests, opinions, and lifestyles of a community. Commercial retail developers, in particular, are interested in understanding a community’s lifestyle segment, as this is an indication of the residents’ propensity to spend across select retail categories. Residential developers are also interested in understanding this profile as it tends to suggest preferences for certain housing products. Newberg’s top five tapestries that together represent over 85 percent of the city’s population are highlighted in the following table.

Table 1 - Newberg's ESRI Tapestries (2015)

Rank	Tapestry Segment	Percent of Newberg Households	2015 U.S. Households Cumulative Percent
1	Middleburg (4C)	22.9%	2.80%
2	Front Porches (8E)	19.6%	1.60%
3	Soccer Moms (4A)	16.2%	2.80%
4	Green Acres (6A)	15.8%	3.20%
5	Down the Road (10D)	11.3%	1.10%

Source: ESRI

The following ESRI descriptions explain in brief detail characteristics that define each of Newberg’s top five tapestries.



Middleburg (23 percent) – Conservative, family-oriented households living in semirural subdivisions. They are thrifty and willing to carry some debt, but already investing in their futures. They prefer American-made products and travel within the United States. Somewhat younger than the population at large, their average age is 35 years and average household size is 2.73 people.



Front Porches (20 percent) – A blend of household types with more young families with children or single households than average. This group is more diverse than the United States and about half are renters, primarily in older homes and duplexes. Their income and net worth are well below the US average and many households have taken out loans to make ends meet. Their average age is 34 years and average household size is 2.55 people.



Soccer Moms (16 percent) – Affluent, family-oriented households with a country flavor. They are partial to new housing away from the bustle of the city but close enough to commute to professional job centers. The hectic pace of two working parents with growing children leads them to favor time-saving services and family-oriented pursuits. Their average age is 37 years and average household size is 2.96 people.



Green Acres (16 percent) – Avid do-it-yourselfers who enjoy country living and self-reliance. They are invested in maintaining and remodeling their homes and yards, often turning some of the land into gardens. They enjoy outdoor recreation and are generally conservative in their outlook. Their average age is 43 years and average household size is 2.69 people.



Down the Road (11 percent) – Younger, more diverse communities that live in a mix of low-density, semirural neighborhoods in large metropolitan areas. These family-oriented consumers value their traditions and primarily work in service, retail, manufacturing and construction. This segment typically has higher unemployment as well as lower median household income and home value. Their average age is 34 years and average household size is 2.74 people.

NDIP Study Area Demographics

Newberg is a small city with a modest downtown. There is limited housing in and around the downtown area and the majority of the population live in single-family homes on 5,000 square foot to 10,000 square foot lots in residential or suburban style subdivisions. There are approximately 4,000 residents that live within a half mile of the center of the downtown area which is the intersection of East First Street and South Howard Street, the location of City Hall.

The following table compares the demographics of the entire city of Newberg to the population located within a half mile of downtown’s approximate center point, City Hall.

Figure 4 - NDIP Half Mile Demographics (Green Ring)

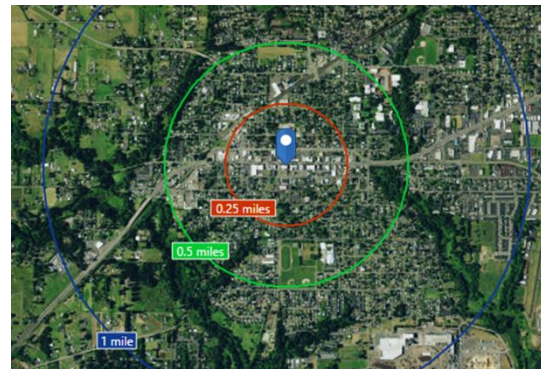


Table 2 - NDIP and Surrounding Area vs. Citywide Demographics (2015)

	Half Mile from Newberg City Hall	Entire City of Newberg	Comparison
2015 Population	4,059	22,646	The downtown and immediate surrounding area represents 18 percent of the Newberg population
2015 Average Household Size	2.56	2.64	Households are generally smaller in the downtown area
2015 Housing Units	1,382	8,565	16 percent of Newberg’s households are located in the downtown area
Renter-Occupied Housing Units	46%	37%	The downtown area has more renters than the rest of Newberg
One and Two-Person Households	61%	56%	There are more small households in the downtown area
2015 Median Age	28	34	The population is generally younger in the downtown area

Source: ESRI, Leland Consulting Group

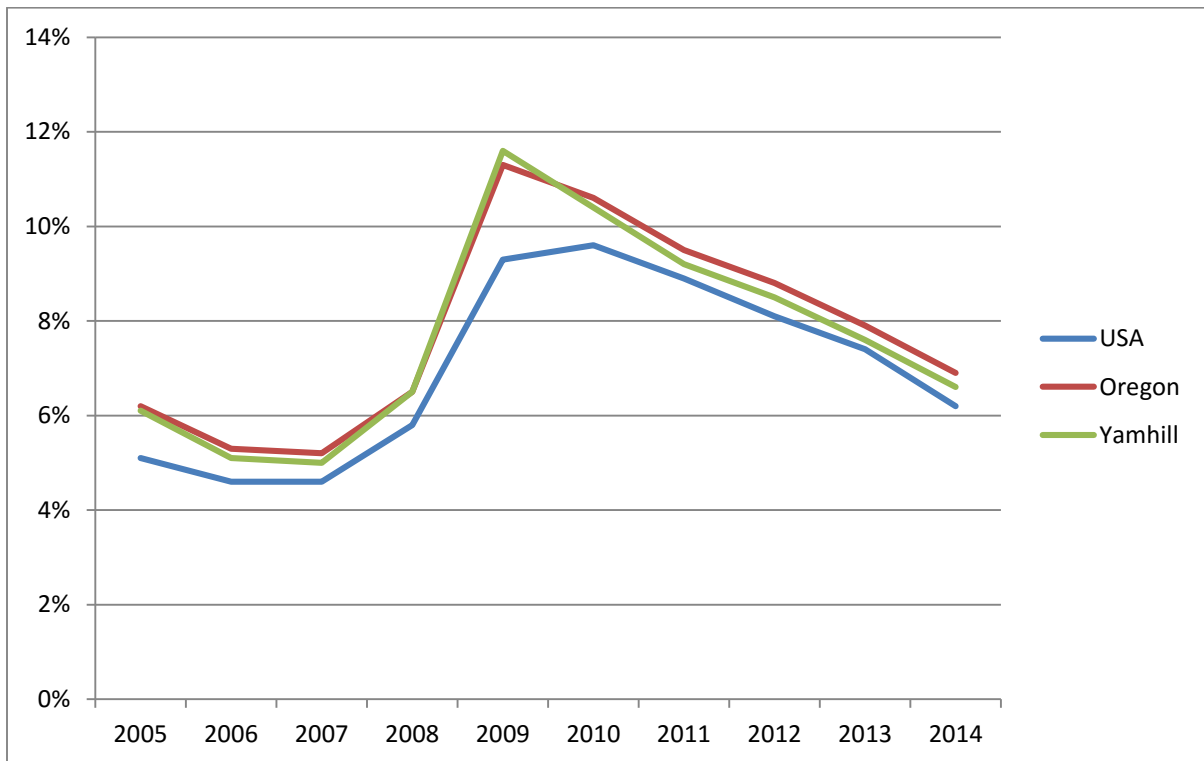
If we drill down even further to the NDIP boundaries, we see that the downtown area, while having a decently small population, is understandably quite different than the entire city. For example:

- There is a total **population of 325 people** in **121 households** within the NDIP study area, versus Newberg’s total population of 22,646 people in 8,004 households.²
- Average **household size is 1.6 persons**, considerably smaller than the rest of the city at 2.64.
- Of the 134 housing units in the NDIP study area, **60 percent are renter-occupied, versus the city’s percentage of renters is only 36.7 percent.**
- The **median age within the study area is 24, while the median age of all of Newberg is 34.**

Area Economic Analysis

Newberg is the second largest city in Yamhill County after McMinnville, and together the two cities comprise over half of Yamhill County’s population. Yamhill County has seen a steadily declining unemployment rate since the end of the recent recession. The seasonally adjusted unemployment rate was 6.6 percent in 2014, down from 7.6 percent in 2013. The month by month unemployment rate for 2015 has continued to show promising declines. It’s worth noting that 7.6 percent down to 6.6 percent is a considerable drop, and reflects the county’s steady climb out of the recent recession.

Figure 5 - Yamhill County Unemployment Compared to Oregon and the Nation (2005 to 2014)

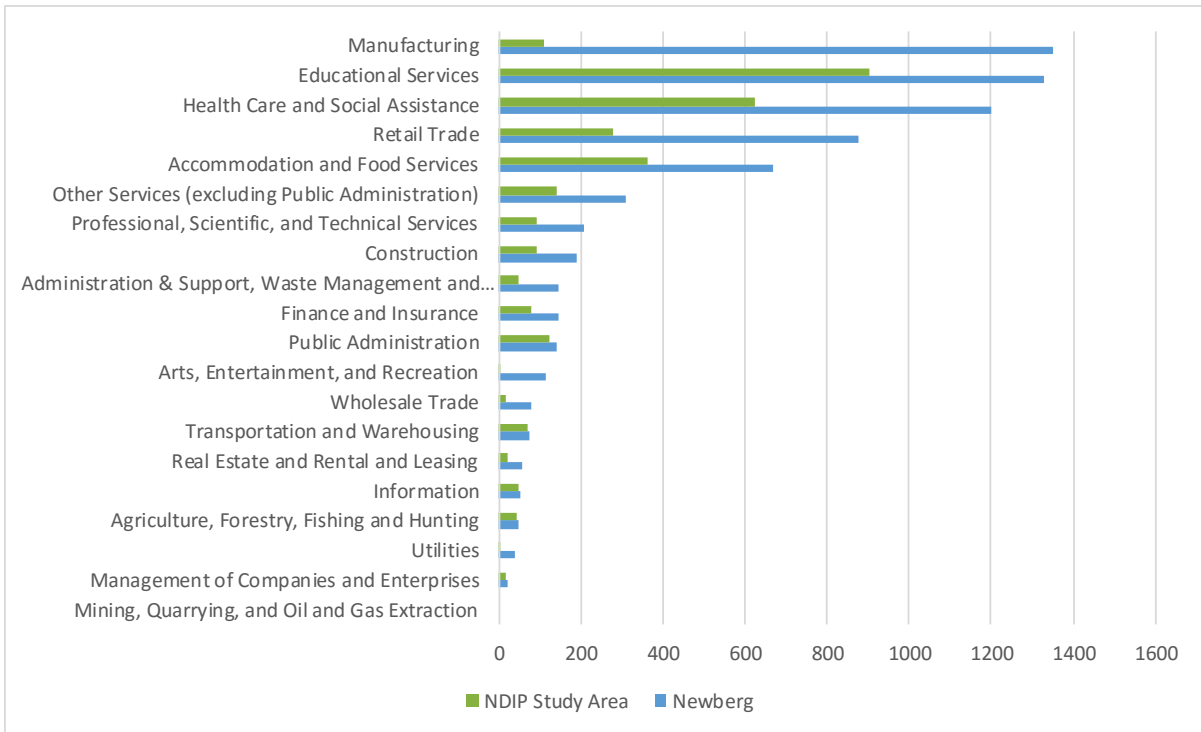


Source: U.S Bureau of Labor Statistics

² 1.6 persons per household multiplied by 121 results in 194 people. In further examining the data, LCG believes that some group housing is being picked up in this data in order to achieve the 325 people in the study area. Most likely this represents George Fox University student housing.

Newberg has over 7,000 full-time workers, with a few large employers that form the base of its economy. At the top of the list is notable dental equipment firm A-dec with over 800 employees. Providence Newberg Medical Center, George Fox University, Portland Community College, and the Allison Inn & Spa resort are other significant employers. With five elementary schools, two middle schools, and a four-year high school, Newberg School District also contributes significantly to employment in the area. Figure 6 - Employment by Industry, NDIP and Newberg (2013) below illustrates the breakout of employment by industry within the entire city of Newberg as compared to the employment within the NDIP study area geography.

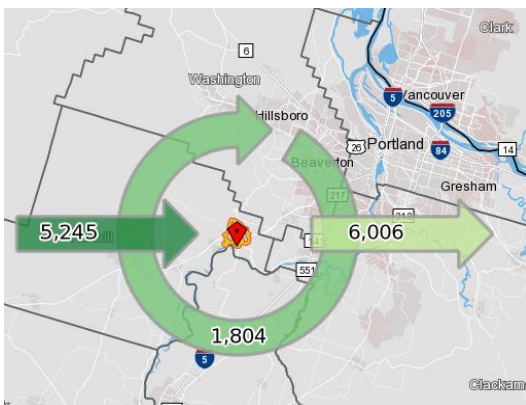
Figure 6 - Employment by Industry, NDIP and Newberg (2013)



Source: U.S. Census Bureau

Newberg has a fairly even split between residents that work outside of the city limits and workers who commute into Newberg for work. The following chart outlines this data. The top destinations of the 6,006 Newberg residents that travel outside of Newberg each day for work are Portland, Tigard, Tualatin, Beaverton, and Hillsboro.

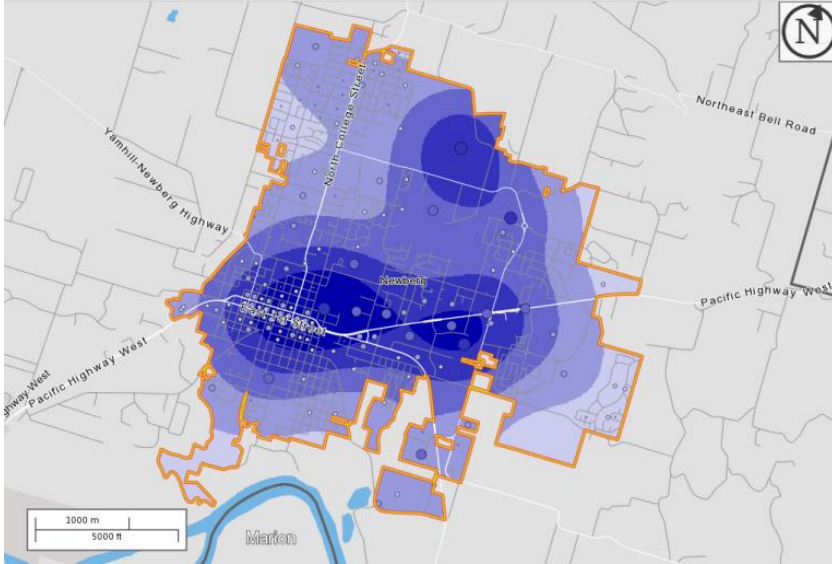
Figure 7 - Newberg Resident and Worker Commuter Patterns (2013)



Source: U.S. Census Bureau

The following map outlines the major employment areas in Newberg. Downtown and 99W stretching northeast of town form the major concentration of employment locations. The dark concentration in the northern part of the city is A-dec, the dental equipment company.

Figure 8 - Newberg Employment Concentrations



Source: U.S. Census Bureau

Market Conditions

Rental Housing

Nationally, apartment demand and occupancy remains strong and demographics clearly favor the apartment sector over ownership housing. Declining homeownership is increasing the demand for apartments generally, and financing for home ownership has become much more difficult, which is exacerbating the shift to apartments, particularly among newly formed Generation Y households. Additionally, weak employment growth has resulted in more part-time jobs and weak income growth, which has created more renters. Apartment growth is most apparent in larger cities, near city centers, neighborhood centers, and along frequent transit lines.

The Newberg rental apartment market is of modest size and, despite relatively low rents, there is exceptionally tight vacancy. According to CoStar Property Analytics, there are 59 multifamily properties in the city of Newberg with an average size of 36 units. Few market rate units have been added to the market in the past decade. Multifamily rents are stable but generally lower than necessary to allow new construction to pencil. Rents range between \$0.96 per square foot per month for average properties to \$1.20 to \$1.28 per square foot per month for newer construction. The newest apartment complex in Newberg, Springbrook Ridge which is completing construction this year, has asking rents of \$1.18 to \$1.19 per square foot per month.

Table 3 - Newberg Multifamily Statistics

Newberg Multifamily Inventory Statistics	
Number of Multifamily Properties	59
Number of Multifamily Units	1904
Number of Income Restricted Properties	8
Average Number of Units/Property	36
Percent of Total Multifamily Units that are Income Restricted	17.5%
Average Year Built	1974
Current Vacancy	2.4%
Average Asking Rent/SF/Mo (2015)	\$ 1.06
Average Asking Rent (Monthly, 2015)	\$ 827

Source: CoStar Property Analytics

Figure 9 – Examples of Downtown Newberg Multifamily Housing



Typical to the Newberg multifamily market are two to 10-unit complexes built in the 1970s and 80s. CoStar reports that the multifamily vacancy rate has fluctuated between less than two percent to almost four percent in the past five years. The current multifamily vacancy rate stands at an incredibly low 2.4 percent.

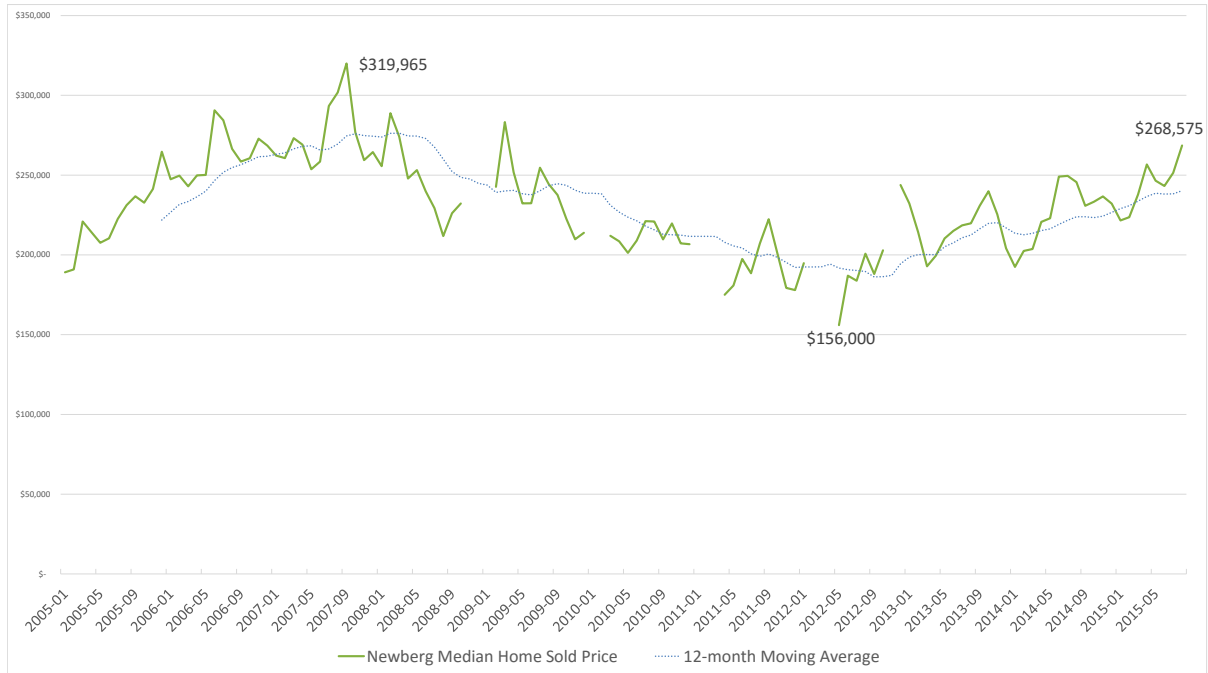
Downtown Newberg has a number of second floor apartment units above first floor commercial spaces. These units are primarily concentrated along First Street, and more specifically on the south side of the street. Currently, the Newberg Downtown Coalition is conducting a review of downtown housing units. This survey will inform the City as to how many active units they have in the downtown area.

There are a number of potential development sites in the downtown area that could serve as multifamily apartment sites. These vacant sites are clustered on the east and west ends of the downtown. Redevelopment of existing improved sites is also a possibility throughout the downtown (see the improved values vs. land values map at the end of this report).

Ownership Housing

Single-family home prices have yet to rebound to pre-recession levels. The following chart illustrates the volatility in the market over the past 10 years.

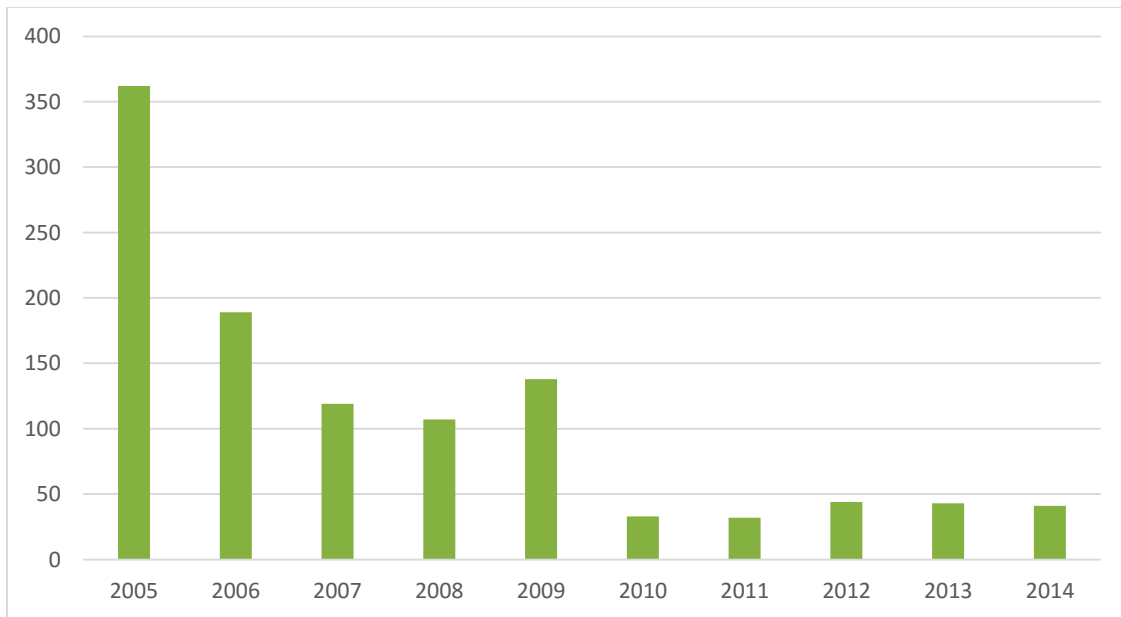
Figure 10 - Newberg Single-Family Median Home Sold Prices (2005 to 2015)



Source: Zillow Real Estate Research

Single-family housing permits in Newberg have declined dramatically since the recent recession. Fewer than 50 permits have been issued annually since 2009.

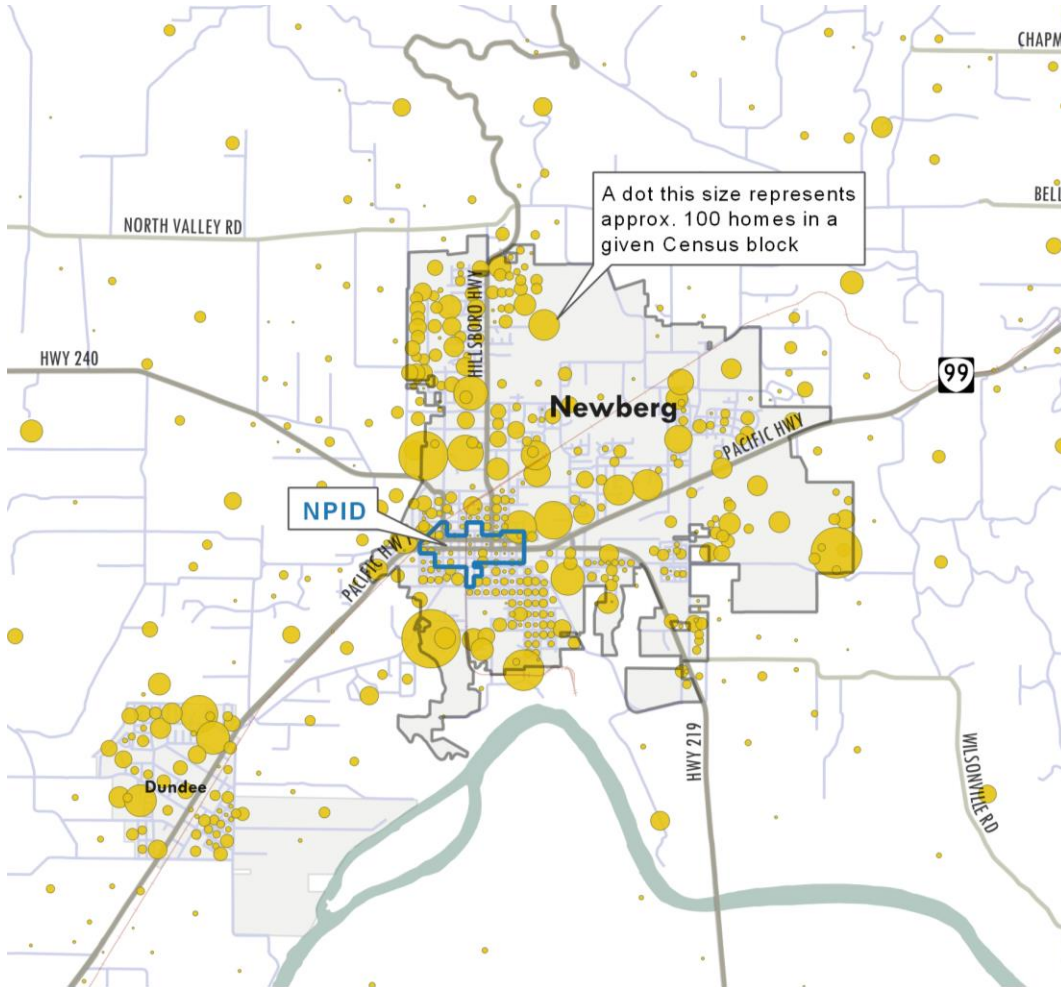
Figure 11 - Single-Family Detached Housing Permits, Newberg (2005 to 2015)



Source: U.S. Census Bureau

While illustrative of the overall housing economy, single-family housing is not likely to be a significant use in the NDIP study area, and although condominiums are an appropriate use for downtowns, market fundamentals (pricing, lending criteria) are greatly favoring apartments over condominiums in all but the most expensive urban housing markets like downtown Seattle or Portland. Over the long term, however, these conditions might change and the market could favor condominiums over apartments.

Figure 12 - Newberg Comparative Residential Population by Block Group (2013)



Source: U.S. Census

The map above illustrates the relative census block population of Newberg. Larger circles indicate higher populations in that census block, and smaller circles vice-versa.

The map shows that the population of Newberg is concentrated primarily in a north and south axis running through the downtown area and also spreading northeast along Pacific Highway.

Retail

CoStar reports that Newberg has 191 retail buildings totaling 1.32 million square feet of retail space. The market has a **low vacancy rate of 3.8 percent**. Rents vary widely by retail property type, condition, and configuration. New retail pads along 99W east of the downtown area are fetching between \$13 per square foot per year on a triple net basis³ to the high \$20s. A few asking rents for new, first generation space are even in the \$30s.

The map at right, like the residential map in the previous section, illustrates the relative size of retail employment by block group in Newberg. By using retail employee numbers as a proxy, the map shows that retail outlets are concentrated along Pacific Highway and downtown Newberg.

Downtown Newberg consists of 102 retail buildings that account for 30 percent of the citywide retail stock by square footage. Rents in the downtown area are a magnitude lower than the strip retail on 99W. **Average asking rates are between \$9 per square foot per year to \$12 per square foot per year** on a triple net equivalent basis.

Downtown retail suffers from years of disinvestment as retail trends in the 1970s through the 1990s encouraged auto-oriented retail growth outside of city centers. The most recent retail construction in downtown has been a two-tenant 1,700 square foot single-story building at the corner of Washington and East 1st Streets, and a 1,600 square foot Subway restaurant near the west entrance to the downtown area. Today many downtown Newberg retail buildings are still in average to fair condition, although properties have recently started to be redeveloped, with a handful of notable renovations and new tenants in the past five years.

Figure 13 - Comparative Retail Employment by Block Group (2013)

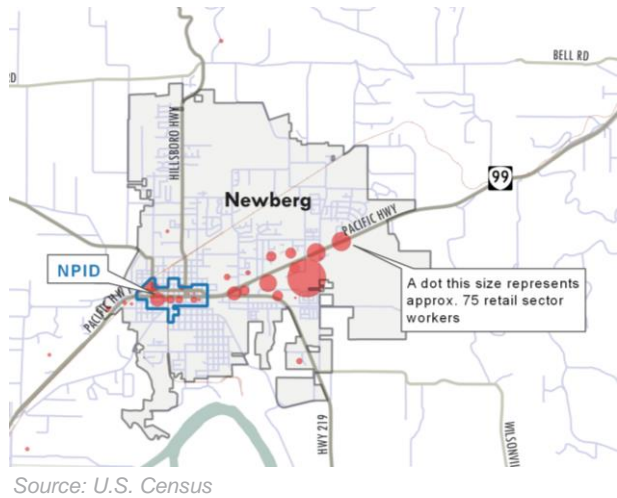


Figure 14 - Examples of Downtown Newberg Retail

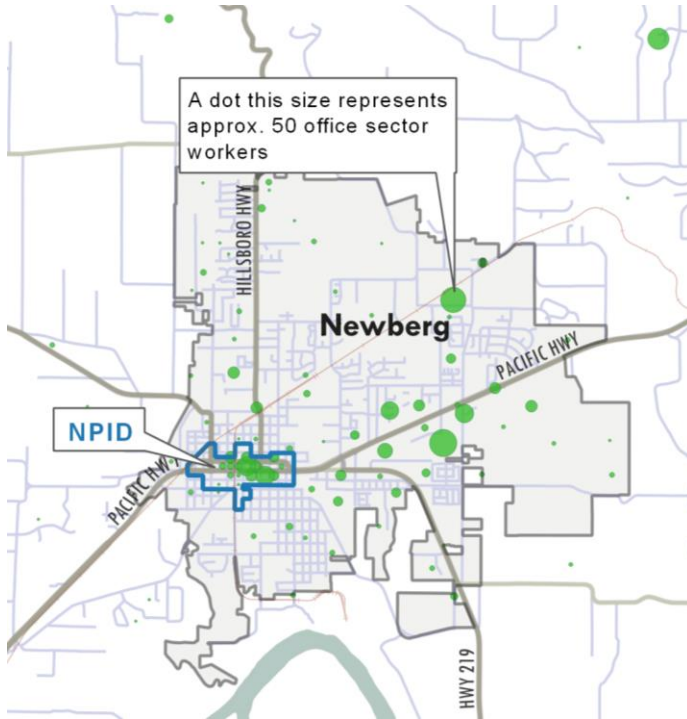


³ Triple net leases or NNN leases are commercial real estate leases where the tenant is responsible for all of the property's expenses, with the exception of structural maintenance and tenant management fees. NNN leases are typical for retail and industrial properties.

Office

The City of Newberg has 87 office buildings with a total of 429,969 square feet of rentable space. Typical to the Newberg office market are wood-framed Class B and C office buildings built between 1960 and 1990. **Office vacancy stands at 7.5 percent** according to CoStar; this is down from a high of almost 14 percent at the peak of the recession in 2009. Gross office rents⁴ currently average around \$16.60 per square foot per year. Examining current listings, there are a number of available spaces in buildings constructed in the past decade along the 99W corridor northeast of downtown. These availabilities have asking gross rents that range from \$14 to \$24 square foot per year.

Figure 16 – Comparative Office Employment by Block Group (2013)

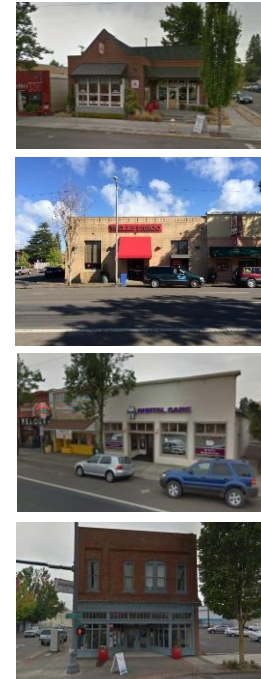


Source: U.S. Census

The map above illustrates the concentrations of office employment by block group in the city of Newberg. Office locations are more scattered across the city than retail outlets, but has strong worker concentrations in downtown and along Pacific Highway.

The office market in downtown differs from the citywide office market in a number of ways. The 27 office properties in downtown Newberg are, on average, smaller and older than offices citywide, with an average size of 3,021 square feet and average year built of 1958. Office vacancy downtown appears to be almost nonexistent, and in a related fashion, rents have been climbing in recent years. Although limited data is available, CoStar reports a **current direct gross rent of \$20.52 per square foot per year for the NPID area**. This number has jumped considerably from 2008 to 2012, when office rents were averaging around \$13 per square foot per year.

Figure 15 - Examples of Downtown Newberg Offices



⁴ Gross rent structures are rents in which the landlord pays for most of the property's expenses. For this reason, gross rents are typically higher than triple net rents. Full service gross rents refer to when a landlord is paying all of a property's expenses, whereas "modified gross" refers to when the tenant and landlord share expenses.

Industrial

At the northwest corner of the downtown study area, there is an area of approximately 4.6 acres that is zoned M-2 for light industrial use. Currently, these northwest blocks are home to businesses such as Anam Cara Cellars, Habitat ReStore, First Street Yoga, a produce stand, a couple of restaurants, and a specialty glass shop. Though industrial uses are still active in the area, the antiquated nature of industrial buildings and the pressure from increased demand for downtown commercial spaces is gradually changing the area's character. While not currently slated for a re-zoning in the City's Comprehensive Plan, the M-2 zone allows a broad range of commercial uses, including restaurants, athletic facilities, and retail secondhand stores, among other uses.

Figure 18 - Industrial Area in Study Area

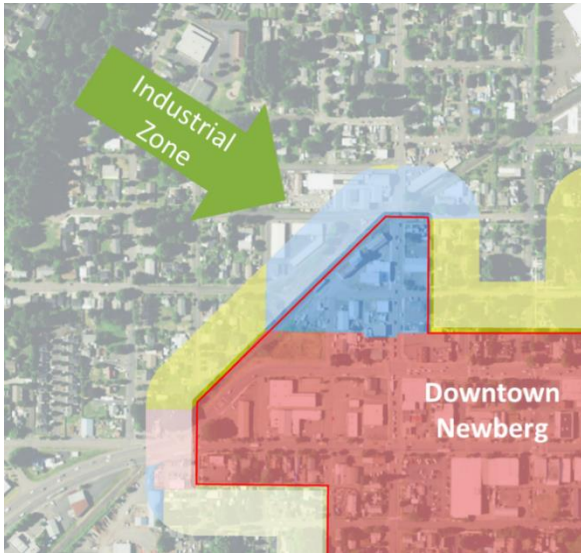
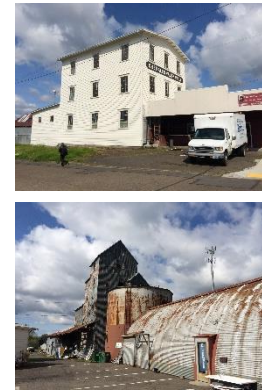


Figure 17 - The Chehalem Valley Mills



City staff recognizes the potential for redevelopment in this area, and is ready to assist property owners, should they be interested in a use that is pushing the limits of the M-2 zone, but is fitting with the growing neighborhood character.

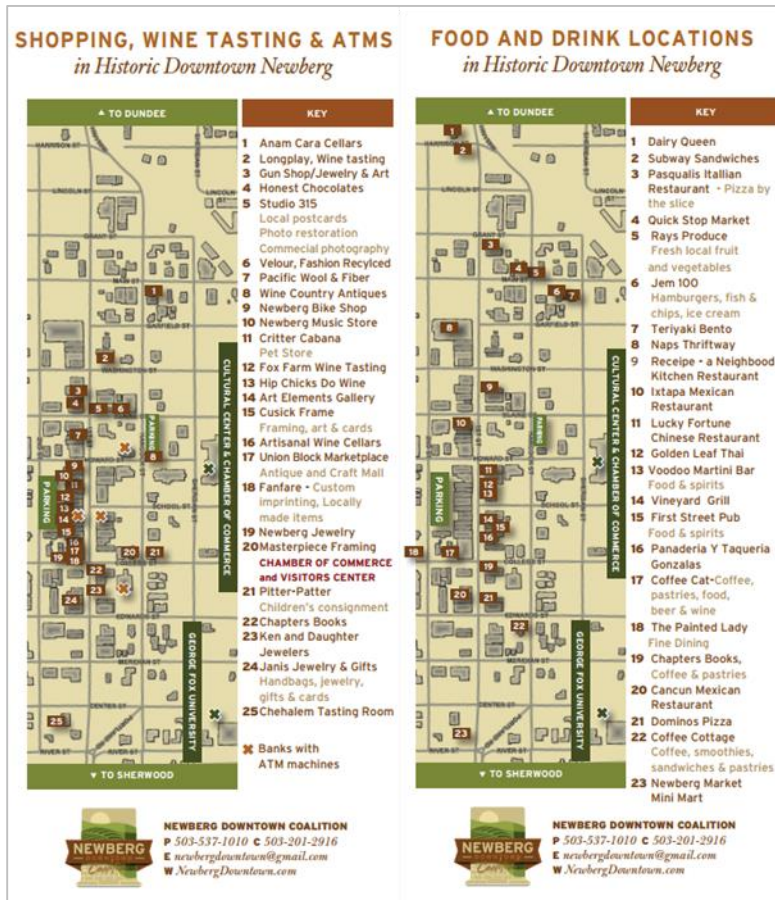
The most notable property in this emerging sub-district is the Chehalem Valley Mills site. Currently the home to a secondhand store, the former mill property has significant and distinct industrial buildings that could house a catalytic, activity-generating business or series of businesses such as a brewpub or co-working space for small businesses and entrepreneurs.

Other properties of note in this area include a few blocks of vacant or underutilized land adjacent to, and down the street from, the Mill site. These sites, with their orientation to downtown and M-2 zoning would be particularly ideal for “craft industrial” uses, such as bike builders, bakeries, breweries, or woodshops.

Newberg Tourism and Visitor Information

Newberg has a thriving tourism industry. Located in Yamhill County's Wine Country, there are over 200 wineries within a 20-minute drive from downtown. Other area attractions include the Chehalem Glenn Golf Course, art galleries, the Newberg farmers market, heritage sites, and museums. Newberg hosts a number of festivals over the course of the year including the Old Fashioned Festival, the Newberg Camellia Festival, the Willamette Valley Lavender Festival, and the Oregon Truffle Festival. The 85-room Allison Inn & Spa resort located in Newberg is frequently ranked as one of the best hotels in the nation and attracts visitors from around the world to Oregon's Wine Country.

Figure 19 - Newberg Downtown Coalition Maps



Source: Newberg Downtown Coalition

Downtown Newberg currently boasts 11 wine tasting rooms, numerous restaurants, art galleries, and small retail shops. Both the Chehalem Valley Chamber of Commerce and the Newberg Downtown Coalition are active supporters of downtown tourism. Each advocacy group offers robust websites with detailed visitor information.

Downtown Newberg Market Assessment

Opportunities and Constraints

The emergence of strong market momentum presents a number of opportunities for downtown Newberg. For example, by capitalizing on the already vibrant and growing restaurant and niche retail scene, Newberg can reinforce its position as the focal point for the Willamette Valley's Wine Country. Another market opportunity for downtown Newberg would be to better engage with the George Fox University (GFU) community. GFU students already are some of the most active downtown users. More student housing and student-oriented businesses in the downtown would better support existing businesses and add to the vibrancy and character of the downtown area.

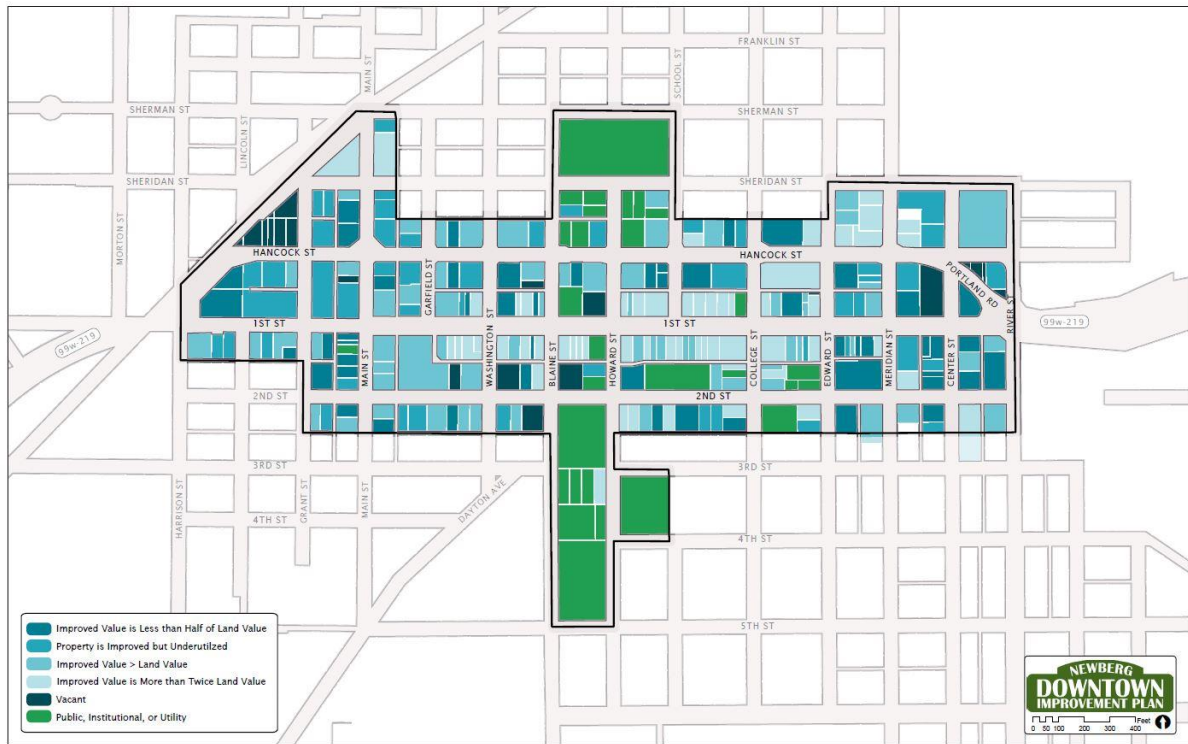
Downtown Newberg isn't without its constraints however. As verified through stakeholder interviews, traffic congestion and noise are still major hurdles for downtown livability. The Newberg-Dundee bypass should alleviate most of this issue. The relatively small size of the Newberg market also presents a challenge to would-be business owners. Many businesses look for higher population concentrations than are present in downtown Newberg, before they're confident that they'll have enough daily customers to support their bottom lines. This constraint will require careful business planning and marketing in the short term, and a concerted effort to build more housing in and around downtown in the long term.

Opportunity Areas

With the downtown market improving, it is worthwhile and timely to consider and plan where future growth and development will and should take place in the area. The map below illustrates the ratio between improved values and land values. This ratio is commonly used to understand which properties in a given area likely have buildings that are dilapidated or underutilized; those properties with land values that are close to or higher than improved value. In the map below, the darker blue the tax parcel, the closer the land value is to the improved value (green tax parcels are public, utility, or institutional properties). Dark areas of this map therefore are more likely to be opportunity sites for redevelopment.

As the map illustrates, centrally located properties on First Street have high improved values, and therefore are more likely to be stable, cash-flow producing properties. In contrast, at both east and west ends of the study area there are numerous dark blue properties, indicating either vacant or underutilized parcels.

Figure 20 - Downtown Newberg, Improved to Land Value Ratio Map (2015)



Source: City of Newberg, Parametrix, and Leland Consulting Group

Conclusion

Newberg, Oregon is a steadily growing community that is poised and ready for transformation. Newberg has many positive attributes that make it a desirable place to live and work including its proximity to the Portland Metropolitan region and Oregon’s Wine Country, a strong and diverse economy, a four-year private university and a community college campus, and an active and engaged community.

As illustrated in this report, Newberg’s downtown is already a strong focal point for the community. Market indicators show that there is renewed interest in retail and office spaces in downtown. Declining vacancy and rising rents are signs of positive change within the NDIP study area. A commercial real estate lender based in Newberg confirms these findings stating that their bank has seen more inquiries and requests recently regarding downtown properties.

APPENDIX

C

TECHNICAL MEMO #3:
MARKET STUDY FUTURE POTENTIAL DEVELOPMENT



NEWBERG DOWNTOWN IMPROVEMENT PLAN



FUTURE POTENTIAL DEVELOPMENT REPORT

PREPARED BY



LELAND CONSULTING GROUP

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Introduction

Downtown Newberg is poised to grow substantially in the next five to 15 years. With a rapid citywide growth rate, and renewed interest by boomers and millennials to live, work, and play in walkable city centers, downtown Newberg will be transformed in the coming years.

This Downtown Newberg Future Potential Development Report analyzes growth trends that will affect the city's center between the present time and 2020, the short term, and 2030, a long term view. The report dives into population and employment forecasts in order to understand where Newberg stands today demographically and economically, and forecasts future rates of growth and potential population and employment numbers for the downtown area.

The report then examines land values and improvement values in downtown Newberg in order to identify potential redevelopment areas and establish the capacity for the city center to absorb future growth.

Building on the growth forecasts and with an understanding of growth trends of Newberg's population and economy, short-term and long-term downtown growth targets are presented along with expected residential and commercial development types.

Target Outcomes

Newberg's residential market will drive development in the community generally and the city center specifically for the foreseeable future. With the strong population growth rate, Newberg is forecasted to have a demand for significant numbers of housing units in the short and long range. If the city is able to capture even a small portion of this demand in the downtown area, it will mean substantial new development and opportunities for existing and new businesses.

Commercial development in downtown will continue to build on the momentum of visitor focused retail and restaurants, especially in relation to the wine industry. Community focused businesses will respond proportionally to the expansion of the downtown residential market. Like infill housing, it's crucial for the city and downtown stakeholders to maintain a focus on encouraging business creation in downtown Newberg through supportive policies and proactive engagement with business and property owners. Downtown Newberg already has a community of successful business owners - helping them achieve their business growth goals and providing them room to expand within the downtown community will reinforce the momentum of this project and help achieve the desired outcomes envisioned by the community.

Overview

This Future Potential Development Report has been prepared as part of the Newberg Downtown Improvement Plan (NDIP). In early 2015, the City of Newberg, Oregon was awarded a grant by the Oregon Department of Transportation (ODOT), and the Department of Land Conservation and Development (DLCD) to develop a roadmap for improving Newberg's downtown. This project, the NDIP, will focus on land use, transportation, and design solutions to achieve a thriving and livable downtown that meets the community's visions and aspirations. The NDIP is being led by the City of Newberg with support from a project consultant team, a community advisory committee, and general public input. The NDIP is anticipated to be complete in winter 2016/2017.

The purpose of this Future Potential Development Report is to build upon the vision and concepts that are being developed through this project, along with the Newberg Travel Demand Model, and set achievable development targets and densities for the near term (2020) and the long term (2030). These targets, in turn, will serve as guides for plan refinement and eventually the implementation strategy. This report will help the city and community stakeholders better understand the shape of development to come in downtown Newberg.

Key Questions

- How much growth of both population and employment is downtown Newberg likely to capture in the near future?
- What are some of the factors that are going to influence the density and type of future development in downtown Newberg?
- How is downtown Newberg likely to change in the next five years? What about the next 15 years?
- What types of housing can be expected to develop in the downtown in the short and long range?
- Where in downtown is Newberg likely to see employment growth?
- Given the above, what are realistic development targets that the City could plan towards in order to guide the downtown implementation strategy?

Where Newberg Stands Today

Newberg, Oregon is a city of 22,900 people¹ located 26 miles southwest of Portland, Oregon. Newberg was settled in the mid-19th century, and later platted and incorporated as a city in 1889. Today Newberg is known as the gateway to Yamhill County's many wineries and one of the focal points of the Willamette Valley's Wine Country. Newberg is well positioned between the growing Portland metropolitan area to the northeast and the agricultural economy of the surrounding Willamette Valley. Below is a snapshot of Newberg's demographic profile.

- Newberg outpaced the state's growth rate during the decade of 2000 to 2010 and is currently continuing to grow at a faster rate than the rest of Oregon. **Between 2015 and 2020 Newberg is forecasted to grow by an average 1.89 percent per year².**
- The average household size is **2.64 people, compared to Oregon's average of 2.45.**
- Nearly a quarter of households (23 percent) are made up of just one person and 33 percent are made up of two people. **Together, one and two-person households make up 56 percent of the total population.** Seventeen percent of Newberg households are three people and 15 percent are four people.
- **Newberg's household median income is \$58,602**, which is slightly higher than both the Oregon and U.S. household median incomes.
- As of 2010, about **59 percent of Newberg housing units are owner-occupied** and 35 percent are rented.
- Approximately 28 percent of Newberg's population is a high school graduate or has a GED; 25 percent have had some college, but no degree; **over 20 percent have a bachelor's degree; and 9.3 percent have a graduate degree.** These percentages are in-line with the State of Oregon numbers.
- While Newberg's population is fairly homogeneous at 85 percent white, **over 14 percent of the population identifies as Hispanic.**³

¹ City of Newberg, 2015 numbers

² City of Newberg, best estimate from recent growth

³ Demographics Source: ESRI Business Analyst

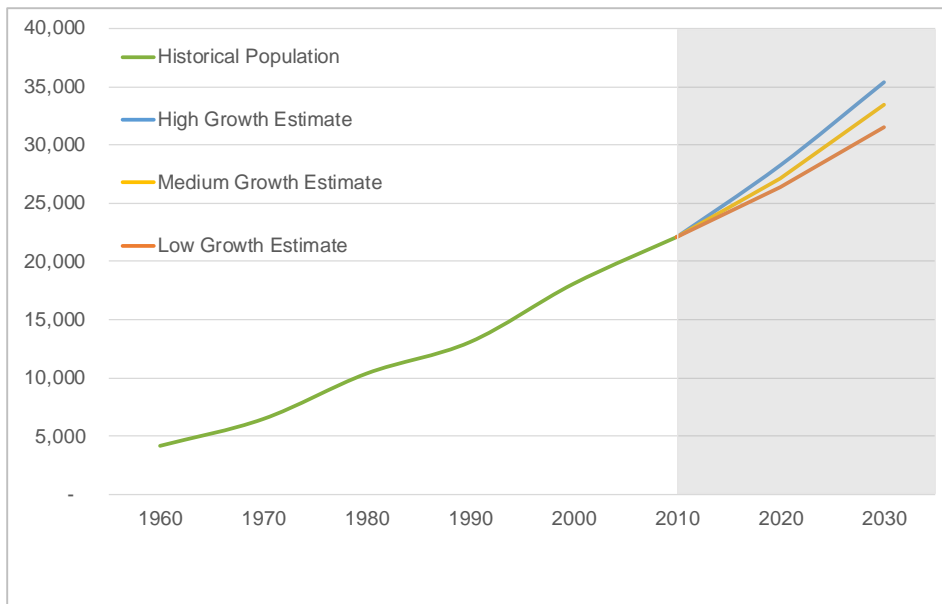
Newberg Population Growth

A key metric in understanding how a place will change is to understand how the area’s population is expected to grow or contract. Population growth creates a direct need for more housing, more jobs, and more businesses and services. Conversely, a shrinking population reduces demand for housing, jobs, and services.

In the recent past, Newberg has outpaced the rest of the State of Oregon with its population growth rate. Between 2000 and 2010 Newberg grew by over 20 percent, while the State of Oregon grew by 12 percent⁴. Newberg’s growth during this ten-year period is equivalent to an annualized growth rate above two percent. A two percent growth rate may not sound like a much, but continued growth at a two percent rate would be mean that Newberg would double its current population in approximately 35 years. A two percent growth rate applied to its current population equates to approximately 475 new residents every year, although recent population growth has not been as robust as projected. The Portland State University Population Research Center is the applied demography institute in the state that is responsible for official population forecasts to be used for Urban Growth Boundary expansions and other major land use policy decisions. Their forecasts incorporate detailed assumptions on birth and death rates, migration rates, and economic cycles.

Their most recent population forecast for Newberg, published in 2012, projects Newberg continuing to grow rapidly through the year 2030. Recent projections see Newberg’s population growing at an average of 1.89 percent per year to 2020. Previous growth rates have not been as high. For example, from 2006 to 2015 Newberg grew on average at a rate of 1.02 percent⁵. The chart below illustrates a range of possible growth rates through the short and long term. The lowest estimate uses the 2006 to 2015 rate, the medium growth rate assumes that the 1.89 growth rate projection continues in the long run, and the high growth estimate uses the Population Research Center’s highest growth figure, 2.7 percent average annual growth.

Figure 1 - Historical and Projected Future Population of the City of Newberg



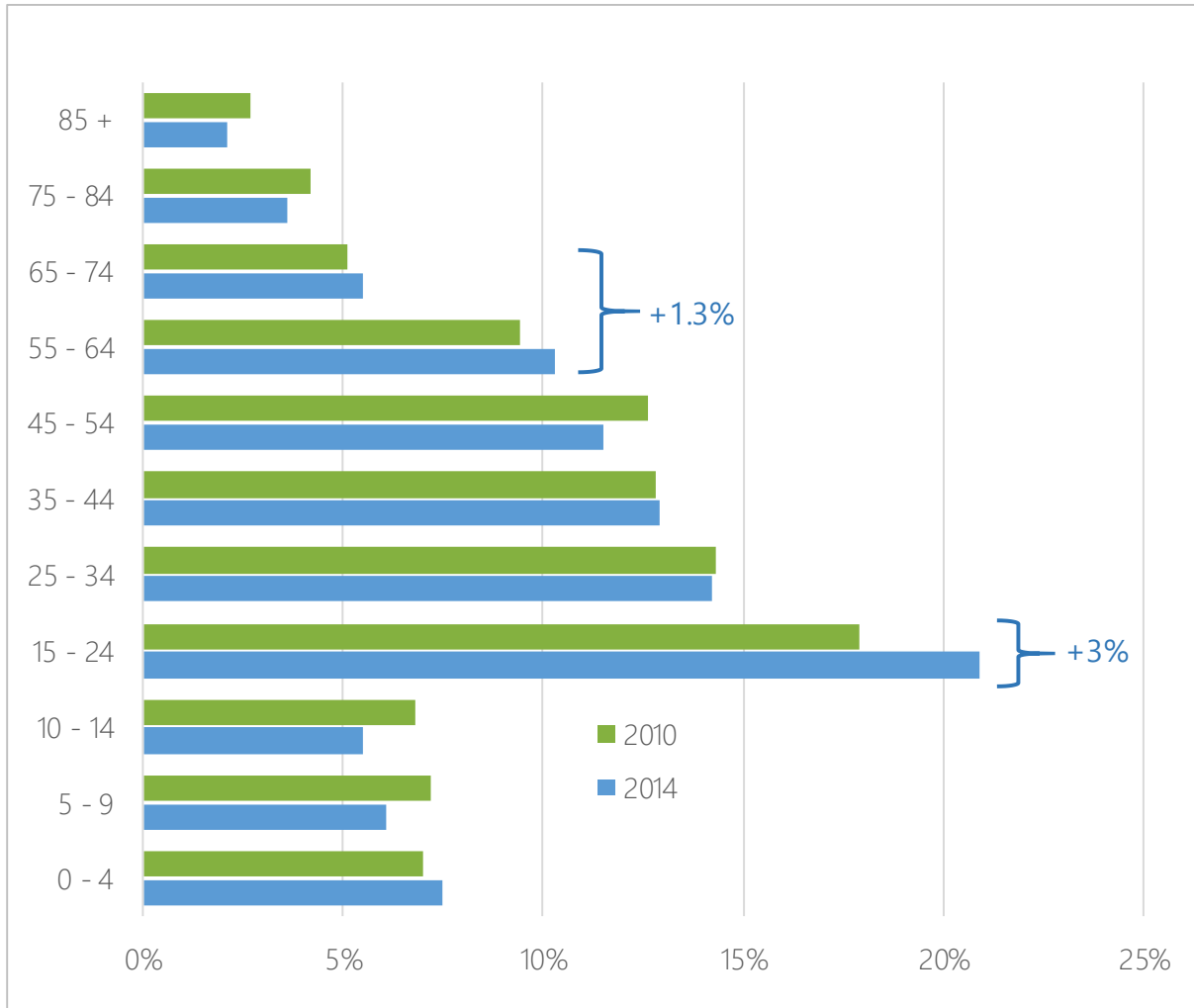
Source: Population Forecast for Yamhill County Oregon, its Cities and Unincorporated Area 2011-2035. Portland State University, Population Research Center. Fall 2012, City of Newberg, Leland Consulting Group

⁴ US Census

⁵ City of Newberg

The demographic composition of the Newberg population also continues to evolve. Between the 2010 census and more recent population estimates, the Newberg population has expanded in certain age cohorts and shrunk in others. The majority of these changes are credited to net migration (movers-in minus movers-out) as opposed to natural increase from more births than deaths. The chart below illustrates these age group changes.

Figure 2 - Newberg Population by Age Group (2010-2014)



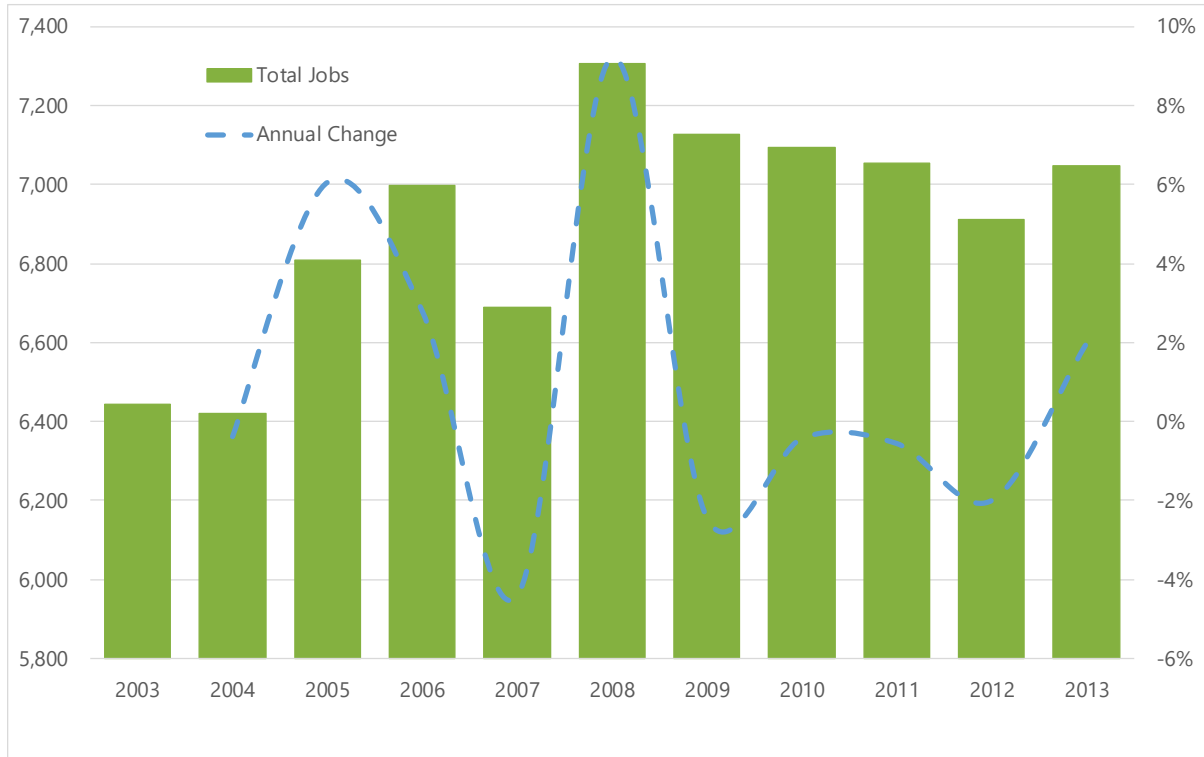
Source: US Census Bureau

In recent years **the population growth appears to take place in the age cohorts of young adults and seniors between the ages of 55 and 74**. This is a common trend among Oregon cities, although the growth of Newberg's young adult population is more robust than most other cities. This growth in the young adult population is likely linked to the expanding enrollment at George Fox University.

Newberg Employment Growth

Employment in Newberg has also grown dramatically in the past few decades, although this growth has not been as consistent as population growth. This more volatile change in employment is similar to what is seen in most cities, as economies go through cycles, firms hire new workers and expand their businesses or shed workers and close up shop. The recent “great recession” hit Newberg as hard as most communities of similar size. Job growth evaporated in 2009 and Newberg has yet to reach peak employment numbers from 2008. Since 2012, jobs, generally, appear to be returning.

Figure 3 - Newberg Historical Job Growth



Source: U.S. Census Bureau

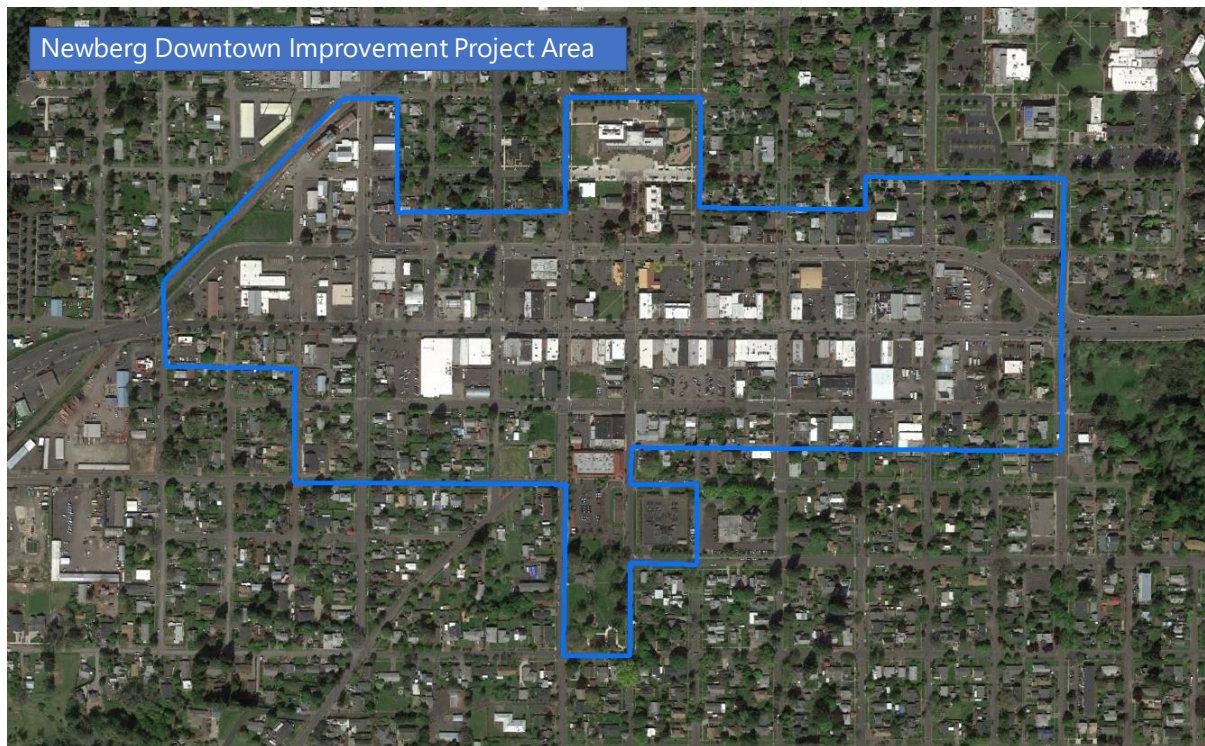
The travel demand model used for the Newberg Transportation Plan projects that Newberg employment will continue to grow at a rate of approximately three percent per year in the long run. **Their estimates put total Newberg employment over 14,000 jobs by 2035.** As the chart above illustrates, annual job change fluctuates dramatically. **The average annual growth rate in jobs between 2003 to 2013 was just one percent⁶.**

⁶ US Census

Downtown Newberg Development Capacity

Now that we've seen the robust growth that the entire city of Newberg is facing, what is the capacity for downtown Newberg to absorb a portion of this growth? The first question is, "how much space is there to develop?" Using strictly the project boundaries of the Newberg Downtown Improvement Project, there are 92 acres of land in downtown Newberg.

Figure 4 - NDIP Study Area

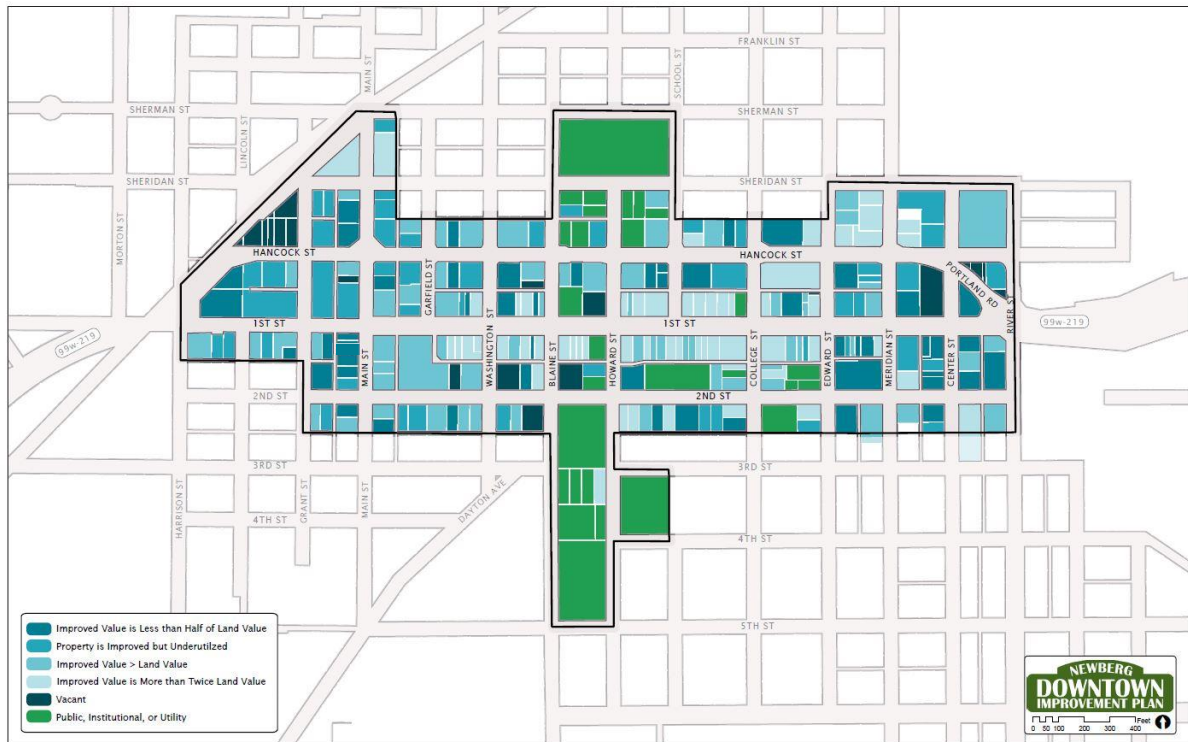


Thirty-eight of these acres are within rights of way (ROW); typically, streets, roads, sidewalks, utility easements, and other infrastructure-related land that is undevelopable. A further 10 acres of land within the NDIP boundary contains public buildings, parks, and institutions such as a Chehalis Cultural Center, and are therefore not developable either. This leaves 44 acres of land in private ownership.

Where are there redevelopment opportunities within these 44 acres of land? The map on the next page illustrates the ratio between improved values (structures) and land values on each property (tax parcels). This ratio is commonly used to understand which properties in a given area likely to have buildings that are dilapidated or underutilized – those properties with land values that are close to or higher than the improved value.

In the map below, the darker blue the tax parcel, the closer the land value is to the improved value. Dark areas of this map therefore are more likely to be opportunity sites for redevelopment. Conversely, the properties on the map that appear light blue are properties with structures that are worth significantly more than their underlying land. These properties are in good economic health and therefore not good candidates for major redevelopment. Furthermore, many of these properties (see the area around the core of First Street) contain well taken care of, historic buildings that define downtown Newberg's charming character and form. In alignment with downtown Newberg vision documents, future development in the area should celebrate and complement the historical qualities and design elements of these properties. Green tax parcels on the map are the public, utility, or institutional properties that are undevelopable.

Figure 5 - Downtown Newberg, Improved to Land Value Ratio Map (2015)

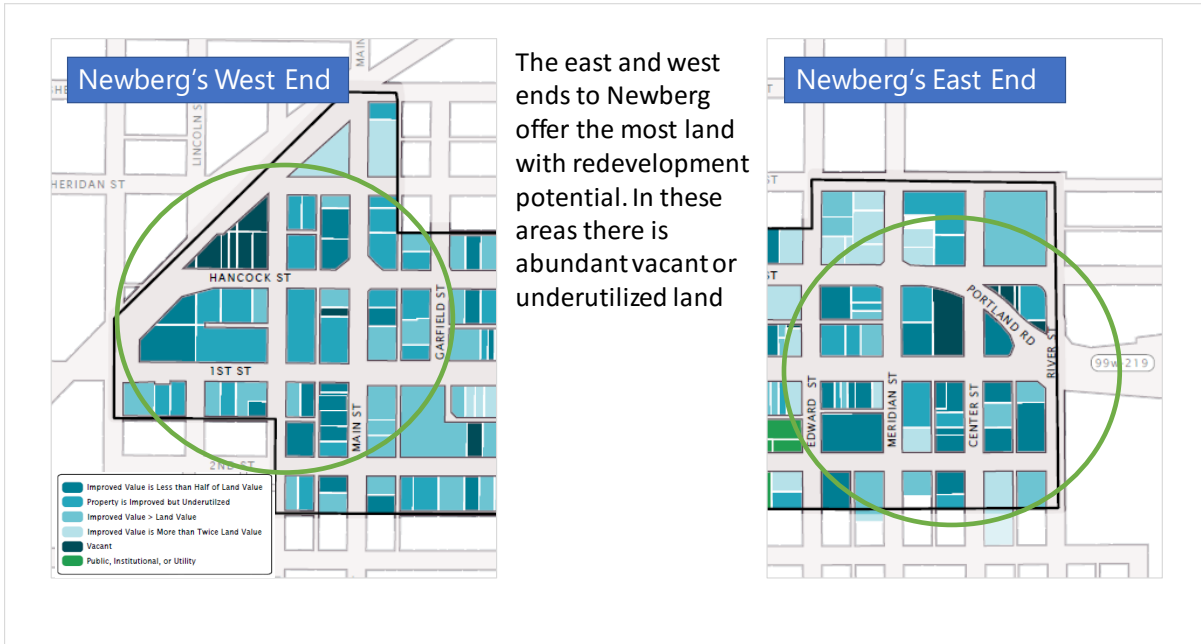


Source: City of Newberg, Parametrix, and Leland Consulting Group

Of the 44 acres of private land in downtown Newberg, 12 acres contain the lightest shade of blue and, as just described, are therefore not redevelopment opportunities. Another 7 acres appear to be properties with structures that are in fair to average condition and therefore not likely to be the first properties to redevelop; **this leaves 26 acres that are either vacant or underutilized**. Concentrations of these properties cluster around the east and west ends of the downtown area, sporadically along 2nd Street, and, to a lesser extent, Hancock Street. Unfortunately, many of these properties are quite small and would need to be assembled together in order to create a size large enough to efficiently program most new development types. Furthermore, many properties may be underutilized, but still contain significant improvements. Redeveloping or razing these structures may prove to be cost prohibitive in the short term. Therefore, while 26 acres is a large amount of land that could be redeveloped, many of these acres, if not most, are not development-ready either physically or financially.

The largest tax parcels on either end of downtown present the most interesting locations for redevelopment. Their locations are natural gateways to the city's core, provide good exposure for signage and access for vehicles, and don't face the challenges that come with the need to assemble multiple small parcels.

Figure 6 - Downtown Newberg Redevelopment Locations



Source: Leland Consulting Group

Downtown Newberg Future Forecast

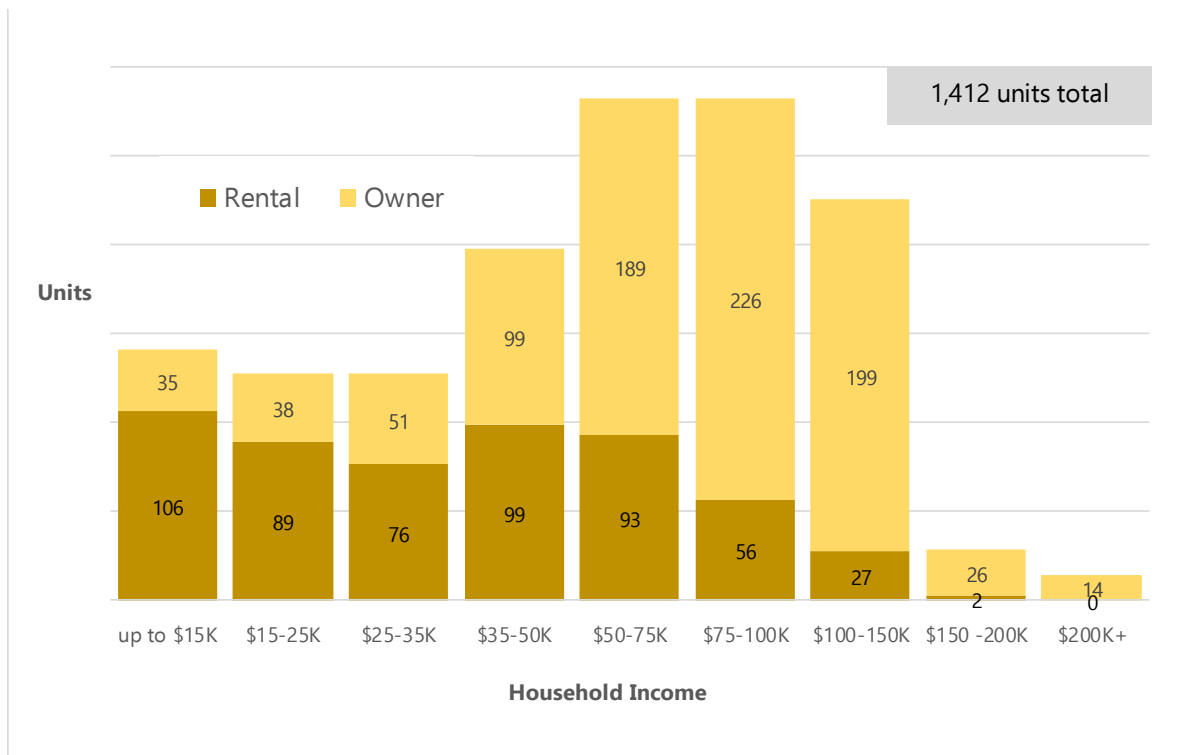
Downtown Housing Targets

Newberg’s population continues to grow at an accelerating rate. All of these new residents will need housing. A lot of housing.

Housing formation, that is the creation of a new group of people (or a single person) moving into a new housing unit, tracks closely with population growth. However, it typically occurs most often in young adults and in seniors. Young adults and seniors are coincidentally also the two age cohorts where Newberg is seeing the most growth. Housing formation forms the basis for housing unit demand and one can infer from household formation the approximate number of housing units that a city will need in order to house future residents.

Using the current level of households in Newberg and a projected rate of household growth, one can simulate the demand for housing units in the city in the coming years. Here we have used the long-term scenario of 2030, projected forward from 2015 at the lowest annual population growth rate, similar to Newberg’s recent rate of population growth. The graph below illustrates the projected total demand for housing units over this time period broken down by income bracket and household tenure (renter vs. owner).

Figure 7 - Long Term Growth and Housing Needs by Income, City of Newberg



Source: Population Forecast for Yamhill County Oregon, its Cities and Unincorporated Area 2011-2035. Portland State University, Population Research Center. Fall 2012, and Leland Consulting Group (based on trending in housing growth, income brackets, and housing tenure)

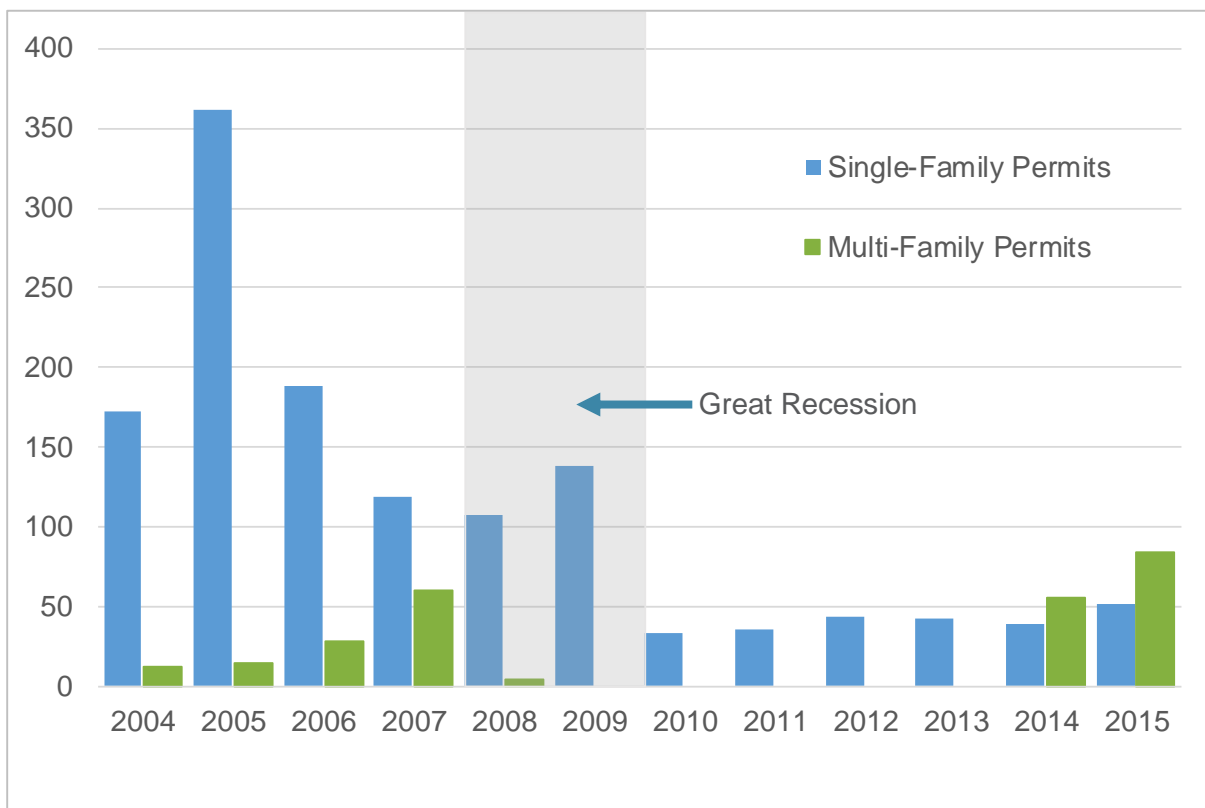
This model shows a projected demand for over 1,400 new housing units in Newberg by the year 2030. This projection is lower than projections made by the PSU Population Research Center and the Newberg

Transportation System Plan (TSP) Travel Demand Model, but in line with recent city population growth rates.

An additional 1,400 new housing units by 2030 equates to a demand over 90 new units per year. We've used income and housing tenure trends to extrapolate demand by income bracket and housing tenure type, respectively. In all, 549 total new rental units will be needed, equaling over 30 new rental units per year. Despite home ownership rates slowly declining, Newberg will still need over 870 new ownership housing units over the time frame, or approximately 58 per year.

This projected housing demand contrasts slightly with recent housing supply additions. Since the recession of 2008-2009, housing starts have slowed to a crawl in Newberg. Annual single family permit counts have, just in the year 2015, exceeded 50 units per year for the first time since 2009. Few multifamily permits have been pulled since before the recession, but starting in 2014 have started to pick back up⁷.

Figure 8 - Annual Housing Permit Counts in Newberg, 2004 to 2014



Source: SOCDS Database, US Department of Housing and Urban Development, City of Newberg, Leland Consulting Group

In order to meet future demand, housing supply will have to expand considerably in the coming decades.

Future Housing Location and Housing Supply Targets

Many factors could influence the actual demand for homes in Newberg over the coming decade and a half. As mentioned previously, the two age cohorts within the community that are growing the fastest are young adults (millennials) and seniors (boomers). This mimics the national trend of boomers and millennials changing the way the cities organize work, play, and housing choices.

⁷ Source: SOCDS Database, US Department of Housing and Urban Development.

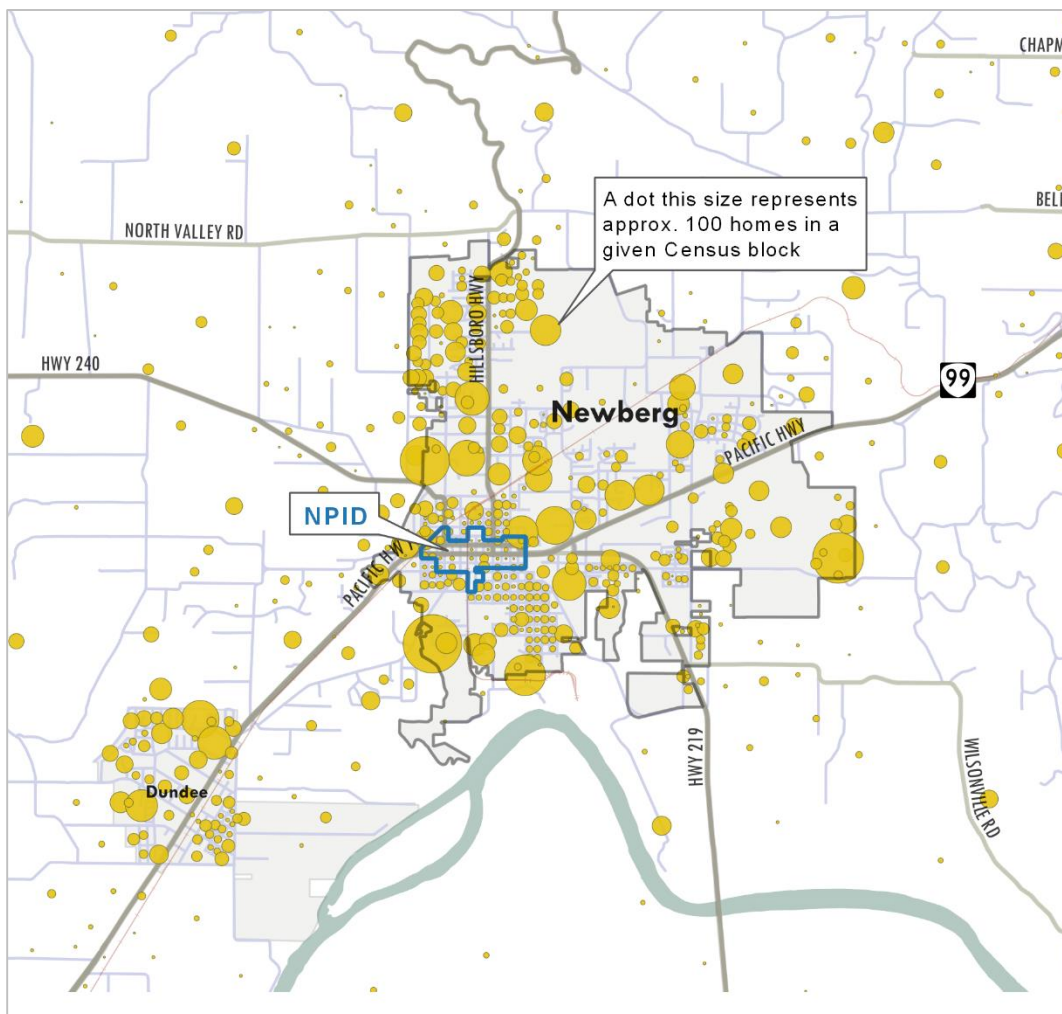
Downtown Newberg Future Potential Development Report

Recent studies have suggested that both groups tend to be drawn to walkable, mixed-use neighborhoods that have a variety of basic daily services and housing types within easy walking distance. They value quality over quantity and desire a sense of community and place in their neighborhoods. Research suggests that these two groups will drive demand for infill development in areas such as downtown Newberg that are walkable and proximate to commercial and community amenities, and they will significantly increase demand for multifamily housing (both ownership and rental).

This housing demand analysis shows that Newberg is going to need to provide many new housing units in the coming years in order to support the city's population growth. Where will all of these homes be located?

As the following map shows, Newberg's residential population primarily stretches north and south from the downtown area, as well as to the northeast from downtown, up the spine that is Highway 99W. It appears that there is a significant quantity of land currently within Newberg's Urban Growth Boundary (UGB) that could absorb a sizable portion of the growing housing demand.

Figure 9 - Newberg Comparative Residential Population by Block Group (2013)



Source: U.S. Census

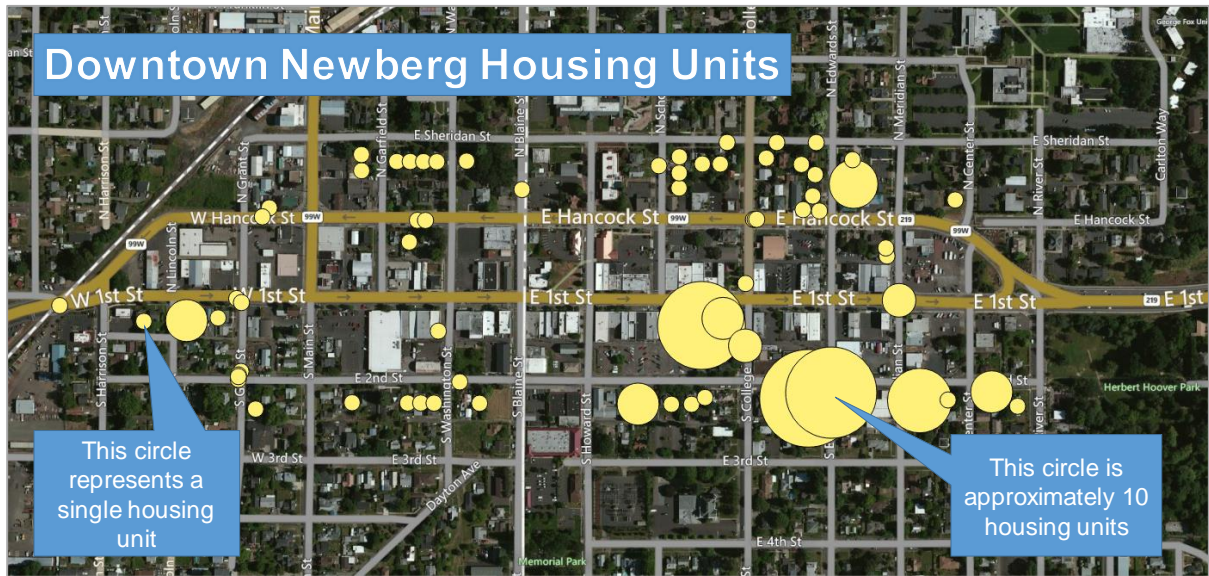
With the desires of millennials and boomers to be in walkable mixed use neighborhoods, downtown Newberg is likely to see a high demand for housing in the near future. Currently there are 140 housing units in downtown Newberg. Of this total there are:

Downtown Newberg Future Potential Development Report

- 55 detached single family homes;
- 11 duplex or triplex units;
- 21 upstairs units in 10 buildings (located primarily on East First Street), and;
- 53 multifamily units in five apartment complexes.

The map below illustrates the housing unit concentrations. Generally, the area south of East First Street has more multifamily housing units and the area north of Hancock contains more single family homes.

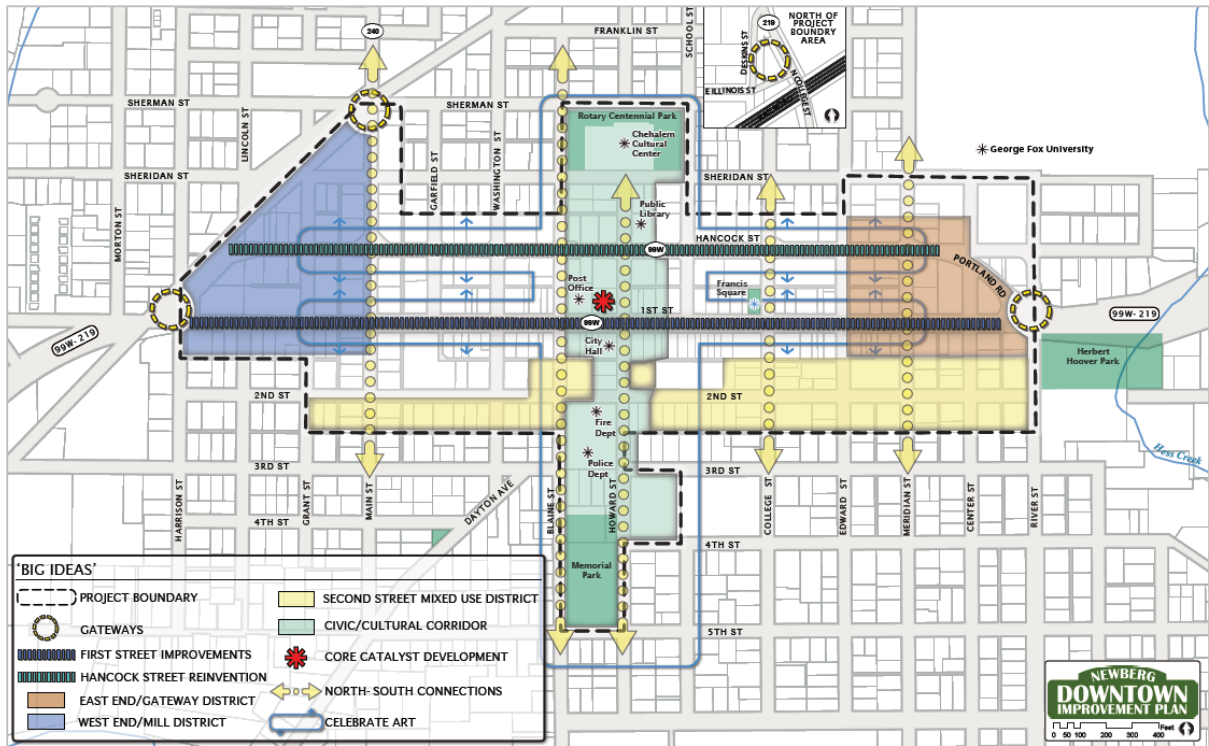
Figure 10 - Downtown Newberg Existing Housing Units



Source: Newberg Downtown Coalition and Leland Consulting Group.

This project, the Newberg Downtown Improvement Plan, has presented focused concepts on how and where downtown Newberg could grow, building upon the desired outcomes envisioned by the community. These “Big Ideas,” illustrated in the map below, identify how new districts could shape downtown in the years to come.

Figure 11 - Newberg Downtown Improvement Plan "Big Ideas"



Source: Leland Consulting Group, Greenworks

In order to achieve these project goals, Newberg should aim to respond to the growing citywide housing demand with a special focus on new housing unit creation in the downtown. Targeting a downtown capture rate of the overall growth in housing supply will help the city achieve its vision for a vibrant downtown while also responding to market demand.

If, for example, downtown is targeted to capture five percent of the projected citywide housing demand, using the growth rates from this study, that would mean that by 2020 there would be over 20 new housing units in the area, and by 2030 over 70 new housing units. This target 5 percent capture rate would mean that downtown Newberg should aim to support the construction of 5 new downtown units per year. The table below illustrates a range of downtown housing target capture rates and what these rates would mean for new housing needed per year in downtown Newberg.

Downtown Newberg Target Housing Unit Capture (2020 and 2030)										
Year	Projected Total Citywide New Housing Unit Demand	Downtown Capture Rate								
		5%	10%	15%	20%	25%	30%	35%	40%	
2020	471	24	47	71	94	118	141	165	188	
2030	1,412	71	141	212	282	353	424	494	565	
Downtown Units Needed Per Year to Achieve Target Capture Rate		5	9	14	19	24	28	33	38	

In reality, there are barriers that will prevent the downtown area from achieving the higher capture rates in the short to mid-term. These barriers include a lack of available development-ready sites, zoning regulations (such as a requirement of ground floor commercial space in all new buildings regardless of location in the C-Zone), need for parcel assemblage, and weak market fundamentals, (i.e., sales values or rents do not justify new construction or redevelopment).

To fully achieve the desired outcomes of a vibrant and thriving downtown and fulfill the visions of the “Big Ideas” **Newberg should target to capture as many housing units as possible downtown in the short and long range.**

In the short term, Newberg should aim to support low-cost infill housing projects in downtown. Housing types like townhouses, duplexes, and triplexes are inexpensive to construct and flexible enough to fit on a variety of site sizes and configurations. As envisioned in the “Big Ideas” map above, East 2nd street is an ideal location for these development types. Typically, these housing types are built to 15 to 22 units per acre. **With a citywide housing unit capture rate of 5 to 10 percent Newberg should plan for one to two acres of downtown to develop into housing by the year 2020.** Of course, many of these housing types may not conform to current zoning regulation in Newberg’s downtown. For example, ground floor commercial space is currently required for all new development in the downtown area. Making ground floor commercial an option, but not a requirement, would allow for more housing development in the downtown area in the short term. Code changes, incentive programs, and other actions the City can take to achieve the goals of the Newberg Downtown Improvement Plan will be addressed in the forthcoming Implementation Plan.

In the longer term, Newberg can expect a wider variety of infill housing types to be constructed. As rents incrementally climb higher, denser housing types will become feasible. Larger parcels and parcel consolidation at either end of the downtown area and along Hancock Street offer the best opportunities for developments that can meet this housing demand most efficiently. Vertical mixed use developments of three or four stories will be ideal for these sites. These projects typically are built to a density of 40 to 70 units per acre.

With a target of 5 to 10 percent capture rate of citywide housing unit demand, and assuming a mixture of low-cost infill housing and larger multifamily buildings, **downtown Newberg should plan for another one to two acres of development between 2020 to 2030.** This would likely be achieved through a mix of row house developments and apartments or condominiums that are built incrementally over the next 15 years. For example, this target could be achieved through several housing projects built over time, as illustrated below:



Housing Type: Rowhomes

Units Per Acre: 15 to 22

Construction Cost

\$	\$\$	\$\$\$
----	------	--------

Rent Needed for Feasibility

\$	\$\$	\$\$\$
----	------	--------

Sample Program for Downtown Development			
Project Type	Site Size (SF)	Number of Units	Units Per Acre
Townhomes	10,000 SF	5	22
Duplex	5,000 SF	2	17
Townhomes	10,000 SF	5	22
FourPlex	7,500 SF	4	23
Duplex	4,000 SF	2	22
Triplex	7,500 SF	3	17
Duplex	5,000 SF	2	17
Townhomes	12,000 SF	6	22
Triplex	6,000 SF	3	22
Apartment Building	30,000 SF	30	44
Apartment Building	40,000 SF	45	49
Total Number of Projects	Total Developed or Redeveloped Land	Total Units Developed	Average Unit Density (Units per Acre)
11	137,000 square feet (3 acres)	107	26

Source: Leland Consulting Group

In total, the target capture rates mean that Newberg should aim to grow downtown housing by 20 to 50 housing units in the short term and 70 to 140 units in the longer term. **This will add hundreds residents to the downtown area and consume two to four acres of downtown land.**

Growth in downtown housing in Newberg will transform the form and activity level of the center of the community. In order to achieve these target numbers, the City and community partners need to continue taking concrete steps towards encouraging development and maintaining focus on place making in the downtown. A to-be-released companion piece to this report will provide an action and implementation strategy to guide policies towards achieving these targets.

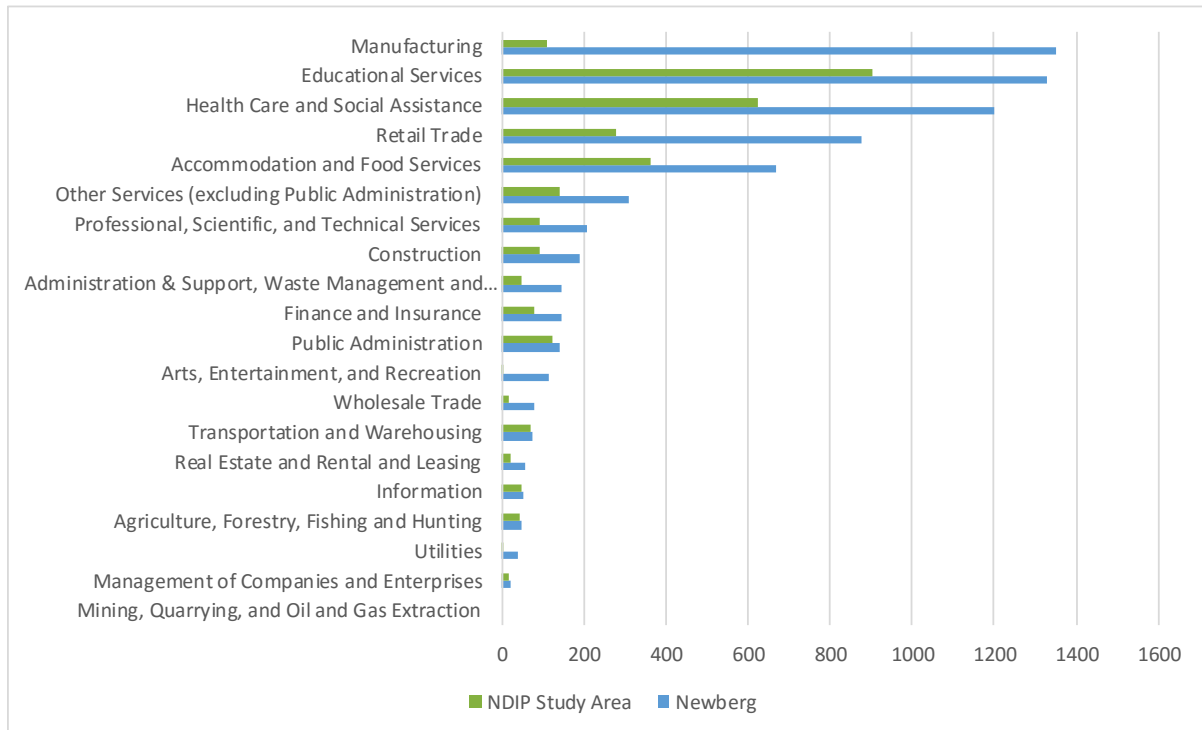
Figure 12 - Infill Housing and Mixed Use Development Examples



Downtown Business and Employment Projections

Newberg has over 7,000 full-time workers, with a few large employers that form the base of its economy. At the top of the list is notable dental equipment firm, A-dec, with over 800 employees. Providence Newberg Medical Center, George Fox University, Portland Community College, and the Allison Inn & Spa resort are other significant employers. With five elementary schools, two middle schools, and a four-year high school, Newberg School District also contributes significantly to employment in the area.

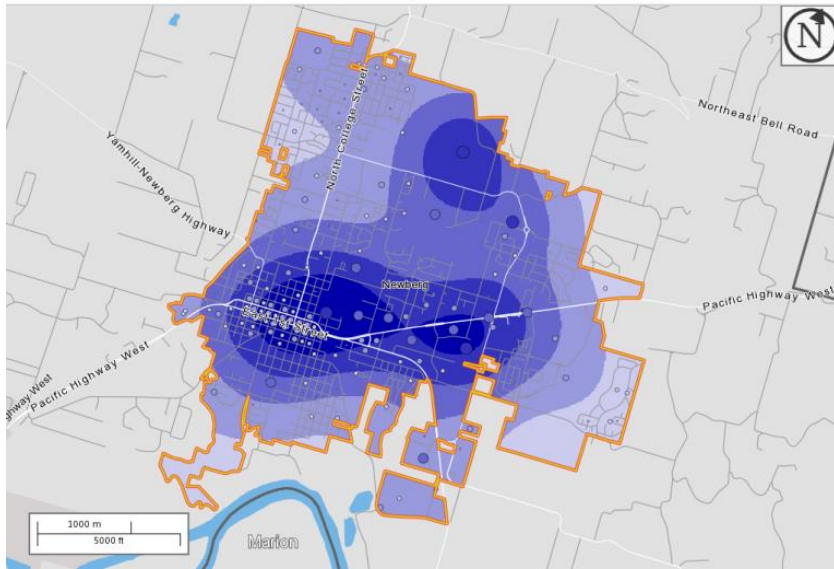
Figure 13 - Employment by Industry, NDIP (2013)



Source: U.S. Census Bureau

The following map outlines the major employment areas in Newberg. Downtown and 99W stretching northeast of town form the major concentration of employment locations. The dark concentration in the northern part of the city is A-dec, the dental equipment company.

Figure 14 - Newberg Employment Concentrations



Source: U.S. Census Bureau

Census data lists downtown Newberg as having around 3,000 full-time workers, although this number is most likely higher than the day-to-day actual numbers of workers in the downtown area. Census figures consolidate jobs by type and location. School district jobs, for example, sometimes appear all at the central location of the school district's primary offices instead of dispersed around at various schools where the actual jobs are. This is the case with the Newberg data, where over 900 of the 3,000 jobs listed in downtown are educational sector jobs. While many of these jobs are most likely located at George Fox University, they do not take place directly within the NDIP boundary.

With the educational jobs removed from the dataset, Newberg can still expect five to 15 percent more jobs in downtown by 2020 and over 15 to 50 percent more jobs by 2030, depending on whether the actual growth rate is closer to historical trends (one percent) or projected trends (3 percent). **In terms of gross new added jobs, this will mean 100 to 300 new jobs by 2020 and 300 to 1,000 jobs by 2030.** Given the setbacks of the recent economic downturn, job growth in downtown is likely to fall at the lower end of this range in the short term. Longer term growth will depend upon the macroeconomic strength of the region, along with downtown focused development policies, infrastructure development (the Newberg-Dundee Bypass being a huge variable), and continuing demographic trends towards higher demand for walkable, urban areas where people can both live and work.

In the current market cycle, construction of new commercial space in downtown Newberg is on the borderline of feasibility. Recent new construction has featured build-to-suit projects or owner-user development, typically on a limited scale. Speculative commercial development is not feasible. There are, however, one-off renovations of historic buildings across the downtown area taking place. These improvements are being driven primarily by the tourism industry, with a particular focus on wine tasting rooms, restaurants, and boutique shops. Renovations, generally, are cheaper than new construction and it is typical in downtowns to see renovations taking place before new construction.

In the short term, Newberg can expect a modest expansion of commercial space and employment in downtown. The vast majority of this expansion will continue to take place in existing improvements, as the development economics make new construction only marginally feasible. The continuing growth of wine tourism to the area and the emergence of more craft industrial or 'maker' businesses will drive much of this short term growth. These developments will increase employment in downtown five, 10, 15 employees at a time.

In the longer term, in addition to tourism focused businesses in the downtown, the service and retail sectors will respond to the addition of downtown infill housing. Larger multifamily developments will

feature ground floor commercial spaces and small multi-tenant commercial centers will become feasible. Hotel development will become more attractive as the tourist industry continues to grow. It is possible that Newberg will see one or two 65 to 70 room hotels develop in the downtown area in the next 15 years. These larger developments will add significant employment numbers to downtown's employment base.

Like infill housing, it is crucial for the city and downtown stakeholders to maintain a focus on encouraging business creation in downtown Newberg through supportive policies and proactive engagement with business and property owners. Downtown Newberg already has a community of successful business owners; helping them achieve their business growth goals and providing them room to expand within the downtown community will reinforce the momentum of this project and help achieve the desired outcomes envisioned by the community.



Craft Industrial (Makers)

Craft industrial or makers refers to the emerging industrial and quasi-retail business type where customers can view, experience, and sample products being made in the maker space. Consumer trends towards experiences, authenticity, and buying local have driven demand for these businesses. Examples include; breweries, creameries, woodshops, wineries, distilleries, metalsmithing, and jewelry making



APPENDIX

D

NEWBERG CORE CATALYST
SITE FEASIBILITY STUDY



NEWBERG DOWNTOWN IMPROVEMENT PLAN



NEWBERG CORE CATALYST SITE FEASIBILITY STUDY

PREPARED BY



LELAND CONSULTING GROUP

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Overview

This Downtown Core Catalyst Site Feasibility Study has been prepared as part of the Newberg Downtown Improvement Plan (NDIP). In early 2015, the City of Newberg, Oregon was awarded a grant by the Oregon Department of Transportation (ODOT) and the Department of Land Conservation and Development (DLCD) to develop a roadmap for improving Newberg's downtown. This project, the NDIP, will focus on land use, transportation, and design solutions to achieve a thriving and livable downtown that meets the community's vision and aspirations. The NDIP is being led by the City of Newberg with support from a project consultant team, a community advisory committee, and general public input. The NDIP is anticipated to be complete in early 2017.

The purpose of the Newberg Downtown Core Catalyst Site Feasibility Study is to show stakeholders and the public how incremental downtown revitalization could occur by testing the feasibility of development on a quarter-block vacant site located in the heart of downtown Newberg at the northwest corner of E. First and Howard Street, commonly known as the Butler Property. Testing the feasibility involved developing several alternative development programs (mixes of uses), preparing architectural studies of each, and financially modeling them to test whether potential development revenues exceed project costs, thereby making the project feasible. Where not feasible, the analysis makes recommendations on strategies to enhance feasibility.

Key Questions

The purpose of this study is to evaluate the feasibility of developing the city owned property known as "the Butler Property" located at the core of downtown Newberg. A few of the key questions that this study addresses are as follows:

- Is it financially feasible to develop the Butler Property in today's market?
- Which of the development programs considered is the most feasible, or the closest to feasibility?
- If the development programs are not feasible what modifications to the building, or changes to the program could make them feasible?
- What other options for development of the site should be considered?

Summary of Findings

This study set out to analyze the feasibility of development on the subject site, “the Butler Property.” The site is primarily constrained by its small size, but also suffers from limited exposure and, at the moment, significant traffic volume and noise.

The feasibility analysis considered three different development programs for the subject site. These programs were identified through analysis of the downtown Newberg market and via direction from the NDIP Project Management Team and Project Advisory Committee. The three development programs are:

- A hotel with limited ground floor retail and internal parking
- Mixed-use office, with two floors of office space above a first floor with retail and parking
- Mixed-use residential, with three floors of rental apartments above a first floor of retail and parking

The analysis showed that none of these options are outright feasible in today’s market, but that a mixed-use residential project is the closest of the three options to feasibility. Should the City decide to pursue this development type, gap financing, a relaxation of parking limits, a denser building design, or a combination of these incentives would be necessary for the project to become feasible.

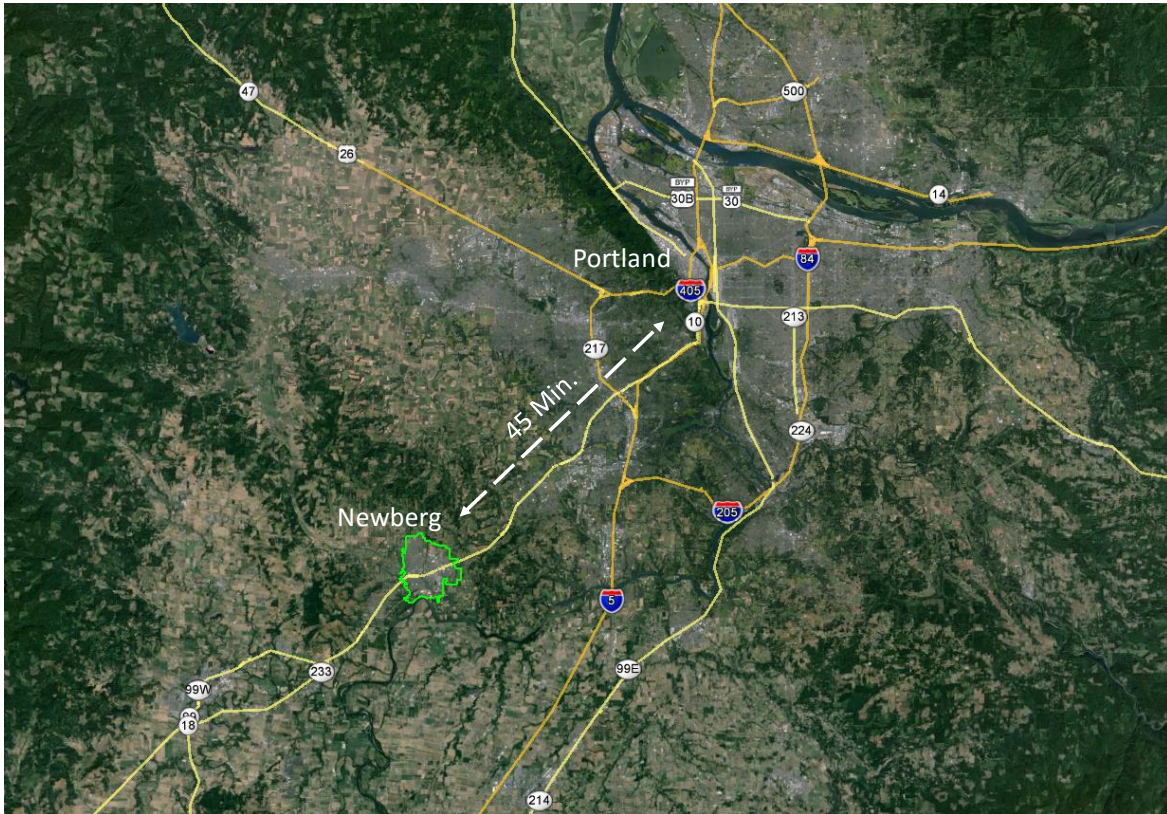
Other options worth considering for the site’s development include a public gathering space with limited retail/restaurant/microbusiness space or a mixed-use student housing development. Each of these options may be more feasible than the three development options analyzed in depth here.

Geographic Context

Area Analysis

The city of Newberg is located approximately 45 minutes by car southwest of Portland, Oregon. Newberg is a city of 22,900 people and is experiencing considerable population growth. The map below illustrates Newberg's location relative to the Portland metropolitan region.

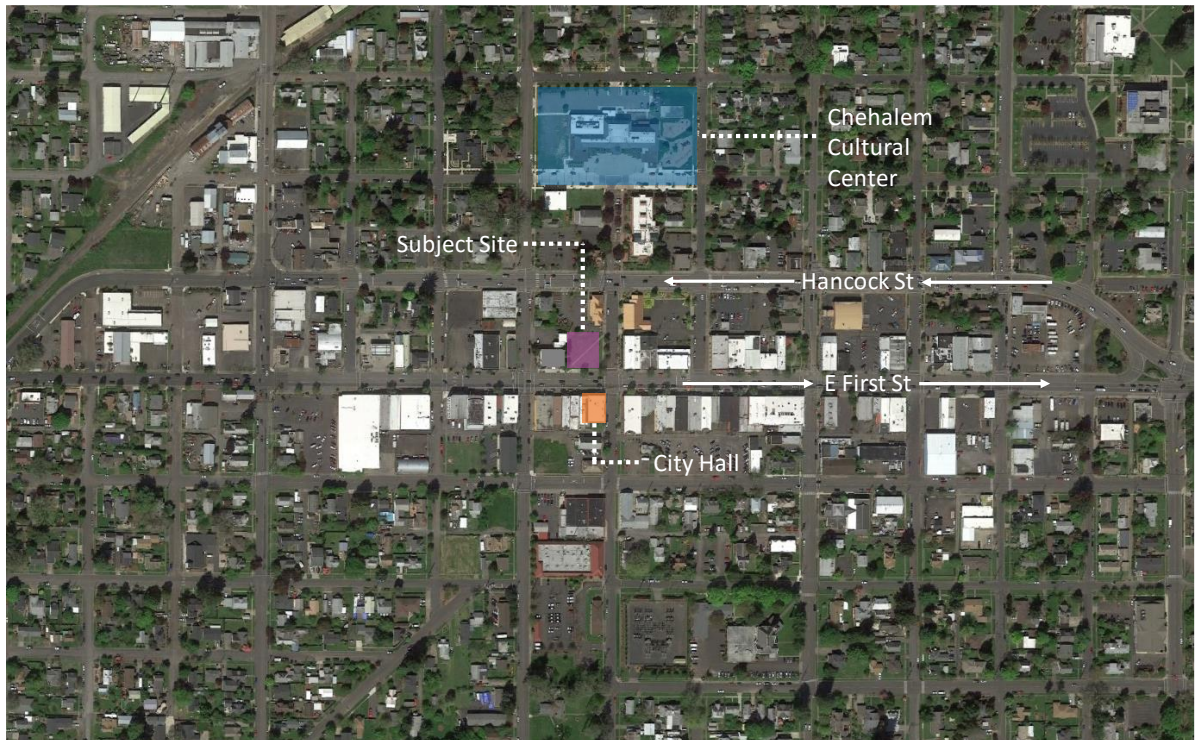
Figure 1 - Location of Newberg, Oregon



Source: Google Earth, Leland Consulting Group

Within Newberg, the subject site is located in the geographic center of the historic downtown area. Downtown Newberg is the civic hub and a major commercial district for the city. The downtown area provides a number of opportunities for future development. The area is more walkable than the strip commercial area of Highway 99W to the east and retains a classic grid street layout. In recent decades, traffic volumes, noise, and pollution have taken away from the natural attractiveness of the city center's classic early 20th century form. With the opportunity to route more traffic, and specifically truck traffic, on the upcoming Newberg-Dundee Bypass, downtown will become more attractive for investment.

Figure 2 - Location of the Butler Site in Downtown Newberg



Source: Google Earth, Leland Consulting Group

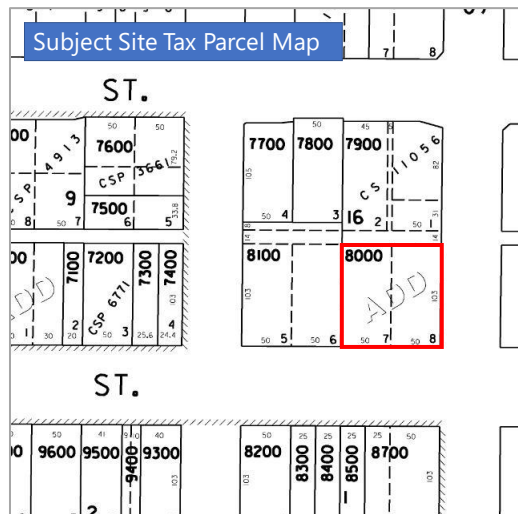
The subject site sits at the pivot point within the downtown area. Directly south, across East First Street, is City Hall, and a couple of blocks north is the Chehalem Cultural Center. The site is located in the one-way street couplet system of Hancock Street (west bound traffic) and East First Street (east bound traffic). These streets are also a major state highway, Oregon Highway 99W, with traffic volumes in excess of 16,000 vehicles per day in either direction and over 35,000 vehicles per day if both directions are counted together¹.

Site Analysis

The subject site is a 10,300 square foot vacant lot with no improvements present. The site is level and at street grade and measures 100' by 103.' The City of Newberg is the current owner of the site.

¹ Oregon Department of Transportation 2014 Traffic Volumes Tables, http://www.oregon.gov/ODOT/TD/TDATA/Pages/tsm/tvt.aspx#Transportation_Volumes, Page 92.

Figure 3 - Tax Parcel Map of the Butler Site



Source: Yamhill County Assessor

There is a vacated public alley located along the northern edge of the site. It appears that the bank property immediately to the north of the subject site occupies this space and uses it for a drive aisle for its parking lot.

Location, access, and exposure

The subject sits on East First Street at the intersection of Howard Street. As previously mentioned, the daily traffic volumes along East First Street are significant, with over 16,000 vehicle passing the property each day. Howard Street appears to see significantly less daily traffic, and there is no visibility of the site from Hancock Street.

There is on-street parking adjacent to the site along both East First Street and Howard Street. The city block to the southeast has a City owned public parking lot with 88 spaces that can be easily accessed from East Second Street (see Figure 4. below).

Figure 4 - Close Up Aerial View of the Butler Property



Source: Google Earth, Leland Consulting Group

Figure 5 - Aerial View of the Butler Property from City Hall

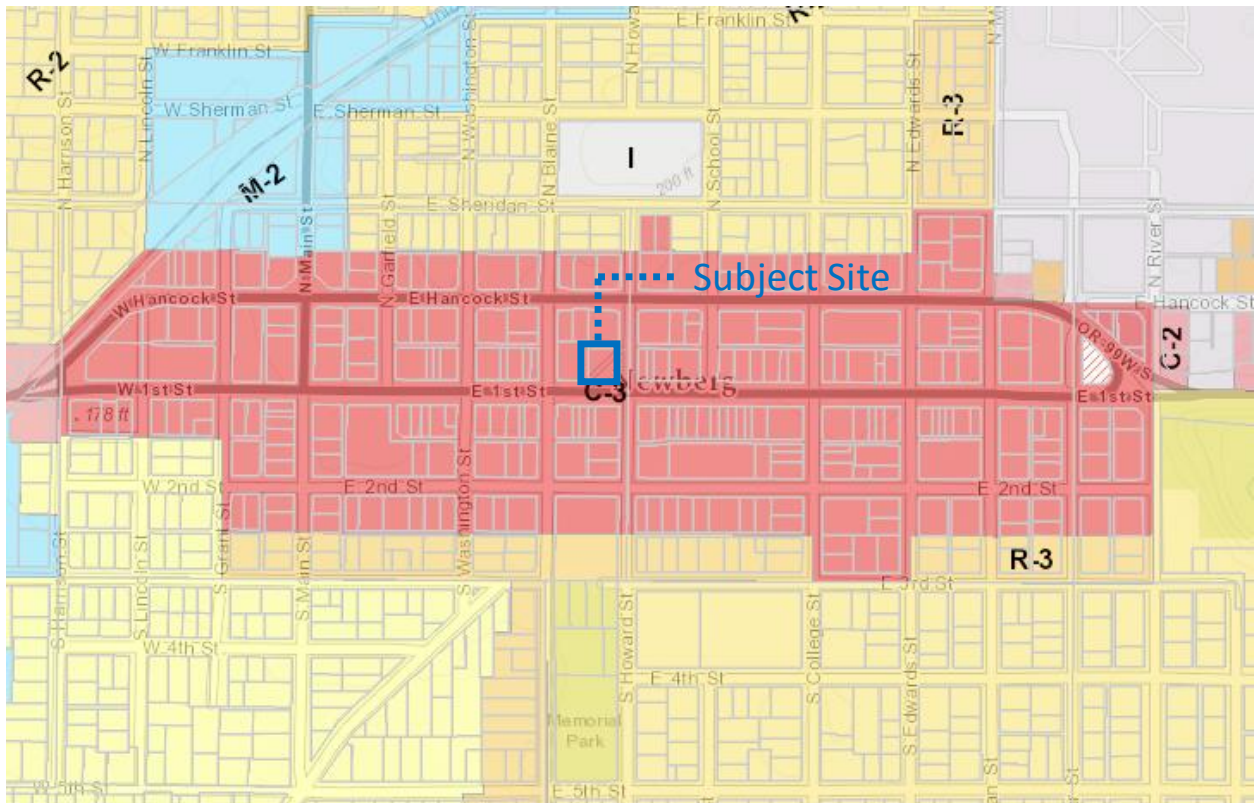


Source: Leland Consulting Group

Land Use and Zoning

The subject is zoned C-3 – Central Business, a mixed use zone designation that allows for a variety of commercial and residential uses with an emphasis on creating a dense and urban development form. Zoning standards are quite lenient in the C-3 zone, with no setbacks, height limits, floor area ratio (FAR) limits, low parking requirements, and a wide range of allowed uses.

Figure 6 - Downtown Newberg Zoning Map



Source: City of Newberg, Leland Consulting Group

Area and Site Analysis Summary

The subject site is located in the historic district of downtown Newberg. Generally, development prospects in the immediate area are on the rise, as Newberg's population continues to grow. The site itself is development ready and is located in a pivotal location in the downtown core. Traffic volume is significant, although the property's only visible from traffic traveling east on First Street or North/South on Howard Street. There is no site exposure to Hancock Street. Zoning is flexible with few setbacks or other building envelope restrictions. The site primarily suffers from its small size. At 10,300 square feet most development programs are going to be constrained and inefficient.

Demographic and Market Analysis Summary

An earlier report in this project, the Newberg Market Conditions Report, provided a detailed analysis of Newberg demographics, current market conditions, and market trends. Provided here is a summary of those findings.

Newberg Demographic and Economic Summary

Newberg, Oregon is a city of approximately 23,000 people located 26 miles southwest of Portland, Oregon. Newberg was settled in the mid-19th century and later platted and incorporated as a city in 1889. Today Newberg is known as the gateway to Yamhill County's many wineries and one of the focal points of the Willamette Valley's wine country. Newberg is well positioned between the growing Portland metropolitan area to the northeast and the agricultural economy of the surrounding Willamette Valley. Below is a snapshot of Newberg's demographic profile.

- Newberg outpaced the state's growth rate during the decade of 2000 to 2010 and is currently continuing to grow at a faster rate than the rest of Oregon. **Between 2015 and 2020 Newberg is forecasted to grow by an average 1.89 percent per year².**
- The average household size is **2.64 people, compared to Oregon's average of 2.45.**
- Nearly a quarter of Newberg's households (23 percent) are single-person households and 33 percent are two people. **Together, one and two-person households make up 56 percent of the total population.** Seventeen percent of Newberg households are three people and 15 percent are four people.
- **Newberg's household median income is \$58,602**, which is slightly higher than both the Oregon and U.S. household median incomes.
- As of 2010, about **59 percent of Newberg housing units are owner-occupied** and 35 percent are rented.
- Approximately 28 percent of Newberg's population is a high school graduate or has a GED; 25 percent have had some college, but no degree; **over 20 percent have a bachelor's degree; and 9.3 percent have a graduate degree.** These percentages are in-line with the State of Oregon numbers.
- While Newberg's population is fairly homogeneous at 85 percent white, **over 14 percent of the population identifies as Hispanic.**

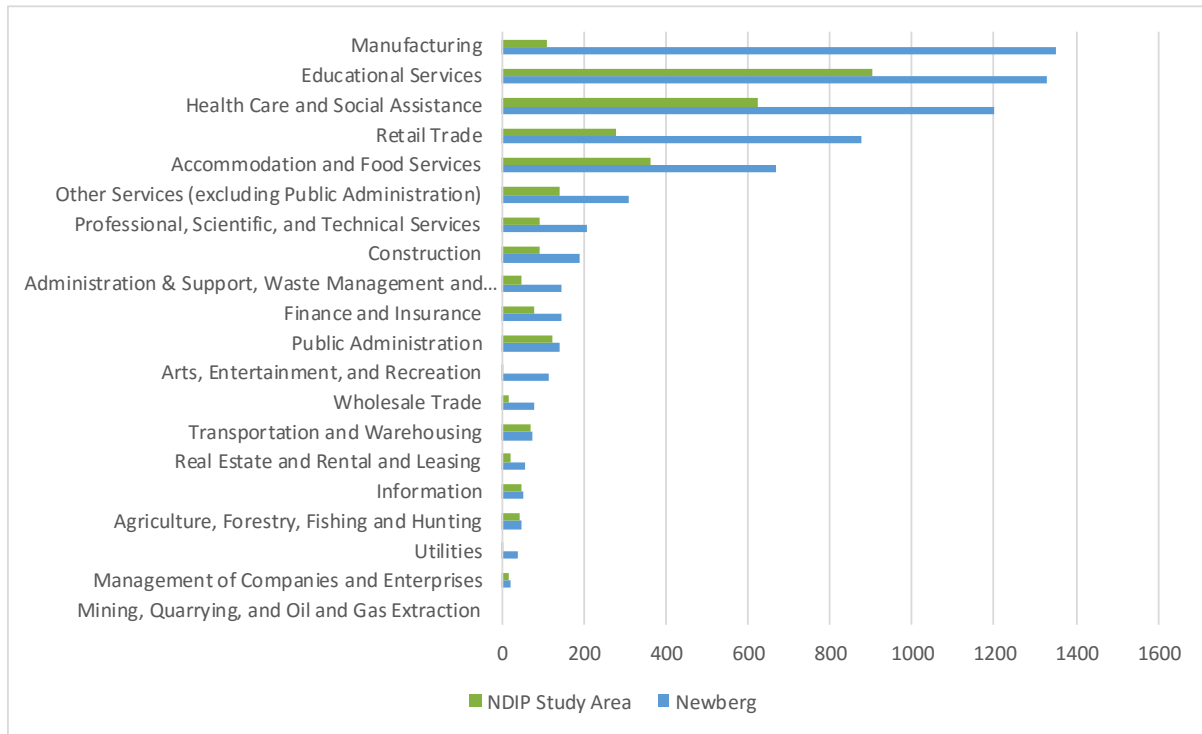
Newberg is the second largest city in Yamhill County after McMinnville, and together the two cities comprise over half of Yamhill County's population. Yamhill County has seen a steadily declining unemployment rate since the end of the recent recession. The seasonally adjusted unemployment rate was 6.6 percent in 2014, down from 7.6 percent in 2013. The month by month unemployment rate for 2015 has continued to show promising declines. It's worth noting that 7.6 percent down to 6.6 percent is a considerable drop and reflects the county's steady climb out of the recent recession.

Newberg has over 7,000 full-time workers, with a few large employers that form the base of its economy. At the top of the list is notable dental equipment firm A-dec with over 800 employees. Providence Newberg Medical Center, George Fox University, Portland Community College, and the Allison Inn & Spa resort are other significant employers. With five elementary schools, two middle schools, and a four-year high school, Newberg School District also contributes significantly to employment in the area.

² City of Newberg, best estimate from recent growth

Figure 7 below illustrates the breakout of employment by industry within the entire city of Newberg as compared to the employment within the NDIP study area geography.

Figure 7 - Employment by Industry, NDIP and Newberg (2013)



Source: U.S. Census Bureau

Newberg Real Estate Markets

Residential

Single-family home prices in Newberg have yet to rebound to pre-recession levels and single-family housing permits in Newberg have declined dramatically since the recent recession. Fewer than 50 permits have been issued annually since 2009. While illustrative of the overall housing economy, single-family housing is not likely to be a significant use in the NDIP study area, and although condominiums are an appropriate use for downtowns, market fundamentals (pricing, lending criteria) are greatly favoring apartments over condominiums in all but the most expensive urban housing markets like downtown Seattle or Portland. Over the long term, however, these conditions might change and the market could favor condominiums over apartments.

Nationally, apartment demand and occupancy remains strong and demographics clearly favor the apartment sector over ownership housing. Declining homeownership is increasing the demand for apartments generally, and financing for home ownership has become much more difficult, which is exacerbating the shift to apartments, particularly among newly formed millennial households. Additionally, weak employment growth has resulted in more part-time jobs and weak income growth, which has created more renters. Apartment growth is most apparent in larger cities, near city centers, neighborhood centers, and along frequent transit lines.

The Newberg rental apartment market is of modest size and, despite relatively low rents, there is exceptionally tight vacancy. According to CoStar Property Analytics, there are 59 multifamily properties in the city of Newberg with an average size of 36 units. Few market-rate units have been added to the

market in the past decade. Multifamily rents are stable but generally lower than necessary to allow new construction to be feasible. Rents range between \$0.96 per square foot per month for average properties to \$1.20 to \$1.28 per square foot per month for newer construction. The newest apartment complex in Newberg, Springbrook Ridge which is completing construction in 2016, has asking rents of \$1.18 to \$1.25 per square foot per month.

Typical to the Newberg multifamily market are two to 10-unit complexes built in the 1970s and 80s. CoStar reports that the multifamily vacancy rate has fluctuated between less than two percent to almost four percent in the past five years. The current multifamily vacancy rate stands at an incredibly low 2.4 percent.

Retail

CoStar reports that Newberg has 191 retail buildings totaling 1.32 million square feet of retail space. The market has a low vacancy rate of 3.8 percent. Rents vary widely by retail property type, condition, and configuration. New retail pads along 99W east of the downtown area are asking between \$13 per square foot per year on a NNN (triple net) basis³ to the high \$20s. A few asking rents for new, first generation space are even in the low \$30s NNN.

Downtown Newberg consists of 102 retail buildings that account for 30 percent of the citywide retail stock by square footage. Rents in the downtown area are a magnitude lower than the strip retail on 99W. Average asking rates are between \$9 per square foot per year to \$12 per square foot per year on a triple net equivalent basis.

Office

Newberg has 87 office buildings with a total of 429,969 square feet of rentable space. Typical to the Newberg office market are wood-framed Class B and C office buildings built between 1960 and 1990. Office vacancy stands at 7.5 percent according to CoStar; this is down from a high of almost 14 percent at the peak of the recession in 2009. Gross office rents⁴ currently average around \$16.60 per square foot per year. Examining current listings, there are a number of available spaces in buildings constructed in the past decade along the 99W corridor northeast of downtown. These availabilities have asking gross rents that range from \$14 to \$24 square foot per year.

The office market in downtown differs from the citywide office market in a number of ways. The 27 office properties in downtown Newberg are, on average, smaller and older than offices citywide, with an average size of 3,021 square feet and average year built of 1958. Office vacancy downtown appears to be almost nonexistent, and in a related fashion, rents have been climbing in recent years. Although limited data is available, CoStar reports a current direct gross rent of \$20.52 per square foot per year for the NDIP area. This number has jumped considerably from 2008 to 2012, when office rents were averaging around \$13 per square foot per year.

³ Triple net leases or NNN leases are commercial real estate leases where the tenant is responsible for all of the property's expenses, with the exception of structural maintenance and tenant management fees. NNN leases are typical for retail and industrial properties.

⁴ Gross rent structures are rents in which the landlord pays for most of the property's expenses. For this reason, gross rents are typically higher than triple net rents. Full service gross rents refer to when a landlord is paying all of a property's expenses, whereas "modified gross" refers to when the tenant and landlord share expenses.

Feasibility Analysis

This feasibility analysis considers three different development programs for the subject site. These programs were identified through analysis of the downtown Newberg market and via direction from the NDIP Project Management Team and Project Advisory Committee. The three programs are;

- A hotel with limited ground floor retail and internal parking
- Mixed-use office, with two floors of office space above a first floor with retail and parking
- Mixed-use residential, with three floors of rental apartments above a first floor of retail and parking

Leland Consulting Group created financial models, often times referred to as 'pro formas,' using local market assumptions to explore the financial feasibility of these three programs. The type of pro forma used in this analysis is a residual land value model. These models use costs, rents, and other assumptions from the local market as inputs, and then the model outputs the maximum land value that the developer could afford in order to reach target financial returns. The residual land value output should, at the very least, be a positive number. For complete feasibility, the residual land value output should be at or above the market value for the subject's land.

Key assumptions are critical to the accuracy of a financial model. A few of the general key assumptions are listed below:

- On-site parking is a feature in each of the three development program options. The C-3 Zone in which the subject site sits does not require parking for uses other than residential. For residential uses, a ratio of 1 parking space per unit is the requirement. Each option includes as much on-site parking as believed to be physically possible given site and design constraints. The number of parking spaces in each option does not always meet the zoning code requirement. Furthermore, it is assumed that there would be a monthly charge to residents for use of a parking space. This 'uncoupling' of parking from specific residential units is common in urban areas.
- Construction costs are an important component to any feasibility model. In this case we have used between \$130 to \$160 per square foot for total construction cost (hard and soft costs). This assumes primarily wood construction over a concrete podium. Estimating construction costs is always a moving target, and in the current market cycle costs are rising due to market demand for labor and materials. Should one of these development options be pursued, costs at the time of construction could be significantly different than the numbers modeled here.
- Capitalization rates are the ratio between a development's net income stream and its total market value. These rates indicate a level of risk or stability in the potential future income of the property. Typically, higher capitalization rates indicate higher risk and lower capitalization rates indicate more stability. Capitalization rate selection for these development options was determined through analysis of regional rate trends and a consideration of Newberg's relative position to the Portland market.
- Each development option contains ground floor retail space. This is a requirement of the C-3 zone and would add additional income to the development's cash flow. As discussed in the previous section, retail rents in the downtown area are modest, with the upper end of rents hovering around \$12 per square foot⁵ on a triple net basis. The financial models here consider a retail rent of \$18 per square foot on a triple net lease structure. This is a magnitude higher than current retail rents in downtown, however this retail space would arguably be the best new space in downtown Newberg.

The following pages consider, in detail, each of the three development options for the site.

⁵ \$12 per square foot *per year*

Hotel Analysis

This option considered building a mixed-use building on the subject site. The building would have parking, retail, and a lobby on the first floor. Hotel units would make up the upper floors. The sketch on the right illustrates a potential massing for the hotel building. The financial model considers a building of four stories.

Building a hotel on the subject site would be a great challenge and would likely not be economically feasible. This is primarily due to the following issues:

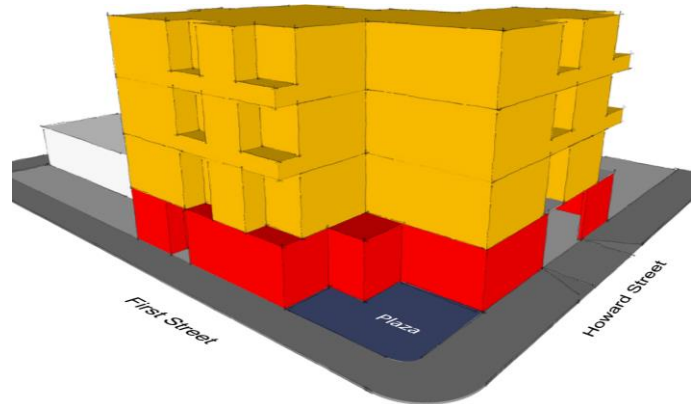
- Average Daily Rate (ADRs – the average daily rate per room per night after factoring in vacancies) that are potentially achievable are too low to warrant construction costs.
- Projected Net Operating Income (NOI) is insufficient to cover operating costs, debt, and return targets.
- Even if the land was contributed to the project at no cost to the developer, this option would require significant subsidy.
- The site size does not enable a sufficient number of parking spaces for a hotel to operate efficiently. With only 20 parking spaces the development would have fewer than 0.50 spaces per hotel room. This low ratio is well outside of current hotel market standards.
- The number of rooms (39) is likely too few to attract a hotel brand and potential local owners would have trouble qualifying for financing without a major brand.

Hotel Model Assumptions	
Building Size	26,420 Gross SF
Rentable Spaces	39 Hotel Rooms 705 Retail Rentable SF
Rents	\$120 Hotel Average Daily Rate (Year 1)
Parking Spaces	19 Ground Floor Internal Parking Spaces

Figure 8 - Urban Hotel Example



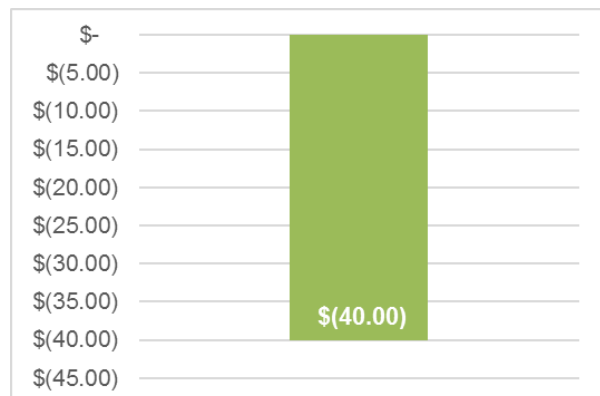
Figure 9 - Hotel Massing Model



Source: Greenworks

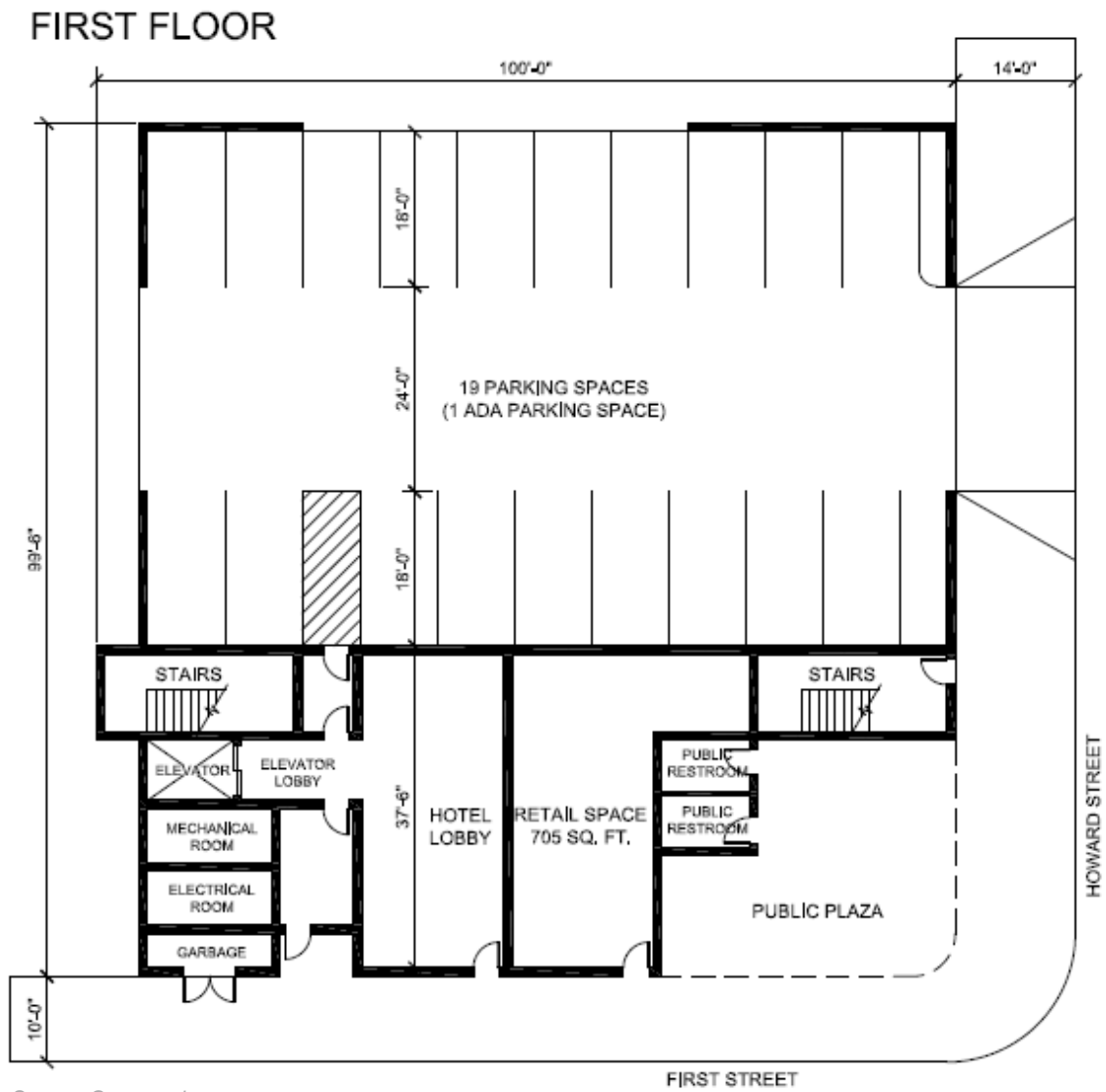


Figure 10 - Hotel Option Residual Land Value Per SF



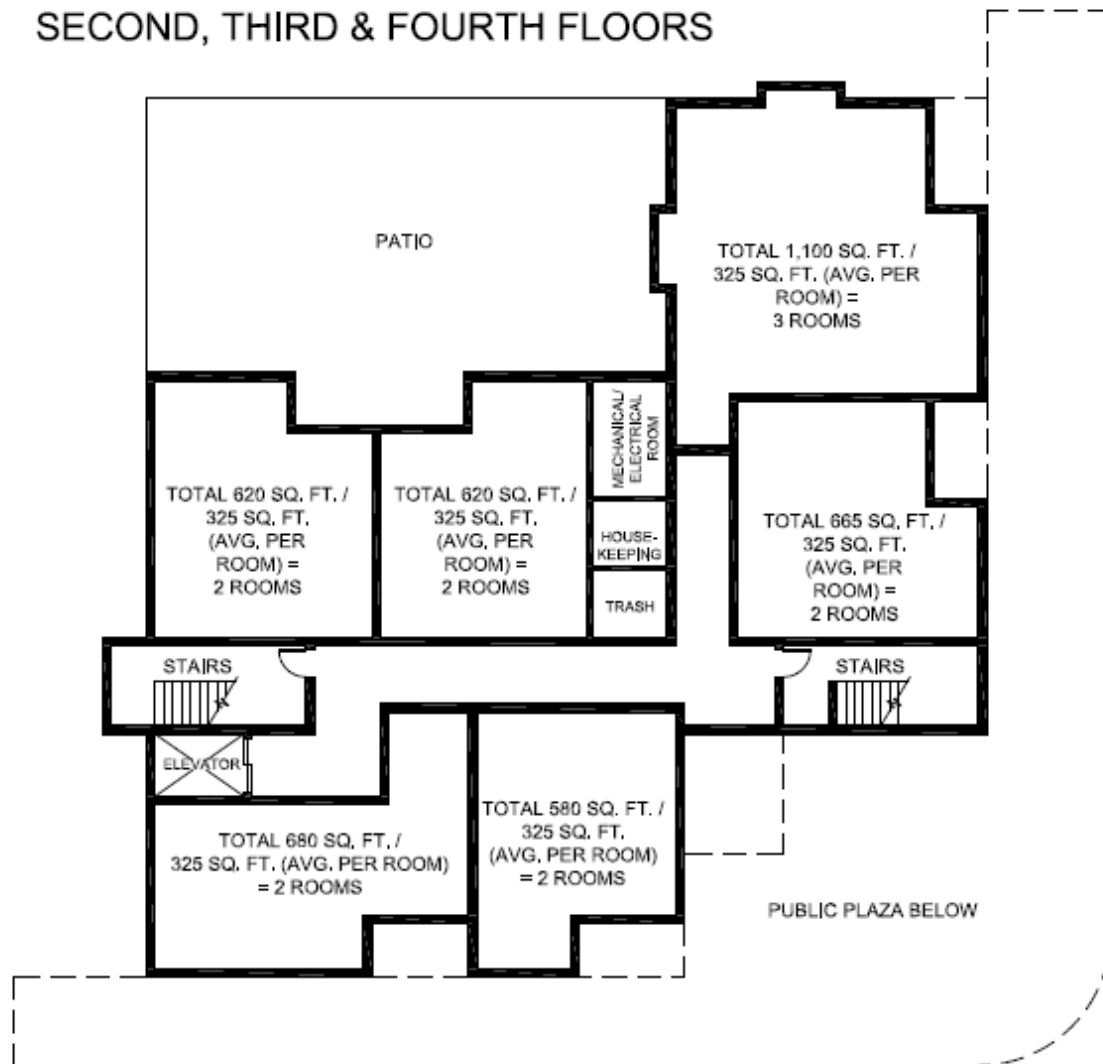
Source: Leland Consulting Group

Figure 11 - Hotel Option, First Floor



Source: Greenworks

Figure 12 - Hotel Option, Second, Third, and Fourth Floors



Source: Greenworks

Office Mixed Use Analysis

This development option considered the construction of a three-story mixed use building with two floors of office over a first floor of parking and retail space. As described in the market analysis section, the downtown office market in Newberg is locally focused and does not currently have demand for speculative office space. It is for this reason that only two floors, a total of 14,000 rentable square feet, of office space was considered. Furthermore, because of this lack of demand for office space in downtown, it is assumed that an office user (or users) would be secured prior to construction in order for this option to be financed.

That being said, in order for this option to be financially feasible, a prospective office user would have to lease the office space for a rent almost 50% above current market rates⁶. It would be very challenging to find an office user willing to pay such high rates unless it were an owner-user. Therefore, this option is considered not feasible.

Feasibility issues include:

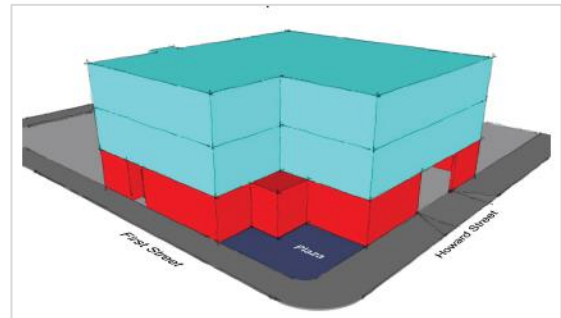
- Weak office market demand
- Low office market rents

Office Model Assumptions	
Building Size	25,373 Gross SF
Rentable Spaces	14,000 SF Office Space 1,350 Retail Rentable SF
Rents	\$23 per SF Modified Gross Office Rent \$18 per SF NNN Retail Rent
Parking Spaces	19 Ground Floor Internal Parking Spaces

Figure 13 - Downtown Office Example



Figure 14 - Office Mixed Use Massing Model



Source: Greenworks

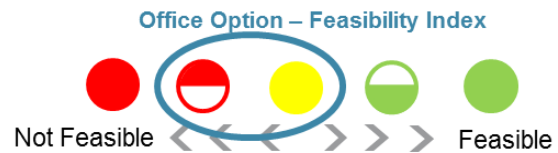
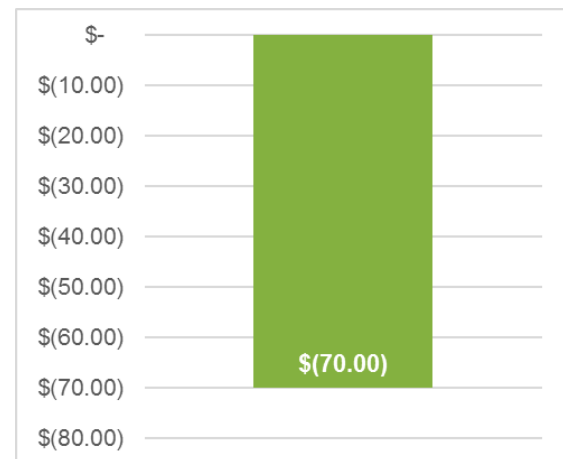


Figure 15 - Office Option Residual Land Value Per SF

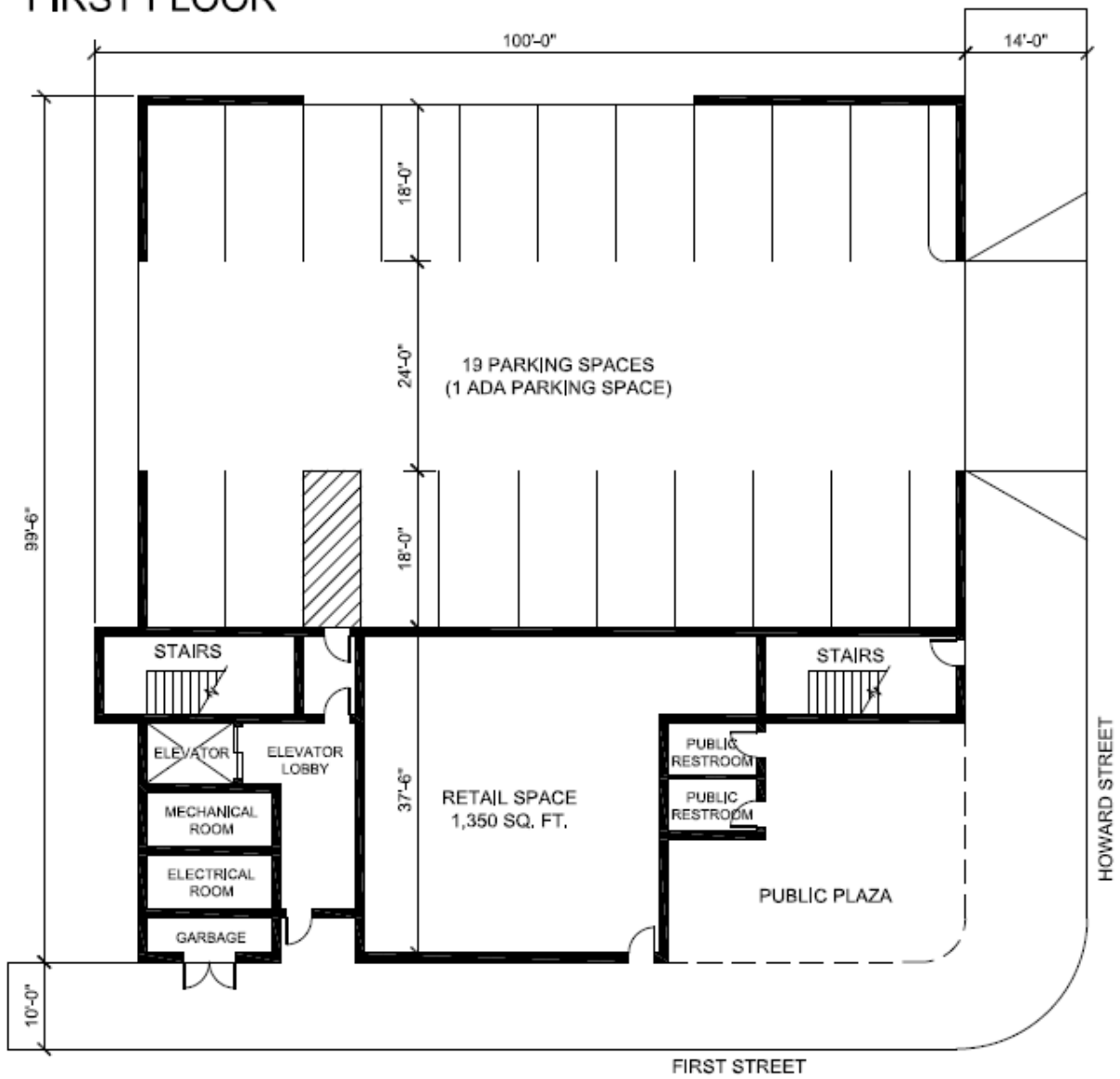


Source: Leland Consulting Group

⁶ Assumes a market rate of \$21 per SF, NNN. The pro forma is feasible at a rent of approximately \$30 per SF, NNN.

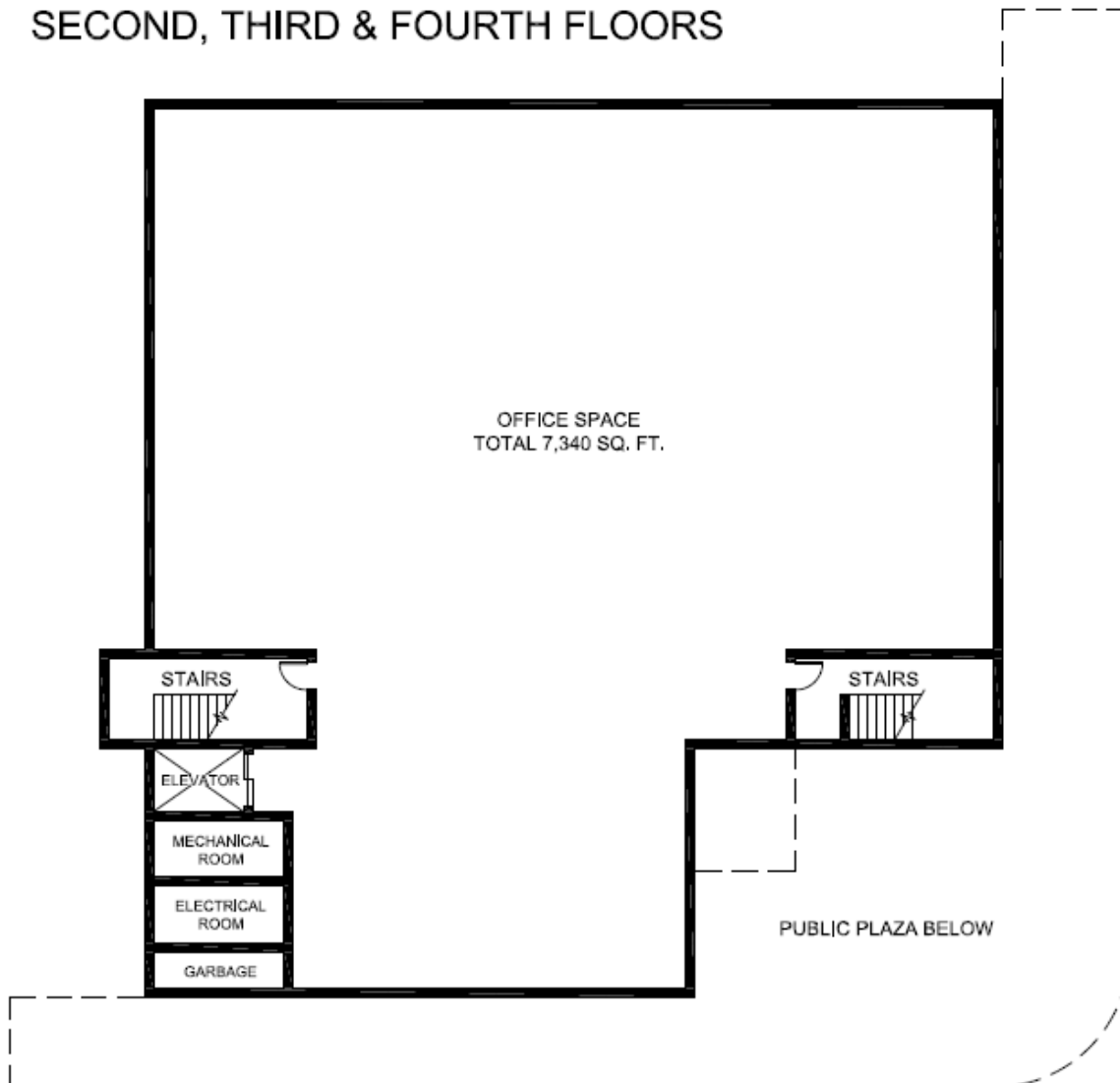
Figure 16 - Office Option, First Floor

FIRST FLOOR



Source: Greenworks

Figure 17 - Office Option - Second and Third Floors⁷



Source: Greenworks

⁷ The floor plate shows more than 7,000 SF rentable office space. Given the depth and width of the space it's assumed that an atrium and skylight would be necessary in the center of this space and would be deducted from the Rentable Building Area (RBA). Without a skylight, the center of the floorplate would be unreasonably dark.

Residential Mixed Use Option

The residential mixed-use option is the most intriguing of the three options analyzed in this study. Newberg's housing demand is strong and is expected to remain steady for the foreseeable future. Average residential rents, however, continue to be lower than is typically necessary to warrant new construction.

This option considered a four-story building with three floors of rental apartments over a ground floor of parking and retail space. Two residential mixed-use options were considered. One option features a small corner plaza at the intersection of East First Street and Howard Street. The plaza feature is intended to create a small gathering space for retail patrons to the building. The plaza does, however, eliminate space above for rental units that would otherwise be located in that corner of the building. Removal of these units affects the building's cash flow noticeably. The second option removes the plaza and replaces both the residential units above and adds retail space on the first floor where the plaza would otherwise be located.

While this option for development is not an immediately obvious profit maker, it appears closer to feasibility than the other two options and is worth deeper consideration.

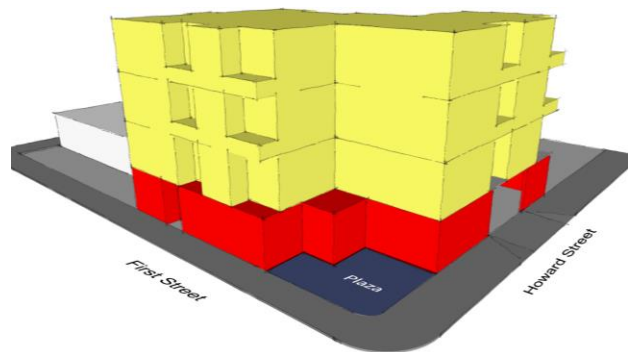
The key to financial feasibility in this scenario is for the apartment rents to be high enough so as to support the building's construction. As previously discussed, apartment rents in Newberg hover around \$1 per square foot per month⁸, and the top of the market is around \$1.25 per square foot per month. In order for this form of construction to be generally feasible, rents need to be at least \$1.50 per square foot per month. Gross monthly rents, as opposed to rents on a per square foot basis, are also worth considering, because this is how consumers typically think about their housing budget. Gross monthly rents in Newberg are typically between \$800 to \$1,100 a month and top out at \$1,400 for apartments. Due to these market realities, this analysis assumes a rent of \$1.75 per square foot per month (approximately \$1,200 to \$1,300 per unit per month) to be the highest possible rent achievable and is used in the pro forma analysis.

At a first pass, feasibility is not easily achievable. A rent of \$1.75 per square foot per month does not yield enough cash flow to support construction. The first option, with the plaza and fewer apartments, has a negative residual land value similar to the office option. The second residential option, without the plaza and more rental apartments, is, out of all the options, the development program closest to feasibility. This option still yields a negative residual land value, but fine tweaking of the development program and modest gap financing could get this option to be feasible. Furthermore, as Newberg's population continues to grow and housing demand increases rents will incrementally increase; this development option may not work in today's market, but could at some point in the near future.

Figure 18 - Residential Mixed Use Full Buildout Sketch



Figure 19 - Residential Option Massing Model



⁸ \$1 per square foot *per month*

Residential Option 1 Assumptions (with Corner Plaza)	
Building Size	24,194 Gross SF
Rentable Spaces	18 Apartment Units 1,350 Retail Rentable SF
Rents	\$1.75 per SF per Month Modified Gross Residential Rent \$18 per SF NNN Retail Rent
Number of Parking Spaces	19 Ground Floor Internal Parking Spaces

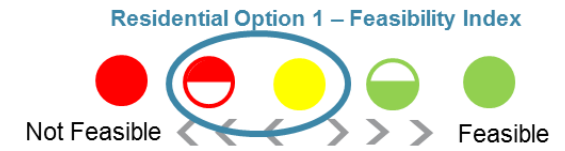
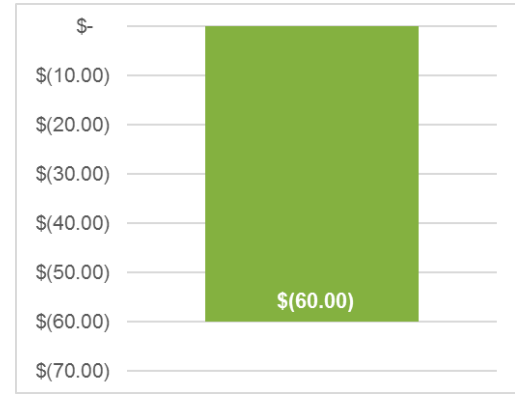


Figure 20 - Residential Option 1 - Residual Land Value Per SF



Residential Option 2 Assumptions (without Corner Plaza)	
Building Size	26,420 Gross SF
Rentable Spaces	21 Apartment Units 2,400 Retail Rentable SF
Rents	\$1.75 per SF per Month Modified Gross Residential Rent \$18 per SF NNN Retail Rent
Number of Parking Spaces	19 Ground Floor Internal Parking Spaces

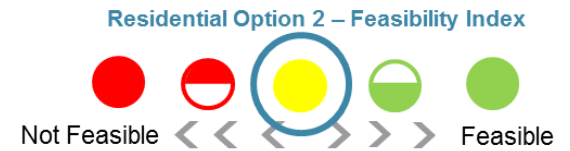


Figure 21 - Residential Option 2 - Residual Land Value Per SF

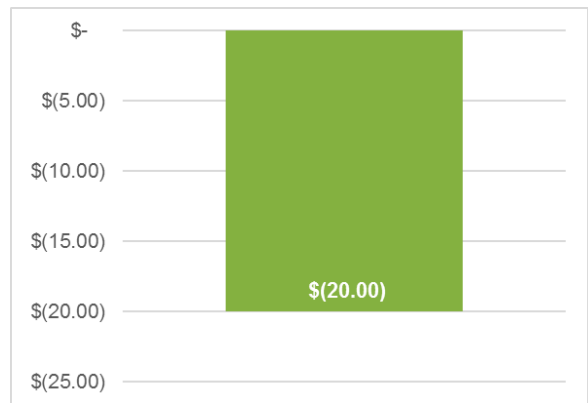
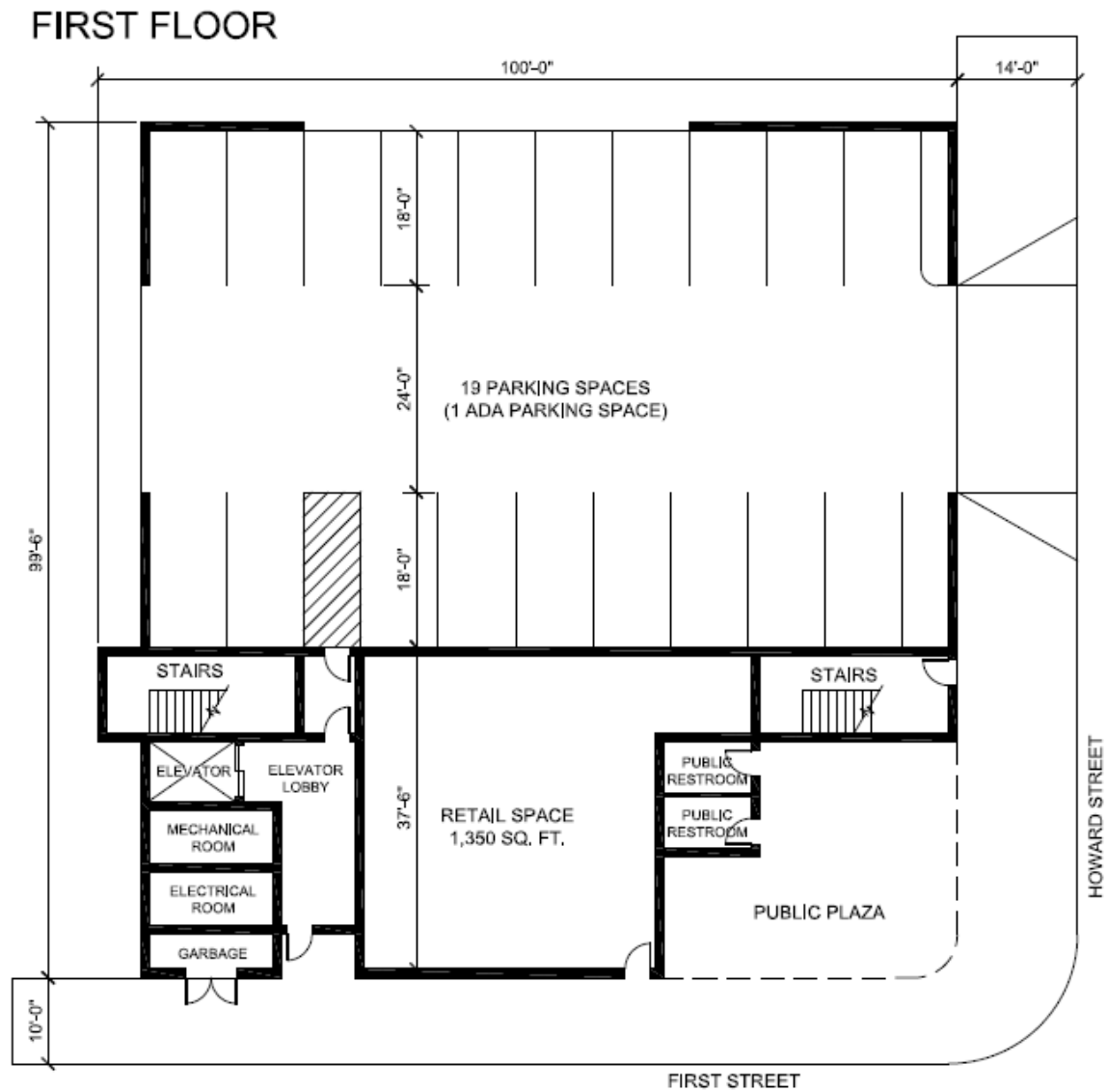
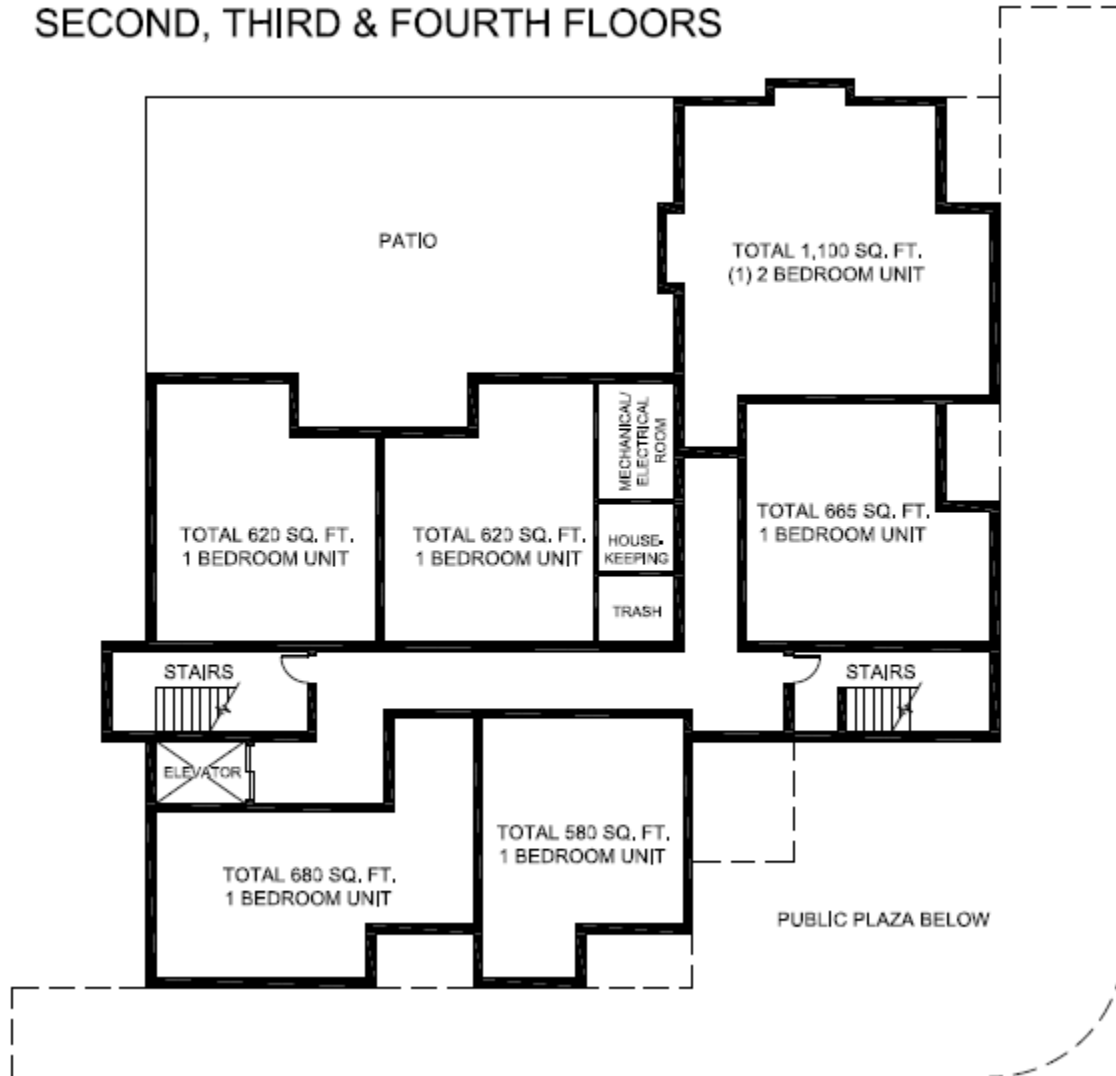


Figure 22 - Residential Option 1, First Floor



Source: Greenworks

Figure 23 - Residential Option 1 - Second, Third, and Fourth Floors⁹



Source: Greenworks

⁹ Residential Option 2 has similar floorplates to Option 1, but with retail replacing the plaza and residential units replacing the area above the plaza

Making a Residential Mixed Use Project Work

In this residential mixed use analysis, the financial models have shown that this building type is not outright feasible, although this development program is the closest to feasibility of the three option types analyzed. If Newberg rents were around \$1.90 to \$2.00 per square foot, the second residential model would be financially feasible. Given how close to feasibility this residential mixed use option is, it's worth considering ways of making this option pencil out. The following ideas could turn this development option from not feasible to feasible:

- Gap financing – While these residential options are not outright feasible they are close to feasibility. A public/private partnership whereby the city invests in the development could enable a private development to be feasible. Gap financing can take many forms, including for example land value reduction, Vertical Housing Tax Credits, tax abatement programs, impact fee deferrals or waivers, grants, loans, or other public financing tools.
- Relaxation of parking standards – Requiring parking on the site comes at a great cost. Reducing or eliminating parking requirements could make the residential development option feasible. In practice, however, this idea may be more of a challenge to marketability than a zoning concern. Downtown Newberg may not be transit rich enough to support apartments without parking.
- Addition of extra units – As was seen in the difference between the two residential options considered, the addition of extra rental units can change a development's cash flow considerably. A reconfiguration of the building to allow for more units could tip the scales towards feasibility. Eliminating onsite parking could also help make a more efficient floorplate and allow for more units.

Feasibility Summary

This case study set out to analyze the feasibility of development on the subject site, 'the Butler Site.' The site is primarily constrained by its small size, but also suffers from limited exposure, and, at the current time, significant traffic noise.

The feasibility analysis considered three different development programs for the subject site. These programs were identified through analysis of the downtown Newberg market and via direction from the NDIP Project Management Team and Project Advisory Council. The three development programs are;

- A hotel with limited ground floor retail and internal parking
- Mixed-use office, with two floors of office space above a first floor with retail and parking
- Mixed-use residential, with three floors of rental apartments above a first floor of retail and parking

The analysis showed that none of these options are outright feasible in today's market, but that a mixed-use residential project is the closest of the three options to feasibility. Should the City decide to pursue this development type, gap financing, a relaxation of parking limits, a denser building design, or a combination of these incentives would be necessary for the project to become feasible.

Recommendations

Other Options to Consider

This case study illustrates the difficulty in today's market to develop the Butler Property with an intensive development program. Despite the infeasibility of the development options analyzed here, there are other development options for the City to consider.

The idea of a catalyst site is to initiate the momentum of private investment in an area. If one of the options presented here were to be constructed, the argument goes, then other private investment would follow. It appears, however, that site and market constraints pose major challenges for development on the subject site. There are other options that the City can consider on the site that could lead to increased activity in the downtown core. For consideration:

- Creative Co-Working and Micro-Business Space – The site's location lends itself to a gathering spot in the downtown area. A public square or plaza on the site, supported by limited co-working and micro-business space could activate this important corner in the center of downtown. This option would be focused on creating a 'there there,' that would be an activity generator for downtown. If carefully programmed, marketed, and managed, this public gathering spot could become an elemental place making building block for the area, creating a "wow factor" for downtown and lead to further interest in downtown development.
- Student housing – As seen in the analysis, developing market-rate housing on the site would be a challenge. It should be noted that George Fox University is currently examining its need for student housing, as opportunities on campus are being outstripped by demand. Student housing may be able to circumvent some of the challenges that typical housing would face. Rents for student housing typically are high on a per-square-foot basis, as student housing is typically leased on a per-bed basis. Parking may not be as much of an issue for full-time students that may not have a car or may even prefer to not have a car. And traffic noise may be less of a concern for students than market-rate housing consumers. Furthermore, students living downtown would lead to additional business opportunities and activity in the downtown area.



Recommendation

The following options appear to be the best paths forward for consideration at this time. We recommend that the city pursue one of the following options for the Butler Site.

- Market Rate Housing – If it's the goal of the City pursue one of the mixed use options analyzed through this study, then a residential mixed-use property is the option most likely to succeed. As the analysis showed however, a mixed use residential project will require significant gap financing in order to pass the feasibility test.
- Activity Generator with a Focus on Place Making – As outlined above, the City could underbuild the site with limited retail/restaurant/micro-business spaces and a plaza or other type of open-air gathering space. By limiting construction to one or two stories, focusing on small, easier leasable spaces, and creating an attractive and central location for gatherings and special events, the City could create an

active node at the heart of the downtown. This attractive urban “living room” could build momentum and interest in downtown Newberg, leading to further private investment and perhaps even incubating future Newberg businesses.

- Student Housing – Student housing at the site would bring more residents to the center of downtown, leading to more foot traffic passing by area businesses and adding to downtown’s activity level. George Fox University is growing its student population and is an engaged partner in the Newberg downtown community. A public/private partnership between the City and the University could be a success for both parties, along with other downtown stakeholders.
- Provide Off-Site Parking – As the analysis showed, providing any amount of on-site parking greatly constrains what can be done on the site, as it shrinks the buildable area of an already-small site. If the City were able to provide all required or needed parking on a nearby site, each development option may be able to be designed more efficiently so that feasibility is improved. Studying this option may be worthwhile. In either case, providing parking can be a valuable way to meet the gap financing needs of any scenario.

It is recommended that the City take an additional step to explore these options in depth. This additional analysis could test feasibility of these options, as this study has done with the previous options, and also seek out community and development partners that could make a project a success on the site.

Reality Check Meeting Input

In order to “check the reality” of the Butler Property Analysis and also to gain input and advice on the other concepts that are being put forth in the project, the consultant team and the City of Newberg held a “Reality Check Meeting,” with representatives from the development and financing community. A full summary of that discussion can be found in a companion piece to this report. Summarized below is the input regarding the Butler Property Analysis:

- The participants discussed the Butler Property and agreed that it is a suitable location for a development scenario that activates the core of the downtown area. Less focus should be on building-out the site, than using the property as an activity generator for downtown.
- One participant offered that a metric for success of the site should be, “bodies per day,” that is, count the number of people coming to the property each day to gauge success as an activity generator and catalytic development.
- Participants discussed the concept of, “highest and best use,” and opined that fully building out a site, especially in an evolving district like downtown Newberg, is not always the most appropriate development option for achieving community goals. Smaller, less expensive development options many times can achieve property and community goals without overleveraging public resources, one participant said.
- The Butler Property was described as too small of a site to support a new hotel development.
- Less can be more – Participants opined that the Butler Property, especially with its small size, would be better developed with a modest amount of improvements that would be focused on attracting more people to downtown, rather than programing the site with as much commercial and residential space as would possibly fit on the site.

Appendix

Residential Pro forma

Project Description			
Building Type			
Description		Residential Mixed Use (with Corner Plaza)	Residential Mixed Use (Without Corner Plaza)
Option #		Option 1	Option 2
Site Attributes			
Gross Site Size (SF)		10,300	10,300
Gross Site Size (acres)		0.24	0.24
Site Coverage		81%	81%
FAR		2.3	2.6
Building Attributes			
Stories		4	4
Level 1		6,920	6,920
Level 2		5,758	6,500
Level 3		5,758	6,500
Level 4		5,758	6,500
Total GBA (Includes Internal Parking Area)		24,194	26,420
Commercial Rentable Space		1,350	2,400
Residential			
Number of Total Units		18	21
Level 1		-	-
Level 2		4,265	4,870
Level 3		4,265	4,870
Level 4		4,265	4,870
Total Residential RBA		12,795	14,610
Total Net Rentable Area		14,145	17,010
Avg unit size (sf)		711	696
Dwelling units per acre		76	89
Parking			
Total Parking Stalls		20	20
Parking Stall Size Allocation		300	300
Total Parking Stall Area		6,000	6,000

Newberg Core Catalyst Site Feasibility Study

Gross Revenue		Option 1	Option 2
Retail Space			
Retail Lease Rate (per SF per year, NNN)		\$ 18.00	\$ 18.00
Annual Retail Lease Revenue		\$ 24,300	\$ 43,200
Residential			
	Avg Unit Size	711 SF	696 SF
Rent per square foot per month		\$ 1.75	\$ 1.75
Average Gross rent per unit per month		\$ 1,244	\$ 1,218
Residential Annual gross rent		\$ 268,695	\$ 306,810
Parking			
Parking Lease Rate (per space per month)		\$ 50.00	\$ 50.00
Parking Annual Lease Revenue		\$ 12,000	\$ 12,000
Potential Gross Income (PGI)		\$ 304,995	\$ 362,010
Allowance for Vacancy (5%)		\$ 15,250	\$ 18,101
Effective Gross Income		\$ 289,745	\$ 343,910
Operating Expenses as \$/SF Gross (Not Reimbursed)		\$ 3.25	\$ 3.25
Operating Expenses as % of Income		27%	25%
Operating Expenses		\$ 78,607	\$ 85,839
Total Annual Expenses		\$ 78,607	\$ 85,839
Net Operating Income (NOI)		\$ 211,139	\$ 258,071
Capitalization Rate	6.25%	6.25%	6.25%
Project Value		\$ 3,378,218	\$ 4,129,129

Construction Costs		Option 1	Option 2
Hard Costs			
Podium Hard Cost per GBA SF		\$ 130	\$ 130
Upper Floors Hard Cost per GBA SF		\$ 110	\$ 110
GBA Cost Total		\$ 2,799,740	\$ 3,044,600
Total Hard Costs		\$ 2,799,740	\$ 3,044,600
Soft Costs (percent of hard costs)	30%	\$ 839,922	\$ 913,380
Total Building Cost		\$ 3,639,662	\$ 3,957,980
TBC per SF		\$ 150	\$ 150
Gross Margin	10%	10%	10%
Minimum Gross Margin Expectation (10% of Value)		\$ 337,822	\$ 412,913
Residual Land Value		\$ (599,266)	\$ (241,764)
Land Value per sf		\$ (58.18)	\$ (23.47)
Rounded		\$ (60.00)	\$ (20.00)

Office Pro Forma

Project Description		
Building Type		
Description		Office MU
Revenue Assumption		
Option #		
Site Attributes		
Gross Site Size (sf)		10,300
Gross Site Size (acres)		0.24
Site Coverage		81%
FAR		2.5
Building Attributes		
Stories		3
Level 1		8,591
Level 2		8,391
Level 3		8,391
Level 4		-
Total GBA (Includes Internal Parking)		25,373
Retail Rentable Space		1,350
Office Rentable Space		
Number of Total Units		19
Level 1		-
Level 2		7,000
Level 3		7,000
Level 4		-
Total Residential RBA		14,000
Total Net Rentable Area		15,350
Parking		
Total Parking Stalls		20
Parking Stall Size		300
Total Parking Stall Area		6,000

Newberg Core Catalyst Site Feasibility Study

Gross Revenue		
Retail Space		
Commercial Lease Rate (per SF per year, NNN)		\$ 18.00
Annual Commercial Lease Revenue		\$ 24,300
Office		
Rent per square foot per year (Modified Gross)		\$ 23.00
Average Gross rent per unit per year		\$ 161,000
Office Annual Gross Rent		\$ 322,000
Parking		
Parking Lease Rate (per space per month)		\$ 50.00
Parking Annual Lease Revenue		\$ 12,000
Potential Gross Income (PGI)		
Allowance for Vacancy (5%)		\$ 17,915
Effective Gross Income		
Operating Expenses as \$/SF Gross (Not Reimbursed)		
Operating Expenses as % of Income		23%
Operating Expenses		\$ 78,117
Total Annual Expenses		\$ 78,117
Net Operating Income (NOI)		
Capitalization Rate		7.50%
Project Value		\$ 3,496,906

Construction Costs		
Hard Costs		
Podium Hard Cost per GBA SF		\$ 130
Upper Floors Hard Cost per GBA SF		\$ 110
GBA Cost Total		\$ 2,962,850
Total Hard Costs		\$ 2,962,850
Soft Costs (percent of hard costs)	30%	\$ 888,855
Total Building Cost		\$ 3,851,705
TBC per SF		\$ 152
Gross Margin	10%	10%
Minimum Gross Margin Expectation (10% of Value)		\$ 349,691
Residual Land Value		\$ (704,490)
Residual Land Value per SF		\$ (68.40)
Rounded		\$ (70.00)

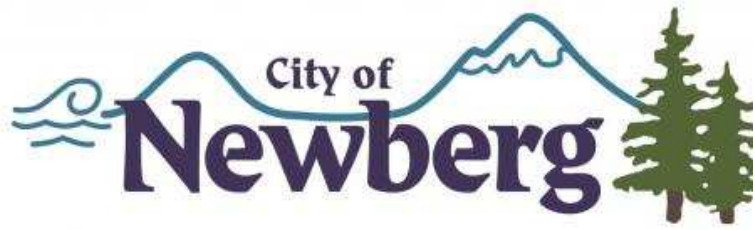
Hotel Pro Forma Details

Butler Site		
Residual Land Value Model for Hotel		
Assumptions / Inputs		
Limited Service Hotel		
Rooms		39
ADR		\$120
Annual ADR appreciation		3%
Stabilized occupancy		74%
Revpar		\$89
Years to stabilization		2
Construction cost		
Construction cost per room		\$145,000
Total construction cost per room		\$145,000
Construction period (months)		18
Investors Annual Return		9.9%
Investors Return on Equity		20.0%
Capitalization rate for reversion		8.00%
Loan to Value ratio		75%
Interest on Loan		5%
Amotization Period (years)		30
Outputs		
Residual Land Value		-\$422,988
Residual Land Value per SF		-\$41

APPENDIX

E

DOWNTOWN STRATEGIC PARKING MANAGEMENT PLAN



2016

City of Newberg, Oregon Downtown Strategic Parking Management Plan

PROJECT SUMMARY AND RECOMMENDATIONS FOR PARKING MANAGEMENT

FINAL REPORT
July 28, 2016



RICK WILLIAMS CONSULTING
Parking & Transportation

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ATTACHMENT A: PARKING EXISTING CONDITIONS

ATTACHMENT B: SUMMARY OF PARKING UTILIZATION – DATA SUMMARY REPORT

EXECUTIVE SUMMARY

Rick Williams Consulting was retained by the City of Newberg to conduct an evaluation of the downtown parking system and develop a comprehensive Strategic Parking Management Plan. The evaluation entailed a review of existing automobile and bicycle parking development code and related policy language. Actual use dynamics and access characteristics of the on and off-street parking supplies in downtown Newberg were studied as well. The findings create the foundation for a comprehensive strategic parking management plan that responds to the unique environment, goals, and objectives of downtown Newberg.

A total of 15 strategies are recommended for implementation by the City of Newberg. Successfully completed, these strategies will improve the efficiency of the City's parking system and provide a solid foundation for decision-making and accommodating future growth.

The full detailed parking management plan begins on page 4.

RECOMMENDED PARKING MANAGEMENT STRATEGIES

These strategies should be implemented within 36 months of plan adoption.

1. Establish Guiding Principles for Parking.
2. Establish a Parking Work Group as a forum for addressing parking issues in the downtown.
3. Amend code guidelines related to shared parking opportunities that could impede efficiencies for new development.
4. Simplify on-street time-stay allowances and reduce the number of "No Limit" parking stalls.
5. Create a critical path to a new parking brand that can be utilized at all City-owned lots and shared supplies and in marketing/communications.
6. Upgrade on-street parking signage and striping.
7. Upgrade public lots to set a standard for design and presentation.
8. Enhance the City's "front door" by improving the appearance and quality of privately owned surface parking in the downtown.
9. Create an east/west gateway communication system that is replicated throughout downtown.
10. Add bike parking at strategic locations to create connections between parking and the downtown.
11. Identify off-street shared-use opportunities based on data from 2016 off-street occupancy study. Establish goals for transitioning employees to off-street parking, begin outreach to opportunity sites, negotiate agreements, and assign employees to facilities.

12. Develop a reasonable schedule of data collection to assess performance of the downtown parking supply, including on- and off-street inventory and occupancy/utilization analysis.
13. Establish business-to-business outreach and communications on parking issues and planning.
14. Explore and develop funding options for maintaining the existing parking supply and funding future growth.
15. Identify strategically located surface parking lot for lease or purchase as a long-term public parking asset

The City may elect to reorder, accelerate, or moderate strategies depending on community support and consensus, opportunity, and/or funding. All strategies will require consistent and dedicated management with active participation by the private sector.

Estimated implementation timelines and cost estimates, where available, are detailed for each strategy recommendation in Section F beginning on page 13.

DOWNTOWN NEWBERG: SUMMARIZING BETTER PARKING MANAGEMENT

With support from the Oregon Department of Transportation, Rick Williams Consulting (RWC) was retained to examine parking management issues for the City of Newberg in conjunction with the update of the Newberg Downtown Improvement Plan (NDIP). The project's goals were to:



- Provide insight into the current parking environment in downtown Newberg;
- Get input from stakeholders and City staff to better understand needs and foster stronger public support;
- Assess current and future opportunities;
- Review and suggest changes to the parking code; and
- Take advantage of innovative parking management concepts to promote a vibrant and attractive downtown.

A. BACKGROUND

With construction of the Newberg Dundee Bypass underway, Newberg's downtown is primed for revitalization. Lined with early 20th-century buildings of architectural and historical significance, Highway 99W (also known as First Street) currently experiences heavy traffic volumes that can, at times, create an unfriendly environment for pedestrians and for retail storefront growth. However, when the Bypass is completed in late 2017, congestion along 99W will be significantly reduced, transforming the "feel" of downtown Newberg. This presents an opportunity for the City to reexamine and reinvest in its downtown, and create a safer and more pleasant place to live, work, visit, and shop.

Parking will play a key role in striking a balance between broader community goals for development, growth, and vitality and retaining downtown Newberg's historic character.

Parking management should support the system's intended users and contribute to a successful and well-functioning downtown. This report examines how the existing parking system is functioning and makes recommendations that will help Newberg flourish. These recommendations are sensitive to the historic, pedestrian-friendly nature of downtown and recognize the importance of economic growth. The report also provides a basis for future community discussions on enhancing the downtown parking system and experience. The information and recommendations in this report are intended to complement broader transportation and economic development efforts.



B. FORMAT OF INFORMATION – GETTING TO SOLUTIONS

This project has allowed the City and stakeholders to take a fresh look at the parking situation in Newberg with a view to improving the quality and ease of access in the downtown.

This report summarizes:

- Parking challenges and barriers
- Downtown parking inventory (on- and off-street)
- Existing parking utilization
- Recommendations for near-, mid-, and long-term solutions

C. SUMMARY OF CHALLENGES AND BARRIERS

From field observations and conversations with stakeholders and City staff, the consultant team developed a list of parking-related challenges and barriers in downtown Newberg. As solutions are developed (see **Section F**, page 13) they should relate directly to these issues.

1. *The appearance of Newberg's parking system can be improved.*

Surface parking can affect a downtown's overall image. When parking lots dominate the environment and are poorly designed or maintained, they undercut efforts to make downtown a vibrant, attractive area. With 85 surface lots, Newberg's parking system needs a fresh set of eyes to ensure that its appearance supports the economic vitality of a changing downtown. Shared-use agreements between the public and private sectors could be an effective strategy to achieve this.

2. *There is a lot of parking in Newberg, if seen as a shared resource.*

Although there appears to be a lot of parking, especially off-street parking, in the downtown on a typical day, it is not being used efficiently. Most parking is under private ownership and may only be used by specific businesses or institutions (outlined in 15.440.050(A/B)). Maximizing use of existing parking assets through well-managed shared use¹ could provide better access to downtown.

3. *Routine collection of usage data will support decision-making, planning, and management of the parking supply.*

The consultant team catalogued all parking in the downtown and conducted a "typical day" utilization study (see **Sections D/E** and **Attachment B**), establishing a solid foundation for understanding current parking dynamics. As the downtown develops, however, new demand

¹ Not bound by special covenant agreements

will put added pressure on the parking supplies. Routinely collecting data on system performance will greatly benefit the City and its stakeholders.

4. *Changes will require partnership-building.*

More vigorous parking management must be founded on a strong set of principles and priorities, and supported by a system of communication and clearly identified targets and outcomes. There must be consensus among the City and affected stakeholders on a plan of action, to be guided by and overseen through ongoing partnerships. This will involve determining and clarifying the City's role in facilitating, managing, and most importantly growing the parking supply.

5. *Better signs and clear striping will benefit the parking system.*

Appropriate signage communicates useful information to users and promotes a sense of uniformity throughout the system. Additional on-street striping that clearly delineates on-street stalls and no-parking or special-use zones will reinforce signage upgrades.

6. *Connections must be made between parking and the downtown.*

Parking should provide better access for all users of the downtown and surrounding areas. There should be multiple locations where users can park once, then easily walk or bike to primary and secondary destinations. Uniformly connecting this system with gateway signage at both ends of the downtown and other visual cues will make it easier for visitors to patronize Newberg's downtown businesses.

7. *Identification of surface lots for purchase.*

As the downtown grows, the City may want to consider purchasing surface lots for strategic development. If the City determines that it has a key role to play in developing parking, acquisition of strategic sites in advance of new growth would be beneficial and cost-effective.

D. PARKING INVENTORY SUMMARY

The consultant team inventoried the entire supply of on- and off-street parking in the downtown. This section summarizes key components of that effort.²

1. *Study Area*

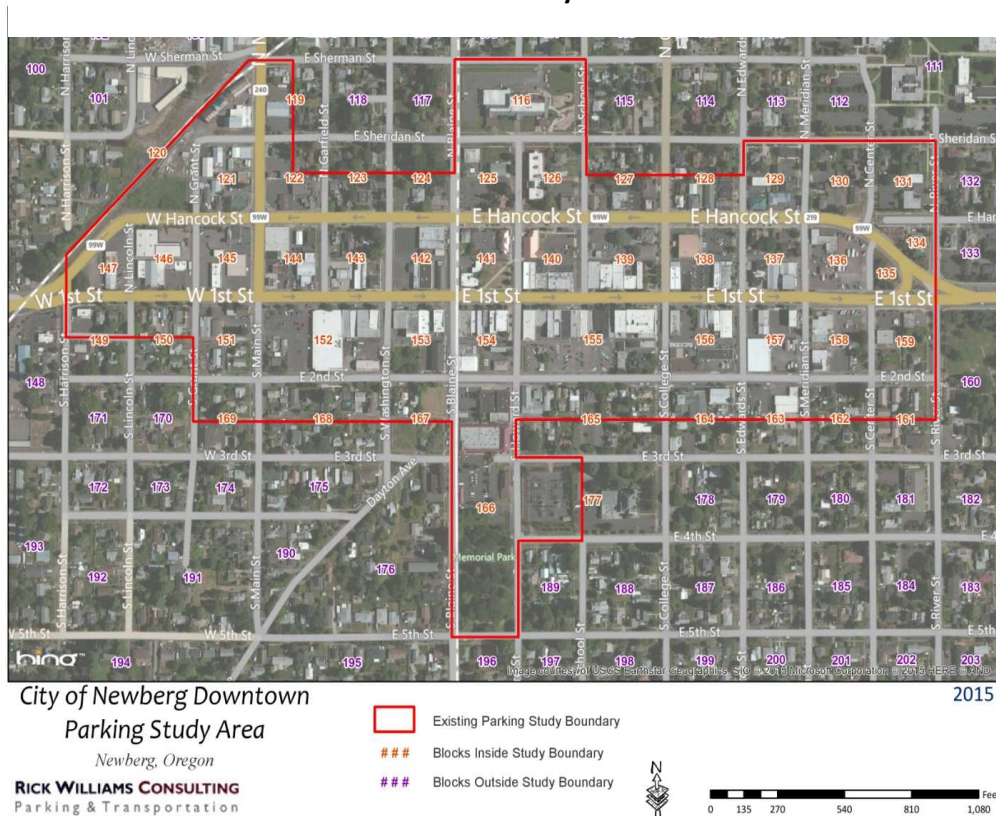
The study area was determined during the initial project scoping process by the City of Newberg and the consultant team. It is generally bounded by S Harrison Street on the west, E 2nd Street on the

² **Attachment B**, at the end of this report, provides a detailed *Parking Utilization Summary Data Report* that presents the complete inventory and utilization analysis. This section provides a shortened version of that report.

south, E Sherman Street on the north, and S River Street on the east. The inclusion of Memorial Park extends the southern boundary to E 5th Street.

Figure A illustrates the study area.

Figure A
Downtown Study Area



2. Key Findings

Table 1 (next page) provides a complete summary of on- and off-street parking in downtown Newberg. There are 2,106 stalls in the study area: 960 on-street and 1,146 off-street.

On-street

As **Table 1** indicates, on-street parking in this area has a mix of time-stay options, comprised of nine categories ranging from 10 minutes to No Limit.

- A majority of stalls do not have a designated time stay, referred to here as No Limit. Of the 960 total stalls, 654 (68.1%) are No Limit. This is a very high percentage of the on-street system dedicated to long-term use, particularly if higher visitor activity is desired. Stalls with stays of

one or two hours, generally more associated with visitor use, make up only 28% of the on-street supply.

Table 1
2016 Downtown Newberg Parking Inventory

Downtown Newberg Parking Inventory – On and Off-Street		
Stall Type	Stalls	% of On-Street Stalls
10 minutes	3	< 1%
15 minutes	14	1.5%
30 minutes	1	< 1%
1 hour	6	< 1%
2 hours	269	28.0%
No Limit	654	68.1%
Accessible (ADA)	9	< 1%
Theater Only	3	< 1%
Reserved	1	< 1%
On-Street Subtotal	960	46%
Off-Street Subtotal (85 sites)	1,146	54%
Total (All On and Off-Street)	2,106	100%

- The remainder of the on-street supply includes 10-, 15- and 30-minute stalls that combine for slightly less than 2% of the supply.
- Special use parking, including Accessible (ADA), Theater Only, and Reserved, totals 13 stalls (slightly more than 1%).

With the large number of No Limit stalls, the current format favors long-term parking. While overall occupancy levels are relatively low at present (see **Section E**), reformatting time limits to include more short-term parking should be considered to encourage retail development.

Off-street

To better understand their purpose, lots were sorted by their typical manner of use. **Table 2** (next page) identifies all lots by use type, and indicates the number of lots of that type, the combined number of stalls per type, and the percentage of total stalls that represents. This is summarized on the left half of the table. The table also provides a glimpse at the 27 lots that were sampled during the data collection effort. This is summarized on the right half of the table.

Table 2
Off-street Inventory - By Use Type

Use Type	Number of Lots Inventoried	Stalls	% of Total	Number of Lots Surveyed	Stalls	% of Total
Auto	4	36	3%	0	0	0%
Bank	3	48	4%	2	36	3.1%
Church	2	18	2%	1	15	1.3%
Civic	2	95	8%	1	54	4.7%
Institution	1	32	3%	1	32	2.8%
Medical	2	24	2%	1	18	1.6%
Office	14	163	14%	4	52	4.5%
Public	4	131	11%	4	130	11.3%
Residential	4	36	3%	0	0	0%
Restaurant	10	128	11%	2	43	3.8%
Retail	20	279	24%	7	135	11.8%
Service	14	98	9%	3	40	3.5%
Unknown	5	59	5%	1	24	2.1%
Total	85	1,146	100%	27	579	50.5%

- The majority of off-street parking is private: 81 of 85 lots, comprising 1,016 stalls and representing 89% of all off-street parking.
- Parking for retail uses represents the largest portion of off-street parking at 24%, with 279 stalls on 20 lots. This is followed by parking for office uses at 14%, with 163 stalls on 14 lots.
- Publicly-owned parking represents 11% of the off-street supply, with 130 stalls on four lots.
- The current balance of private and public parking is not unusual for downtowns, but does mean that shared-use agreements can be more complex, involving negotiations with individual owners of private lots.

E. KEY FINDINGS: PARKING UTILIZATION

Utilization and occupancy data was collected on April 13, 2016 for the on- and off-street parking systems. This section summarizes key findings from that effort.³

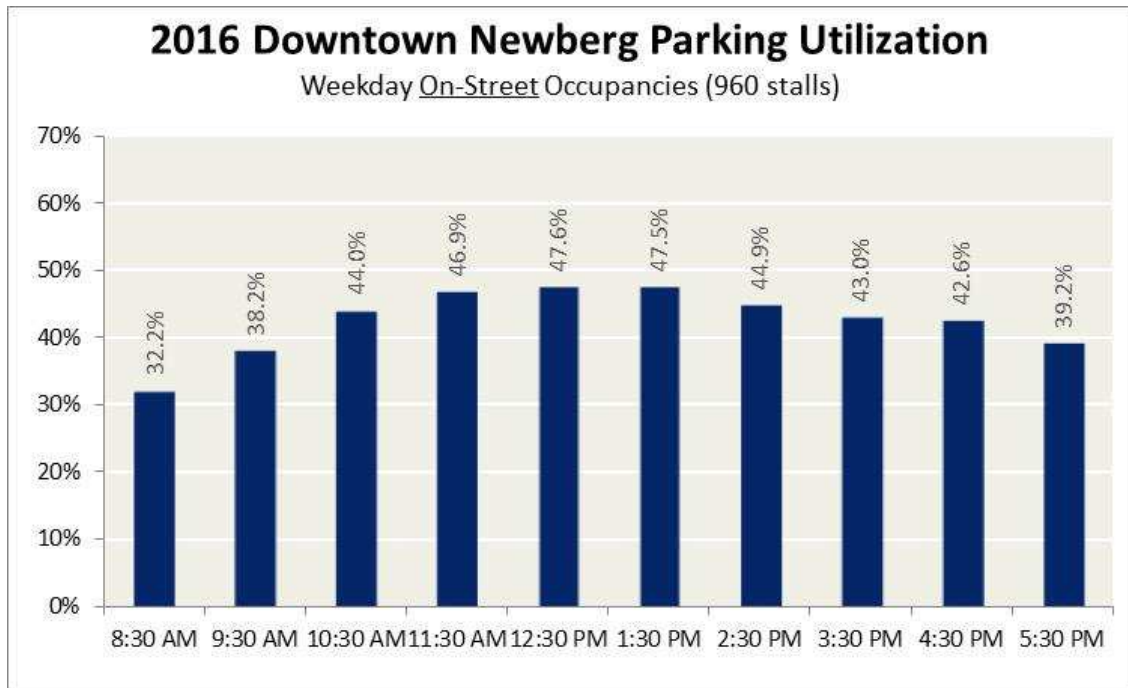
1. On-Street Parking Summary

The on-street survey involved hourly counts of occupied parking stalls in the study area. Surveyors recorded the license plate numbers of parked vehicles each hour from 8:00 AM to 6:00 PM. All 960 on-street stalls were surveyed. **Figure B** (next page) provides an hour-by-hour look at occupancy performance on the survey day.

- The peak hour for all on-street parking is from noon to 1:00 PM. During this hour, 460 stalls (47.6%) are occupied, leaving 500 stalls empty.
- The overall low occupancy level of 47.6% indicates that parking is readily available on-street throughout the day. There are very few instances where the system is constrained for any sustained period of time.
- There is abundant parking available, with significant capacity to absorb new trips.
- The average length of stay for all on-street parkers is 2 hours 50 minutes. This average includes those parking in No Limit stalls.

³ As with information related to the parking inventory, **Attachment B**, at the end of this report, provides a more detailed *Parking Utilization Summary Data Report*.

FIGURE B
2016 Newberg on-Street Utilization



2. Off-Street Parking Summary

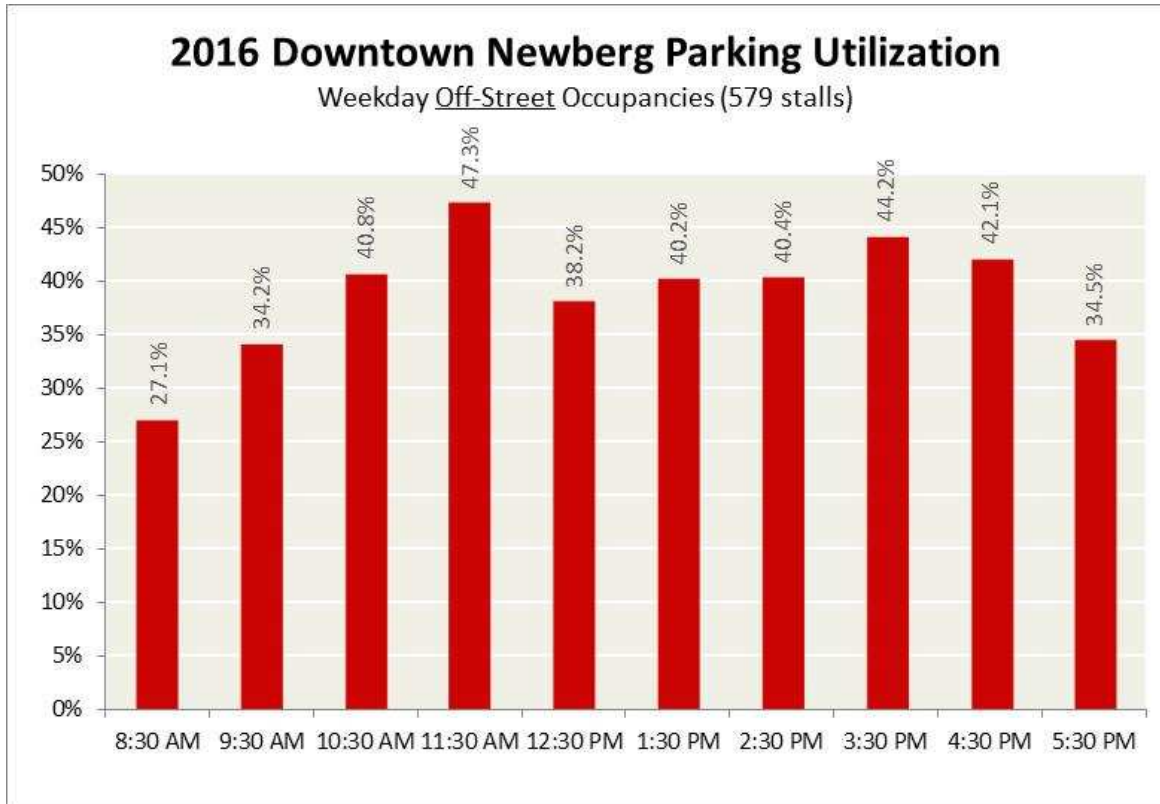
Off-street facilities were also surveyed on April 13th, 2016. A sample of 27 lots totaling 579 stalls was selected for data collection. This sample represents 50.5% of all off-street parking in the study area and accurately reflects the overall system in terms of type, size, and location. Occupancy counts were conducted at each lot every hour between 8:00 AM and 6:00 PM; unlike the on-street survey, however, license plate numbers were not recorded.

Figure C (next page) illustrates occupancy levels for each hour of the ten-hour survey day.

- The highest occupancy occurred between 11:00 AM and 12:00 PM, one hour earlier than the on-street system.
- During the peak hour, the off-street supply reached 47.3% occupancy, leaving 305 stalls available for use.⁴
- As with the on-street system, this is a low rate of use, leaving an abundance of parking available to accommodate new growth and increases in parking demand.

⁴ When combined with the on-street system, approximately 808 total stalls were empty at the peak.

Figure C
Hourly Parking Utilization



3. Conclusion: Data Findings

The 2016 data analysis of parking in downtown Newberg indicates that the system is operating at a low level of capacity. The combined peak-hour occupancy level hovers around 47%, and parking is generally available on- or off-street throughout the study area. Recalibrating on-street time stays to more accurately reflect the needs of short-term users will be one step in encouraging ground-level business. This would begin with strategically reducing the number of No Limit stalls in the downtown and replacing them with 2-hour stalls. Working with owners of private off-street parking to create partnerships and discuss shared parking opportunities will complement reformatting of the on-street supply.

F. PARKING MANAGEMENT: RECOMMENDED SOLUTIONS

The solutions outlined below support recommendations that grew from discussions among the City, its downtown partners, and the consultant team. They follow a logical progression in which each action provides a foundation for subsequent actions.

Actions are described in phases ranging from near to long-term. Overall, the implementation schedule is flexible and the order of projects may be changed as opportunities and resources are identified. All strategies will require a level of support, coordination, commitment, and resource identification that goes well beyond what is currently in place. Where possible, cost estimates are provided, but only within the framework of planning. Final costs would require additional evaluation, scoping, and estimating.

STRATEGY 1: Establish Guiding Principles for Parking.

Guiding Principles are based on the premise that growth and development in the downtown will require an integrated and comprehensive package of strategies to support economic development and redevelopment. The ensuing parking plan becomes but one critical element of a larger coordinated package for economic growth.

TIMELINE: Near-term (0 – 12 months)

- Create a uniform appearance for on- and off-street parking, including signage, striping, and landscaping.
- Brand signage by creating a name, symbol, or design that clearly identifies all public parking.
- Use the 85% Rule to facilitate decision-making.⁵
- Include bike parking and access as a key strategy.
- Expand shared-use partnerships whenever possible and treat all parking as a community resource.
- Provide a forum for ongoing community involvement in parking decisions.
- Treat parking management as a partnership between the City and the business community.
- Ensure that the public parking system is financially sound and self-sustaining.
- Ensure that the City is ready to respond to growth, and recognize that funding will require a varied package of resources and partnerships.

Estimated Costs (STRATEGY 1)

There should be no costs associated with this recommendation other than normal staff costs for moving the plan to City Council for endorsement or approval.

⁵ The 85% Rule is an operating principle and parking industry standard. When occupancies routinely reach 85% in the peak hour, more *intensive and aggressive* parking management strategies are called for.

STRATEGY 2: Establish a Parking Work Group as a forum for addressing parking issues in the downtown.

Active participation by those affected guarantees an understanding of and consensus on parking management and trigger points for decision-making. This is best accomplished through an established advisory committee that reviews performance, serves as a sounding board for issues, and acts as a liaison to the broader stakeholder community.



The City should develop a process through which a representative cross-section of downtown interests *routinely* assists in the review and implementation of the Downtown Parking Management Plan. This effort could be coordinated through the Newberg Downtown Coalition. The new Parking Work Group can use the recommendations in this plan as a basis for action, discussion, stakeholder communications, and tracking progress.

TIMELINE: Near-term (0 – 12 months)

- Schedule regular meetings to advocate for, shepherd, track, and communicate the plan.
- Establish a draft parking brand.

TIMELINE: Mid-term (12 - 24 months)

- Establish business-to-business outreach.
- Facilitate data collection efforts.
- Assess Plan progress.
- Provide advisory input to City Council.
- Coordinate communications with the broader downtown business community.
- Determine and implement action items.

TIMELINE: Long-term (24 – 36+ months)

Over time, the work group could evolve into a formal advisory committee to City Council on downtown parking issues and meet on a more frequent schedule.

Estimated Costs (STRATEGY 2)

There should be no additional costs associated with this recommendation if it can be initiated as a volunteer effort, hosted by the City in partnership with downtown business interests.

STRATEGY 3: Amend code guidelines related to shared parking opportunities that could impede efficiencies for new development.

The consultant team briefly evaluated the City's current parking regulations and policies, and highlighted the following challenges:⁶

- A. Use of shared use facility due to accessory designations and conditions placed on mixed uses outlined in 15.440.050(A/B).
- B. Existing surface lot landscaping/coverage requirements may be too restrictive in the C-3 zone, and there is a lack of standards for appearance.

TIMELINE: Mid-term (0 – 12 months)

- Examine changes to the code as described in the Opportunities and Constraints section of the *Downtown Newberg Parking Existing Conditions Memorandum* (see **Attachment A**).

Estimated Costs (STRATEGY 3)

There should be no additional costs associated with this recommendation if it can be initiated as a staff-led effort in consultation with the City Council.

STRATEGY 4: Simplify on-street time-stay allowances and reduce the number of No Limit parking stalls.

Multiple time-stay designations are often confusing to users, particularly shorter stays that do not provide enough time for a typical customer visit. There are currently nine different time-stay designations in the downtown, while the majority of on-street parking (68%) is unregulated No Limit parking. Short-term and No Limit stalls should be reduced or eliminated to ensure that block faces fronting ground-level businesses provide 2-hour parking. This will bring clear and consistent time-stays to downtown and encourage greater employee use of currently unused off-street parking (see Strategy 11).

TIMELINE: Mid-term (0 – 12 months)

- Use 2016 inventory to identify No Limit stalls that front businesses.
- Schedule replacement of these stalls with 2-hour parking per Strategy 6 below.

⁶ **Attachment A** provides the full summary.

Estimated Costs (STRATEGY 4)

Costs associated with this strategy would be incorporated into signage upgrades outlined in Strategy 6 below.

STRATEGY 5: Create a critical path to a new parking brand that can be utilized at all City-owned lots and shared supplies, and in marketing/communications.

The second Guiding Principle recommended in Strategy 1 encourages the City to “brand signage by creating a name, symbol, or design that clearly identifies all public parking.” It is recommended that a simple stylized “P”, coordinated with colors associated with the City of Newberg, be developed as the brand. This brand can then be used at parking sites and, ideally, as part of a wayfinding system throughout the downtown, and including a gateway signage project (see Strategy 9). It can also be incorporated into marketing and communications efforts, such as maps, websites, etc.

Several brand examples are provided below.



TIMELINE: Near to mid-term (0 – 24 months)

- With the Parking Work Group (Strategy 2), engage a design firm to develop an attractive and recognizable parking brand for use by the City of Newberg at all of its public off-street facilities, and any shared-use facility that offers visitor access. The design professional would:
 - a) Work with stakeholders and the City to create a new parking brand for Newberg.
 - b) Develop options and assist in developing a final recommended brand/logo.
 - c) Develop cost estimates for the creation and placement of new brand/logo signage packages at all City-owned off-street sites and shared-use facilities.
 - d) Assist in signage creation.

TIMELINE: Long-term (24 - 36 months)

- Deploy brand.

Estimated Costs (STRATEGY 5):

It is estimated that engaging a design consultant to carry out the above tasks would range from \$15,000-\$20,000.

STRATEGY 6: Upgrade on-street parking signage and striping.

Among the noticeable challenges observed by our team was parking signage and striping that is inconsistent, out of date, and at times confusing. Signage should be consistent and communicate clear and positive messages to users. Effective striping will communicate “you can park here,” reduce incidents of damage to vehicles, and facilitate compliance.

Additionally, incorporating the City’s parking logo into the on-street system should be considered as a means of integrating the on- and off-street systems. In Springfield, Oregon, a stylized “P” was created for the public parking system and incorporated into on- and off-street signage (see illustration, bottom right.). For Newberg, this would provide a recognizable reference on-street and raise awareness of the parking brand off-street.



Newberg: 2-Hour and Two-Hour signage



Newberg: Faded striping

TIMELINE: Mid-term (12 – 24 months)

- Replace/upgrade signage.
- Repaint/repair curbs and curb markings.
- Stripe all on-street areas where parking is allowed.

Estimated Costs (STRATEGY 6)

In a previous study conducted for Prineville, Oregon, the City estimated it spends \$145 per block to stripe parallel parking in its downtown. Using this estimate, a budget of \$5,000 annually for on-street stripe upgrades and maintenance would accommodate nearly 35 typical city blocks. This budget is likely to decrease as routine maintenance is implemented. Individual street signs average \$150-\$300 each.



Example (Springfield, OR): Parking Logo into on-street signage.

STRATEGY 7 Upgrade public lots to set a standard for design and presentation.

Given the variety of public and private off-street facilities in the downtown, upgrading and standardizing the four public lots would set a higher standard for appearance, format, and design. The lots should be branded so as to clearly communicate their purpose to users (see Strategy 5).

A model format for public lots would set a new standard for parking in Newberg, encouraging private lot owners to upgrade and setting the tone for future parking development.

TIMELINE: Near-term (0 – 12 months)

- Upgrade the four public lots in the downtown core.

TIMELINE: Mid- to Long-term (12 – 24 months)

- Complete lot upgrades.

Estimated Costs (STRATEGY 7)

Not enough is known regarding ownership, land costs, availability, and other factors to estimate costs at this time.

STRATEGY 8: Enhance the City’s “front door” by improving the appearance and quality of privately owned surface parking in the downtown.

There do not appear to be comprehensive standards for paving, lighting, buffering, or signage that would lead to a *uniform appearance* for the numerous surface parking facilities in the downtown (see 15.440.060 of the Municipal Code).

When someone arrives by vehicle, their first impression of the downtown is created by a parking facility. The quality of that impression should be equal to that of the community’s buildings, businesses, and vision. Improving the appearance of parking facilities improves the appearance and experience of downtown.

TIMELINE: Near-term (0 – 12 months)

- Implement simple, low-cost improvements to *existing* lots. These can include landscape improvements, the use of



Example: inexpensive but functional landscaping

planters and screens (see example, right), or creative murals along blank building walls. This can likely be accomplished through voluntary efforts and/or small incentives.

TIMELINE: Mid- to Long-term (12 – 36+ months)

- Explore and develop incentives for upgrading poor-quality lots, such as urban renewal initiatives, grants, public/private partnerships, etc.
- Review and revise design standards to ensure a uniform appearance for surface lots in the downtown.

Estimated Cost (STRATEGY 8):

Costs associated with this strategy need to be further refined based on potential public/private partnerships and use of existing resources. Code changes recommended within the larger NDIP process are likely not cost issues so much as staff time and scheduling, and Council involvement.

STRATEGY 9: Create an east/west gateway communication system that is replicated throughout downtown.

Gateway signage located at the east and west ends of downtown (Hancock Street and 1st Street) would begin to create an integrated system of guidance based on a consistent design format. If possible, the consulting team recommends that the parking brand be incorporated into the gateway signage. Similar but smaller scale signage would be placed at public lots to assure users that they are parking in the correct facility. This also reinforces the Newberg parking brand.



Examples: Portal Parking Signage

TIMELINE: Near- to mid-term (0 – 12 months)

- Locate, research, and design gateway signage

TIMELINE: Long-term (12 - 24+ months)

- Implement at gateways and coordinate with Strategies 5–7.

Estimated Costs (STRATEGY 9)

Not enough is known regarding the overall cost of a gateway signage program to estimate costs at this time.

STRATEGY 10: Add bicycle parking at strategic locations to create connections between parking and the downtown.

When we talk about parking management, we're not just talking about cars. Communities throughout Oregon support bicycling as a key sustainable transportation strategy, and the Oregon Transportation Planning Rule requires it for new developments. Newberg can become a city that encourages a "park once" philosophy, where people park their vehicles and then bike or walk to shop, dine, and recreate in the downtown. Providing adequate bicycle parking can also expand the capacity of the overall parking supply. The city has a few staple racks in front of retail stores, but more racks are a visible indicator of a bike-friendly community.

It is recommended that the City expand its approach to bike parking to deliver a four-strategy approach. It is assumed that this would support future efforts to expand the City's bike lane network.

The four-strategy approach includes:

- a) *Sidewalk bike parking*
Identify locations for added bike parking in pedestrian amenity zones.
- b) *Bike corrals*
Identify locations for bike corrals on-street and in plaza areas adjacent to high-traffic businesses.
- c) *Bike parking on private property*
Identify areas on private property for bike parking improvements, especially for employees, e.g. interior bike cages, wall rack locations, and other secure areas.
- d) *Identify funding/incentives*
Assemble funding sources necessary to implement a) – c).

TIMELINE: Near- to Mid-term (0 – 24 months)

- Identify on- and off-street locations for bike racks, bike boxes, and bike corrals.



Example: Bike Corral Ashland, OR



Example: Art Rack Baker City, OR

- Add high-visibility bike parking throughout downtown, encouraging visitors to stop and shop across both ends of downtown.

TIMELINE: Long-term (24 – 36 months)

- Consider using bike corrals or clusters in parking areas to maximize bike parking.

Estimated Costs (STRATEGY 10)

The cost of inventorying potential bike parking locations could be incorporated into the data collection portion of Strategy 12 below. Site identification could also be done through volunteer efforts and by working with downtown stakeholders and bike advocates. Costs are likely minimal.

Estimated unit costs⁷ for actual bike infrastructure:

- Staple or inverted U racks⁸: \$150-\$200
- Wall-mounted racks: \$130-\$150
- Bike corral \$1,200⁹
- Art rack variable based on design

STRATEGY 11: Identify off-street shared-use opportunities based on data from 2016 off-street occupancy study. Establish goals for transitioning employees to off-street parking, begin outreach to opportunity sites, negotiate agreements, and assign employees to facilities.

The majority of parking in the downtown is off-street in privately owned assets. Per the 2016 downtown parking study, there are significant surpluses in the off-street supply. Based on the principle that “all parking should be seen as a community resource,” shared uses of privately owned parking should be identified and pursued.

Figure D (next page) provides an illustration from the 2016 study of peak-hour occupancies in off-street lots. At the 27 sites surveyed, 305 stalls are empty in the peak hour. As the figure indicates, these unused stalls are uniformly distributed throughout the downtown.

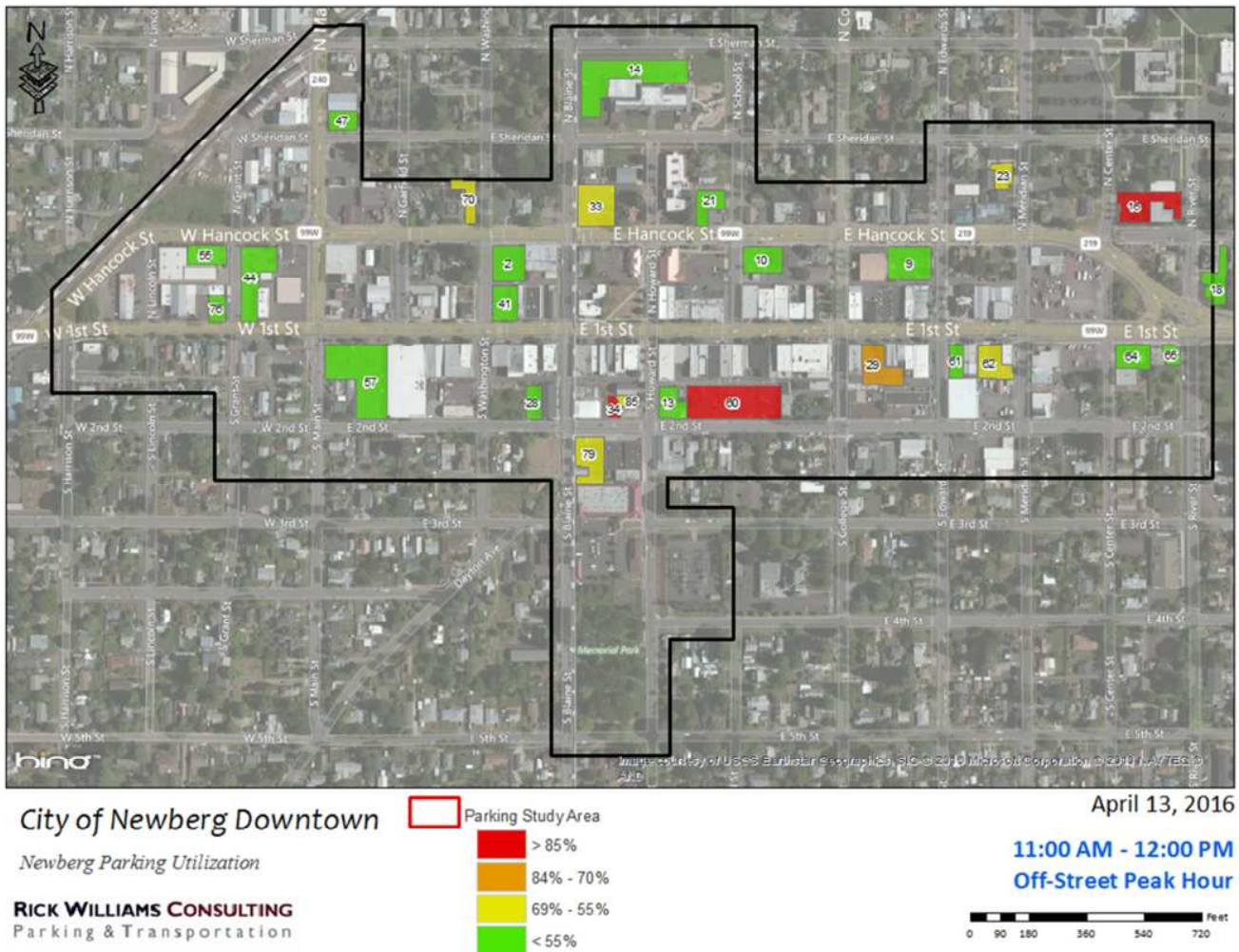
Extrapolating this data to the entire off-street supply (85 sites) would leave as many as 604 stalls unused in the peak hour. This is an untapped resource for “getting the right parker to the right stall”—in this case, transitioning employees to off-street facilities—and for absorbing new demand.

⁷ Does not include the cost of installation.

⁸ The consultant discourages the use of ‘wave’ racks, as they are more difficult to get a bike in and out of and do not provide two points of contact on the bicycle, which makes them more prone to falling over.

⁹ Based on City of Portland cost estimate for six staple racks (12 bike parking spaces), striping, bollards, and installation.

Figure D
Potential Shared Use Opportunity Sites



TIMELINE: Near-term (0 - 12 months)

- Use data from the 2016 downtown parking study to identify facilities that could serve as reasonable shared-use opportunity sites. Criteria could include proximity to employers, a meaningful supply of empty stalls, pedestrian/bike connectivity, walking distance/time, safety and security issues, etc.
- Based on the above, develop a short list of opportunity sites and identify owners.
- Establish a target goal for the number of downtown employees to transition into opportunity sites.

TIMELINE: Mid-term (12 – 24 months)

- Begin outreach to owners of private lots.
- Negotiate shared-use agreements.

TIMELINE: Long-term (24 – 36+ months)

- Obtain agreements from downtown businesses to participate in the employee assignment program.
- Implement program.

Estimated Costs (STRATEGY 11):

Costs of outreach are not known at this time, but could be minimized through coordinated efforts of existing staff and volunteers and/or partnerships between the Newberg Downtown Coalition to identify opportunity sites and engage the private sector. Planning in this regard may determine that funds are needed to create incentives and/or improve the condition of lots or pedestrian/bike connections.

STRATEGY 12: *Develop a reasonable schedule of data collection to assess performance of the downtown parking supply, including on- and off-street inventory and occupancy/utilization analysis.*

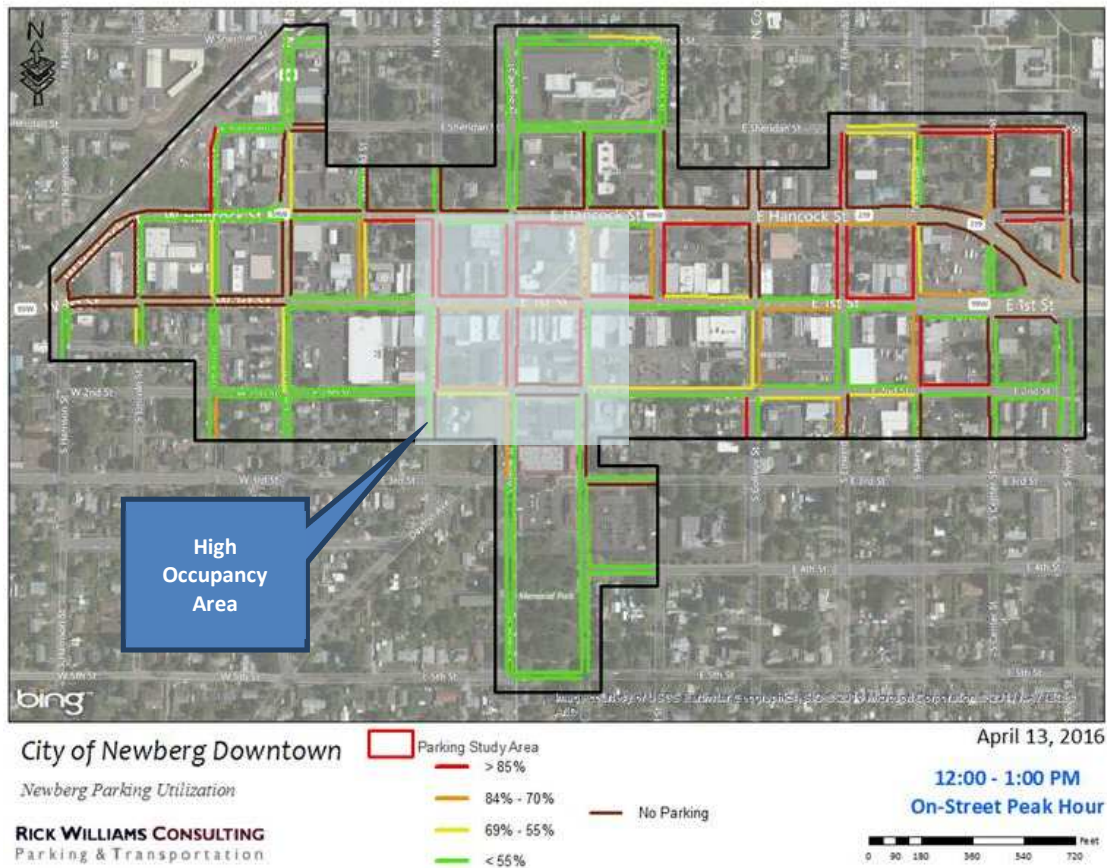
Objective, up-to-date data on occupancy, seasonality, turnover, duration of stay, patterns of use, and enforcement will help the City and stakeholders make better-informed decisions as the downtown grows. The data gathered in 2016 as part of the *Parking Utilization Summary Data Report (Attachment B)* is a baseline for future assessments of the parking supply.

The system for supplementing the baseline does not need to be elaborate, but it should be consistent, routine, and structured to answer relevant questions about the metrics listed above. Data can be collected in samples, and other measures of success can be gathered through third-party or volunteer processes. It is recommended that updates occur at least every two years.

The methodology for conducting the 2016 parking inventories and data analyses is provided in Oregon Transportation & Growth Management's *Parking Made Easy: A Guide to Managing Parking in Your Community*, specifically Chapter 7. The guide can be found at www.oregon.gov/LCD/TGM/docs/parkingprimerfinal71213.pdf.

Figure E illustrates the value of good data in understanding the dynamics of parking in a downtown.

Figure E
2016 Peak Hour Data Sample



TIMELINE: Mid- to long-term (12 – 36+ months)

- Conduct routine turnover and occupancy surveys of the on- and off-street facilities in downtown at least every two years.
- Replicate the 2016 RWC study boundary to have an accurate data comparison.
- Determine a routine schedule and timeline for implementation.
- The Parking Work Group can use this data to inform ongoing decisions in an objective manner.

Estimated Costs (STRATEGY 12)

It is estimated that a data inventory and turnover/occupancy study would range from \$25,000-\$30,000 if conducted by a third-party consultant. Costs can be minimized in subsequent surveys

through use of the inventory/database already in place, as well as through sampling and possible use of volunteers to collect data.

STRATEGY 13: Establish business-to-business outreach and communications on parking issues and planning.

This strategy is most likely an addendum to Strategy 2, which uses the Parking Work Group as a source for targeted strategic communications to downtown businesses, employees, and the broader community. However, it is listed here as Strategy 13 because outreach and communications are most successful when key plan elements are formalized and packaged in clear, focused, and concise terms.

A program of visits to downtown businesses with informational materials and “open ears” would be employed. This could be accommodated through the existing Newberg Downtown Coalition or Work Group volunteers. Information from such visits would be catalogued and reported back to the Work Group. Similar programs are in place in other cities, including Gresham (“Customer First”) and Oregon City (through the Oregon City Main Street Partnership).

TIMELINE: Near- to mid-term (0 – 24 months)

- Support outreach efforts of a downtown Parking Work Group.
- Work with the Newberg Downtown Coalition and City staff to participate in and support the Work Group in these efforts.

TIMELINE: Long-term (24 – 36+ months)

- Conduct ongoing outreach and communications with downtown stakeholders supported by sound data and targeted outcomes.

Estimated Costs (STRATEGY 13)

Key costs for outreach include materials development (graphic design of brochures, flyers, web-based resources, etc.). Estimated costs could range from \$1,500 to \$3,000 annually.

STRATEGY 14: Explore and develop funding options for maintaining the existing parking supply and funding future growth.

A wide range of funding sources and revenue streams could be used to implement an enhanced parking management plan and develop new parking capacity in Newberg. Given the costs of new infrastructure, considering new funding mechanisms is prudent. The list of potential sources here

are not exhaustive, nor are these sources mutually exclusive. Funding for parking facilities, particularly garages, in emerging urban areas generally requires multiple sources.

The use of fees continues to evolve as various State laws or City ordinances are authorized. Implementation of fees should be reviewed by the City Attorney to determine their feasibility in light of applicable laws.

The options below assume a more detailed discussion of the role of the City in future funding of parking, and public discussion regarding use of public funds to build and operate new systems.

Options Affecting Customers

User Fees

Many cities collect revenue through parking meters and/or sale of permits, and direct it to parking or transportation development enterprise funds. Transit or shuttle riders pay in the form of fares. These funds can be used to construct or bond for additional parking or transit capacity.

Event Ticketing Surcharges

Surcharges may be imposed in conjunction with local and regional facilities (e.g., performing arts, sports, and concert venues) to support development of access systems. Fees are generally applied to ticket costs.

Parking Fines

Revenues are collected for parking violations and a portion directed to parking development enterprise funds.

Options Affecting Businesses

Parking and Business Improvement Area or District (BIA or BID)

An assessment on businesses and/or property owners, these can be based on assessed value, gross sales, square footage, number of employees, or other factors established by the local legislative authority. Salem, Oregon assesses a fee on businesses in its downtown Parking District to support parking services and future supply. Portland assesses a business income tax through the State of Oregon to support transit.

Options Affecting Property Owners

Special or Local Improvement District (SID/LID)

An SID or LID is a property tax assessment that requires value-based approval by property owners within a specifically identified boundary. LIDs usually result from a petition process requiring a

majority of owners to agree to an assessment for a specific purpose—in this case, a parking facility infrastructure improvement.

Options Affecting Developers

Fee-in-Lieu

Developers may be given the option to pay a fee in lieu of providing parking with a new private development. Fees-in-lieu provide the developer access entitlements to public parking facilities near the development site.

Fees-in-lieu can be assessed up to the full cost of parking construction. However, most programs have fees that are less than the full cost of development. Therefore, fees-in-lieu do not provide sufficient revenue to fully fund parking facilities, and are combined with other revenue sources.

If a fee-in-lieu is considered a realistic funding source, the City should be clear on its role and responsibility in providing new parking supply. As mentioned in Section C regarding potential challenges, “determining and clarifying the City’s role in facilitating, managing, and most importantly growing the parking supply” is critical.

In this regard, there will need to be greater clarity on the intent and purpose of the fee, its use in increasing parking capacity, and the commitment(s) the City will make to those who pay the fee. Lack of specificity in this regard limits discussion of the type of fee, the rate, and the programs and strategies needed to achieve desired outcomes. A useful guide to the diversity of cash-in-lieu programs and their advantages and disadvantages is Donald Shoup, *Journal of Planning and Education Research*, 18:307-320, 1999.

Public/Private Development Partnerships

Development partnerships are generally associated with mixed-use projects in which parking is used to reduce the cost of private office, retail, or residential development. Public/private development can occur through a variety of arrangements, including:

- a. Public acquisition of land and sale or lease of land/air rights not needed for parking to accommodate private use.
- b. Private development of integrated mixed-use development with sale or lease-back of the public parking portion upon completion.
- c. Responsibility for public sector involvement directly by the City, through a public development authority or other special purpose entity, such as a public facility district created for the project district or downtown area.

Options Affecting the General Public

General Obligation (GO) Bonds

Local jurisdictions may issue voted or non-voted bonds to develop parking or transit infrastructure, subject to overall debt limit requirements. With GO bonding, the municipality pledges its full faith and credit to repayment of the debt from general fund resources. In effect, general fund revenues would be reserved to repay debt that could not be supported by parking or transit revenues alone. Again, there may be imposed limits on the municipality for voter-approved or non-voted debt.

Refinancing GO Bonds

This involves refinancing existing debt at lower rates, and pushing the savings from the general fund to debt coverage for new infrastructure. In these times of lower interest rates, the City of Newberg may have already maximized this option.

Revenue Bonds

Revenue bonds dedicate parking fees and other designated revenue sources to the repayment of bonds, but without pledging the full faith and credit of the issuing authority. Revenue bonding is not appropriate in situations where a local jurisdiction's overall debt limit is a factor and projected revenues are insufficient to cover required debt service.

63-20 Financing

A potential alternative to traditional GO bonds, revenue bonds, and LID bond financing, 63-20 financing allows a qualified nonprofit corporation to issue tax-exempt bonds on behalf of a government. Financed assets must be capital and must be turned over free and clear to the government by the time bonded indebtedness is retired. When a municipality uses this technique to finance a public facility, it can contract for the services of a nonprofit corporation (as the issuer) and a builder. The issuer acts on behalf of the municipality, but has no real business interest in the asset being acquired.

Community or Urban Renewal (Tax Increment Financing)

Though originally created for the limited purpose of financing the redevelopment of blighted communities, tax increment financing (TIF) has developed into an integral part of the revenue structure of many local governments. The rapid growth of TIF as an economic development technique of choice to finance land acquisition, site development, and property rehabilitation/revitalization began in the early 1980s. Tax increment financing can provide an ongoing source of local property tax revenue to finance economic development projects, and other physical infrastructure projects, without having to raise property tax rates. Moreover, TIF can leverage future general fund revenues to support the repayment of property-tax backed debt, without having to go directly to voters for approval, and without violating debt limitations.

State and Federal Grants

In the past, a variety of state and federal grant programs have been applied to funding parking and transit infrastructure in business districts. In the current environment of more limited government funding, there may no longer be readily identifiable programs suitable for parking facility development, though transit may be more feasible.

General Fund Contribution

Local jurisdictions may make either one-time capital or ongoing operating contributions to a downtown parking or transit/shuttle program.

TIMELINE: Near- to mid-term (0 – 24 months)

- Evaluate the range of funding options outlined above.
- Narrow to the most feasible and beneficial options.

TIMELINE: Long-term (24 – 36+ months)

- Implement and pursue the most promising strategies.

Estimated Costs (STRATEGY 14):

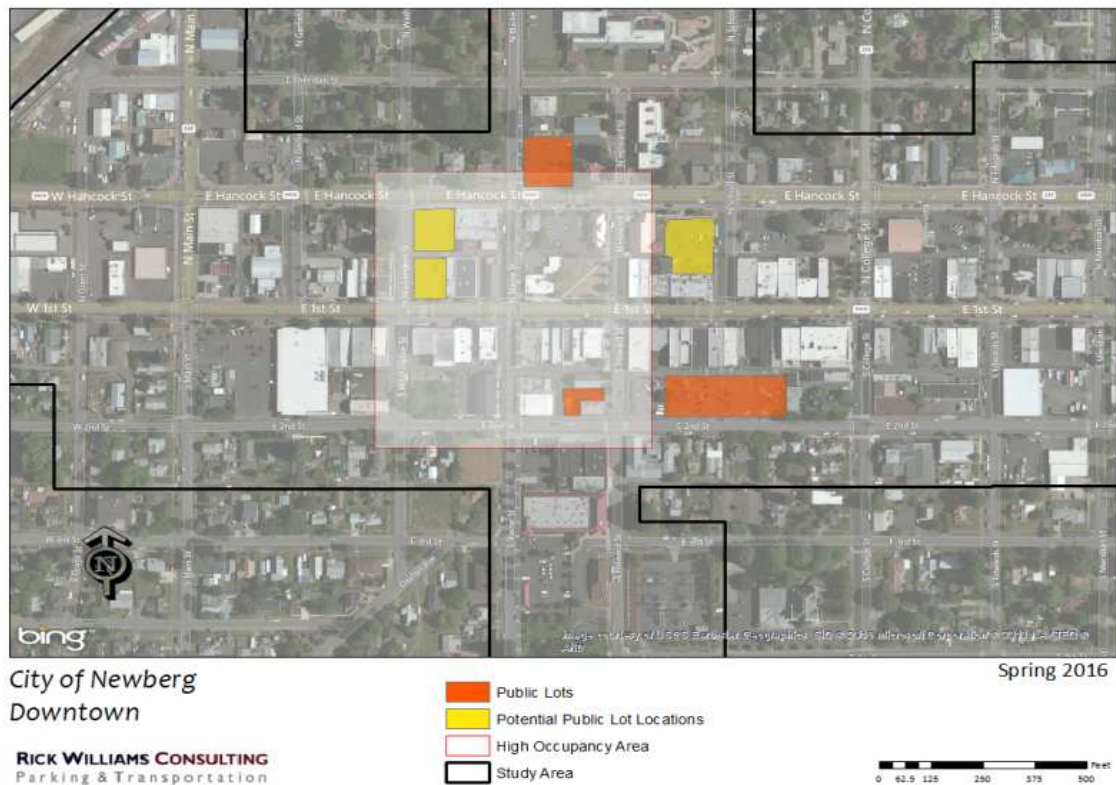
This is very much a process task, requiring research and conversations with City policy- and decision-makers and legal counsel, and discussion with a range of potentially affected stakeholders. For the purposes of this discussion, it is assumed that costs would be absorbed internally by the City.

STRATEGY 15: Identify a strategically located surface parking lot for lease or purchase as a long-term public parking asset.

Two of the four City-owned lots provide fairly convenient access to the downtown: one on the northeast corner of Blaine and Hancock, the second at the northeast corner of Howard and Second. However, neither is located between the two main streets of Hancock and First. Locating a public off-street facility between these corridors would increase visibility, provide convenient access for downtown users, and support the “park once” philosophy, which promotes walking rather than driving between downtown destinations.

Figure F identifies strategically positioned sites near the high-occupancy area of the downtown.¹⁰

Figure F
Potential Parking Opportunity Sites



A strategically positioned lot could, in the near-term, serve both customers and employees; transitioning to a visitor-only facility as parking demand continues to grow. When market factors are more favorable, the facility could expand capacity by adding parking decks, and be integrated into potential development and funding partnerships to support growth (see Strategy 14). Therefore, it is important that the proposed lot have a large enough footprint to allow for ramps, drive aisles, etc.

TIMELINE: Near- to Mid-term (0 – 24 months)

- Establish selection criteria that support City and community goals and provide flexibility for use of the site.
- Develop a list of potential sites for an additional off-street public parking facility.

¹⁰ In no way does the identification of these sites suggest that owners of the properties would be interested in selling or participating in a garage development project. They are only illustrated here as an example of how an identification process could begin, as a means to facilitate discussion of growing the existing parking supply and, possibly, informing a costing evaluation.

TIMELINE: Long-term (24 – 36+ months)

- Identify potential funding sources (Strategy 14).
- Narrow candidate sites based on approved criteria and consultations with potential developers.
- Begin conversations/negotiations with property owners of potential sites on the narrowed candidate list.
- Procure site through long-term lease or purchase.

Estimated Costs (STRATEGY 15)

This long-term strategy has potentially significant cost impacts, much of which will depend on the market value of land at the time of purchase.

G. SUMMARY

Newberg is on the cusp of reinventing its historic downtown and is likely to face new pressure on its parking supply. The strategies above represent a toolbox of methods with which to manage the parking-related challenges and barriers that come with a successful downtown Newberg.

This report recommends parking management strategies that directly address these issues through data analysis, observation, and stakeholder input. Strategies follow a logical order of implementation to achieve desired results, from near- to mid- to long-term, with estimated costs where appropriate. It is hoped that portions of this plan can be implemented as expediently as possible.

H. STRATEGY MATRIX

Table 3 (next page) summarizes the strategies recommended in **Section E**. This summary can be used as a concise outline of all recommendations and as a checklist of actions needing attention for a possible Downtown Parking Work Group.

Table 3: Summary of Recommendations

STRATEGY	Near-Term (0-12 months)	Mid-term (12 – 24 months)	Long-Term (24 – 36+ months)	Estimated Cost
1. Establish Guiding Principles for Parking	<ul style="list-style-type: none"> Establish and adopt Guiding Principles 			No additional costs beyond staff time to adopt or endorse.
2. Establish a Downtown Parking Work Group as a forum for addressing parking issues in the downtown.	<ul style="list-style-type: none"> Schedule work group meetings routinely to advocate, shepherd, track and communicate plan. Establish a draft parking “brand.” 	<ul style="list-style-type: none"> Help facilitate data collection efforts. Assess Plan progress. Provide input to City Council. Coordinate communications with the broader downtown business community. Determine and implement actions. 	<ul style="list-style-type: none"> Evolve into a formal advisory committee to City Council on downtown parking issues and meet on a more frequent (i.e., monthly) schedule. 	There should be no additional costs associated with this recommendation if it can be initiated as a volunteer effort, hosted by the City and/or in partnership with downtown business interests.
3. Amend code guidelines related to shared parking opportunities that could impede efficiencies for new development.	<ul style="list-style-type: none"> Examine changes to the code as described in the Opportunities and Constraints section of the Downtown Newberg Parking Existing Conditions Memorandum (see Appendix A). 			There should be no additional costs associated with this recommendation if it can be initiated as a staff led effort in consultation with the City Council.
4. Simplify on-street time stay allowances and reduce the number of “No-Limit” parking stalls.	<ul style="list-style-type: none"> Use 2016 inventory to identify No-Limit stalls that front visitor oriented businesses. Schedule to replace these stalls with 2-hour parking per Strategy 6 below. 			Costs included in work related to Strategy 6.

STRATEGY	Near-Term (0-12 months)	Mid-term (12 – 24 months)	Long-Term (24 – 36+ months)	Estimated Cost
5. Create a critical path to a new parking brand that can be utilized at all City-owned lots and shared supplies and in marketing & communications.	<ul style="list-style-type: none"> Engage a design firm to develop an attractive and recognizable “parking brand” for use by the City of Newberg at all of its public off-street facilities, and any shared use facility that offers visitor access. 		<ul style="list-style-type: none"> Deploy brand 	It is estimated that engaging a design consultant to carry out the tasks identified above would range from \$15,000 - \$20,000.
6. Upgrade on-street parking signage and striping	<ul style="list-style-type: none"> Replace/upgrade old signage. Repaint/repair curbs and curb markings. Stripe all on-street parking where parking is allowed. 			A budget of \$5,000 annually for on-street stripe upgrades and maintenance would accommodate nearly 35 City blocks. This budget is likely to be lower as routine maintenance is implemented over time. Individual street signs average \$150 - \$300 each.
7. Upgrade public lots to set a standard for design and presentation.	<ul style="list-style-type: none"> Upgrade the four public lots in the downtown core. 	<ul style="list-style-type: none"> Complete lot upgrades 		Not enough is known at this time relative to ownership, land costs, availability and/or other factors to estimate costs at this time.
8. Enhance the City’s “front door” by improving the appearance and quality of privately owned surface parking in the downtown.	<ul style="list-style-type: none"> Implement simple and low cost improvements to existing lots. This can include simple landscape improvements using planters and screening elements 	<ul style="list-style-type: none"> Explore/develop incentives to upgrade poor quality existing lots (urban renewal initiative, grants, public/private partnerships, etc.). Review and revise existing design standards for surface lots in the downtown that ensure a uniform foundation for quality of appearance. 		Costs associated with this strategy need to be further refined based on investments the City could make through public/private partnerships and existing resources.

STRATEGY	Near-Term (0-12 months)	Mid-term (12 – 24 months)	Long-Term (24 – 36+ months)	Estimated Cost
9. Create an east/west gateway communication system that is replicated throughout downtown.	<ul style="list-style-type: none"> • Sign research and design. • Determination of effective locations for signage. 	<ul style="list-style-type: none"> • Implement at gateways and coordination with Strategy 5. • Ensure integration of parking brand into all communicative parking signage. 		<p>Costs should be minimal if signage is installed on public land. However, not enough is known at this time by the consultant relative to ownership, land costs, availability and/or other factors to estimate costs at this time.</p>
10. Add bike parking at strategic locations to create connections between parking and the downtown.	<ul style="list-style-type: none"> • Identify on and off-street locations for bike racks, bike boxes, and bike corrals. • Add high-visibility bike parking throughout downtown, encouraging visitors to stop and shop 		<ul style="list-style-type: none"> • Consider using bike corrals or clusters in parking areas to maximize bike parking. 	<p>Not enough is known at this time by the consultant relative to the overall cost of a downtown gateway signage program.</p>
11. Identify off-street shared-use opportunities based on data from 2016 off-street occupancy study.	<ul style="list-style-type: none"> • Use data from the 2016 downtown parking study to identify facilities that could serve as reasonable shared use opportunity sites. • Based on the above, develop a short list of opportunity sites and identify owners. • Establish a target goal for the number of downtown employees to transition into opportunity sites. 	<ul style="list-style-type: none"> • Begin outreach to owners of private lots. • Negotiate shared use agreements. 	<ul style="list-style-type: none"> • Obtain agreements from downtown businesses to participate in the employee assignment program. • Implement program. 	<p>Costs of outreach are not known at this time, but could be minimized through coordinated efforts of existing staff and volunteers and/or partnerships between the Newberg Downtown Coalition to identify opportunity sites and engage the private sector.</p>

STRATEGY	Near-Term (0-12 months)	Mid-term (12 – 24 months)	Long-Term (24 – 36+ months)	Estimated Cost
<p>12. Develop a reasonable schedule of data collection to assess performance of the downtown parking supply, including on- and off-street inventory and occupancy and utilization analysis.</p>	<ul style="list-style-type: none"> • A baseline parking inventory of all on and off-street parking within the downtown has been completed in 2016. 	<ul style="list-style-type: none"> • Conduct routine turnover and occupancy surveys of the on and off-street facilities in downtown no less than every two years. • Replicate the 2016 RWC study boundary to have an ‘apples to apples’ data comparison. • Determine data collection routine schedule/timeline for implementation. • The Parking Work Group can use this data to inform ongoing decisions in an objective manner. 		<p>A turnover/occupancy study would range from \$25,000 - \$30,000 if conducted by a third party consultant.</p>
<p>13. Establish business-to-business outreach and communications on parking issues and planning.</p>	<ul style="list-style-type: none"> • Support outreach efforts of a Downtown Parking Work Group. • Work with the Newberg Downtown Coalition and City staff to participate in and support the Work Group in these efforts. 	<ul style="list-style-type: none"> • On-going outreach and communications with downtown stakeholders supported by sound data and targeted outcomes. 		<p>Key costs for outreach include materials development (e.g., brochures, flyers, etc.). It is estimated this could be adequately covered in the Newberg downtown for approximately \$2,500 annually.</p>
<p>14. Explore and develop funding options for maintaining the existing parking supply and funding future growth.</p>	<ul style="list-style-type: none"> • Evaluate the range of funding options outlined above. • Narrow to most feasible and beneficial. 		<ul style="list-style-type: none"> • Implement and pursue most promising strategies. 	<p>It is assumed that costs would be absorbed internally by the City.</p>

STRATEGY	Near-Term (0-12 months)	Mid-term (12 – 24 months)	Long-Term (24 – 36+ months)	Estimated Cost
<p>15. Identify strategically located surface parking lot for lease or purchase as a long-term public parking asset</p>	<ul style="list-style-type: none"> Establish selection criteria that are supportive of City and community goals and provide flexibility for use of the site Develop a list of potential sites for an additional off-street public parking facility. 		<ul style="list-style-type: none"> Identify potential funding sources. Narrow candidate sites based on approved criteria and consultations with potential developers. Begin conversations/ negotiations with property owners of potential sites on the narrowed candidate list. Procure site through long-term lease or purchase. 	<p>This long-term strategy has potentially significant cost impacts, much of which will be dependent on the present market value of land at the time of purchase.</p>

**ATTACHMENT A:
PARKING EXISTING CONDITIONS**

RICK WILLIAMS CONSULTING

Parking & Transportation

PO Box 12546

Portland, Oregon 97212

PH: 503-459-7638

MEMORANDUM

TO: City of Newberg, Oregon

FROM: Owen Ronchelli, RWC

Rick Williams, RWC

DATE: September 24, 2015

RE: *Downtown Newberg Parking Existing Conditions*

Policy Framework

The following section identifies and summarizes sections of the Newberg development code that deals specifically with automobile and bicycle parking and the guidelines of how parking is built and managed. The policy citations have been condensed for brevity and are presented for reference purposes only. Full policy language can be found in the city development code.

Chapter 15.440 - Off-Street Parking and Bicycle Parking

15.440.010 Required off-street parking.

A. Off-street parking shall be provided on the development site for all R-1, C-1, M-1, M-2 and M-3 zones. In all other zones, the required parking shall be on the development site or within 400 feet of the development site which the parking is required to serve. All required parking must be under the same ownership as the development site served except through special covenant agreements as approved by the city attorney, which bind the parking to the development site.

B. Off-street parking is not required in the C-3 district, except for:

1. Dwelling units meeting the requirements noted in NMC 15.305.020.
2. New development which is either immediately adjacent to a residential district or separated by nothing but an alley.

While the Newberg Development Code for C-3 zone (Downtown) generally does not require off-street parking for new commercial development, if off-street parking is built it must meet landscaping requirements, such as a 10 foot deep landscaped front yard, and 5 foot deep landscaped buffers along the property lines.



15.440.020 Parking area and service drive design.

- A. All public or private parking areas, parking spaces, or garages shall be designed, laid out and constructed in accordance with the minimum standards as set forth in NMC 15.440.070.
- B. Groups of three or more parking spaces, except those in conjunction with single-family or two-family dwellings on a single lot, shall be served by a service drive so that no backward movement or other maneuvering of a vehicle within a street, other than an alley, will be required.

15.440.030 Parking spaces required. Below is a condensed list of parking minimums by land use.

Use	Minimum Parking Spaces Required
Residential Types	
Dwelling, multifamily and multiple single-family dwellings on a single lot	
Studio or one-bedroom unit	1 per dwelling unit
Two-bedroom unit	1.5 per dwelling unit
Three- and four-bedroom unit	2 per dwelling unit
Five- or more bedroom unit	0.75 spaces per bedroom
<ul style="list-style-type: none"> • Unassigned spaces 	With > 10 spaces on a lot, at least an additional 15% of the required parking spaces must be provided as unassigned
<ul style="list-style-type: none"> • Visitor spaces 	If > 10 spaces on a lot, then it must provide at least 0.2 visitor spaces per dwelling unit.
<ul style="list-style-type: none"> • On-street parking credit 	On-street parking spaces may be counted toward the minimum for developments with > 10 spaces on a lot. The on-street spaces must be directly adjoining and on the same side of the street as the subject property.
<ul style="list-style-type: none"> • Available transit service 	At City’s discretion, affordable housing projects may reduce the required off-street parking by 10 percent if there is an adequate continuous pedestrian route no more than 1,500 feet in length from the development to transit service with an average of less than one hour headways during commuting periods.

Use	Minimum Parking Spaces Required
Commercial neighborhood district (C-1)	1 for each dwelling
Dwelling, single-family or two-family	2 for each dwelling unit on a single lot
Fraternalities, sororities, cooperatives and dormitories	1 for each three occupants for which sleeping facilities are provided
Hotels, motels, motor hotels, etc.	1 for each guest room
Special needs housing	1 space per 3 beds or actual parking needs as demonstrated through a parking analysis.
Institutional Types	
Churches, clubs, lodges	1 for every 4 fixed seats or every 8 feet of bench length or every 28 sq. ft. where no permanent seats or benches are maintained

Use	Minimum Parking Spaces Required
Continuing care retirement community	1 space per living unit
Day care facility	5 spaces per each 1,000 gross sq. ft.
Hospitals (including accessory retail wholly contained within a hospital building)	2 spaces for each 1,000 gross sq. ft.
Libraries, museums, art galleries	1 for each 250 sq. ft. of gross floor area
Medical/dental offices and laboratories	3.5 spaces for each 1,000 gross sq. ft.
Nursing homes, homes for the aged, group care homes, asylums, etc.	1 for each 3 beds
Schools	Colleges – “commuter” type, 1 for every full-time equivalent student (plus 1/2 of the requirements for accessory buildings)
Schools	Colleges – “resident” type, 1 for every 3 full-time equivalent students (plus 1/2 of the requirements for accessory buildings)
Schools	Elementary or junior high, 1-1/2 for each teaching station plus 4 for every classroom, or 1 for every 42 sq. ft. of seating area where there are no fixed seats in an auditorium or assembly area
Schools	High schools, 1-1/2 for each teaching station, plus 8 for every classroom, or 1 for every 28 sq. ft. of seating area where there are no fixed seats in an auditorium or assembly area
Schools	Colleges – commercial or business, 1 for every 3 classroom seats (plus 1/2 of the requirements for accessory buildings)
Welfare or correctional institutions	1 for each 5 beds
Commercial Types	
Barber and beauty shops	1 for each 75 sq. ft. of gross floor area
Bowling alleys	6 for each bowling lane
Establishments or enterprises of a recreational or an entertainment nature:	
Establishments for the sale and consumption on the premises of food and beverages with a drive-up window	1 for each 75 sq. ft. of gross floor area
Establishments for the sale and consumption on the premises of food and beverages without a drive-up window	1 for each 100 sq. ft. of gross floor area
Participating type, e.g., skating rinks, dance halls	1 for each 75 sq. ft. of gross floor area
Spectator type, e.g., auditoriums, assembly halls, theaters, stadiums, places of public assembly	1 parking space for each 4 seats
Office buildings, business and professional offices	1 for every 400 sq. ft. of gross floor area
Pharmacies	1 for each 150 sq. ft. of gross floor area
Retail establishments, except as otherwise specified herein	1 for each 300 sq. ft. of gross floor area
Retail stores handling bulky merchandise, household furniture, or appliance repair	1 for each 600 sq. ft. of gross floor area

15.440.040 Parking requirements for uses not specified.

The parking space requirements for buildings and uses not set forth herein shall be determined by the director through a Type I procedure. Such determination shall be based upon the requirements for the most comparable building or use specified herein.

15.440.050 Common facilities for mixed uses.

- A. In the case of mixed uses, the total requirements for off-street parking spaces shall be the sum of the requirements for the various uses. Off-street parking facilities for one use shall not be considered as providing parking facilities for any other use except as provided below.
- B. Joint Uses of Parking Facilities. The director may, upon application, authorize the joint use of parking facilities required by said uses and any other parking facility; provided, that:
 - 1. The applicant shows that there is no substantial conflict in the principal operating hours of the building or use for which the joint use of parking facilities is proposed.
 - 2. The parking facility for which joint use is proposed is no further than 400 feet from the building or use required to have provided parking.
 - 3. The parties concerned in the joint use of off-street parking facilities shall evidence agreement for such joint use by a legal instrument approved by the city attorney as to form and content.
- C. Commercial establishments within 200 feet of a commercial public parking lot may reduce the required number of parking spaces by 50 percent.

15.440.060 Parking area and service drive improvements.

All public or private parking areas, outdoor vehicle sales areas, and service drives shall be improved according to the following:

- A. All parking areas and service drives shall have surfacing of asphaltic concrete or portland cement concrete or other hard surfacing such as brick or concrete pavers.
- C. All parking areas, except those required in conjunction with a single-family or two-family dwelling, shall provide a substantial bumper which will prevent cars from encroachment on abutting private and public property.
- D. All parking areas, including service drives, except those required in conjunction with single-family or two-family dwellings, shall be screened in accordance with NMC 15.420.010(B).
- E. Any lights provided to illuminate any public or private parking area or vehicle sales area shall be so arranged as to reflect the light away from any abutting or adjacent residential district.

Table of Dimensions (In Feet)
Stall Width with Corresponding Aisle Width

Stall Width = X	9	9.5	10	10.5	11	12
Aisle Width = Y	24	24	22	22	20	20

Diagram 2

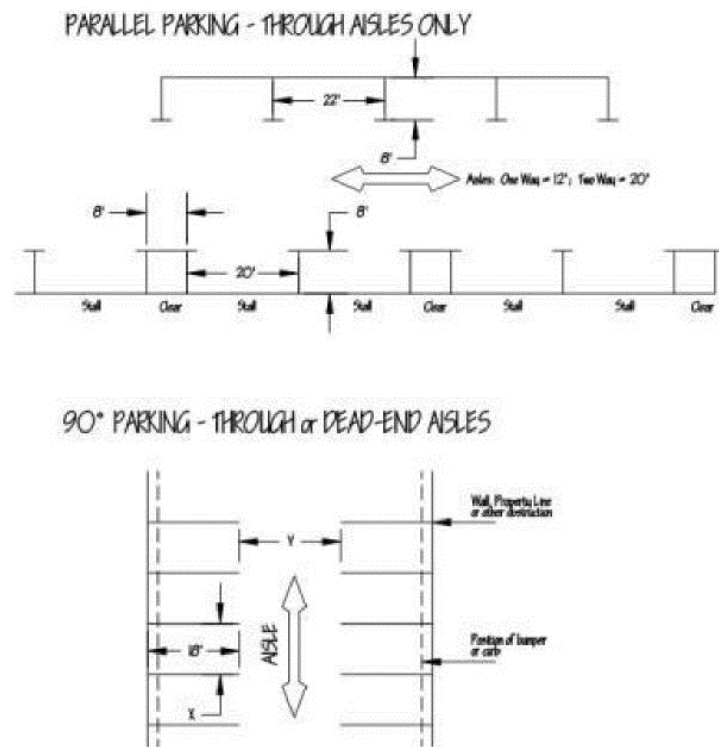
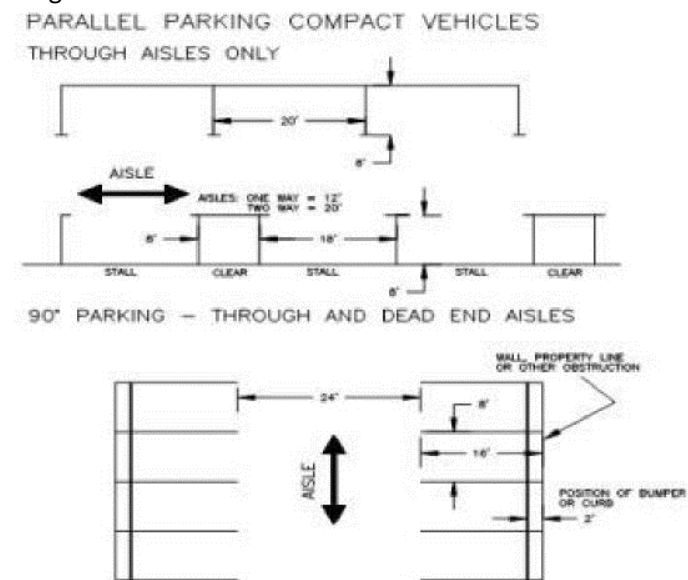


Diagram 3



Notes:

1. Bumpers must be installed where paved areas abut street right-of-way (except at driveways).
2. No stalls shall be such that cars must back over the property line to enter or leave stall.
3. Stalls must be clearly marked and the markings must be maintained in good condition.
4. The sketches show typical situations to illustrate the required standards. For further information or advice, contact the planning department.

Article II. Bicycle Parking

15.440.090 Purpose.

Cycling is a healthy activity for travel and recreation. In addition, by maximizing bicycle travel, the community can reduce negative effects of automobile travel, such as congestion and pollution. To maximize bicycle travel, developments must provide effective support facilities. At a minimum, developments need to provide a secure place for employees, customers, and residents to park their bicycles.

15.440.100 Facility requirements.

Bicycle parking facilities shall be provided for the uses shown in the following table. Fractional space requirements shall be rounded up to the next whole number.

Use	Minimum Number of Bicycle Parking Spaces Required
New multiple dwellings, including additions creating additional dwelling units	One bicycle parking space for every four dwelling units
New commercial, industrial, office, and institutional developments, including additions that total 4,000 square feet or more	One bicycle parking space for every 10,000 square feet of gross floor area. In C-4 districts, two bicycle parking spaces, or one per 5,000 square feet of building area, must be provided, whichever is greater
Transit transfer stations and park and ride lots	One bicycle parking space for every 20 vehicle parking spaces
Parks	Two bicycle parking spaces within 50 feet of each developed play-ground, ball field, or shelter

15.440.110 Design.

- A. Bicycle parking facilities shall consist of one or more of the following:
 - 1. A firmly secured loop, bar, rack, or similar facility that accommodates locking the bicycle frame and both wheels using a cable or U-shaped lock.
 - 2. An enclosed locker.
 - 3. A designated area within the ground floor of a building, garage, or storage area. Such area shall be clearly designated for bicycle parking.
 - 4. Other facility designs approved by the director.
- B. All bicycle parking spaces shall be at least six feet long and two and one-half feet wide. Spaces shall not obstruct pedestrian travel.
- C. All spaces shall be located within 50 feet of a building entrance of the development.
- D. Required bicycle parking facilities may be located in the public right-of-way adjacent to a development subject to approval of the authority responsible for maintenance of that right-of-

way.

15.445.165

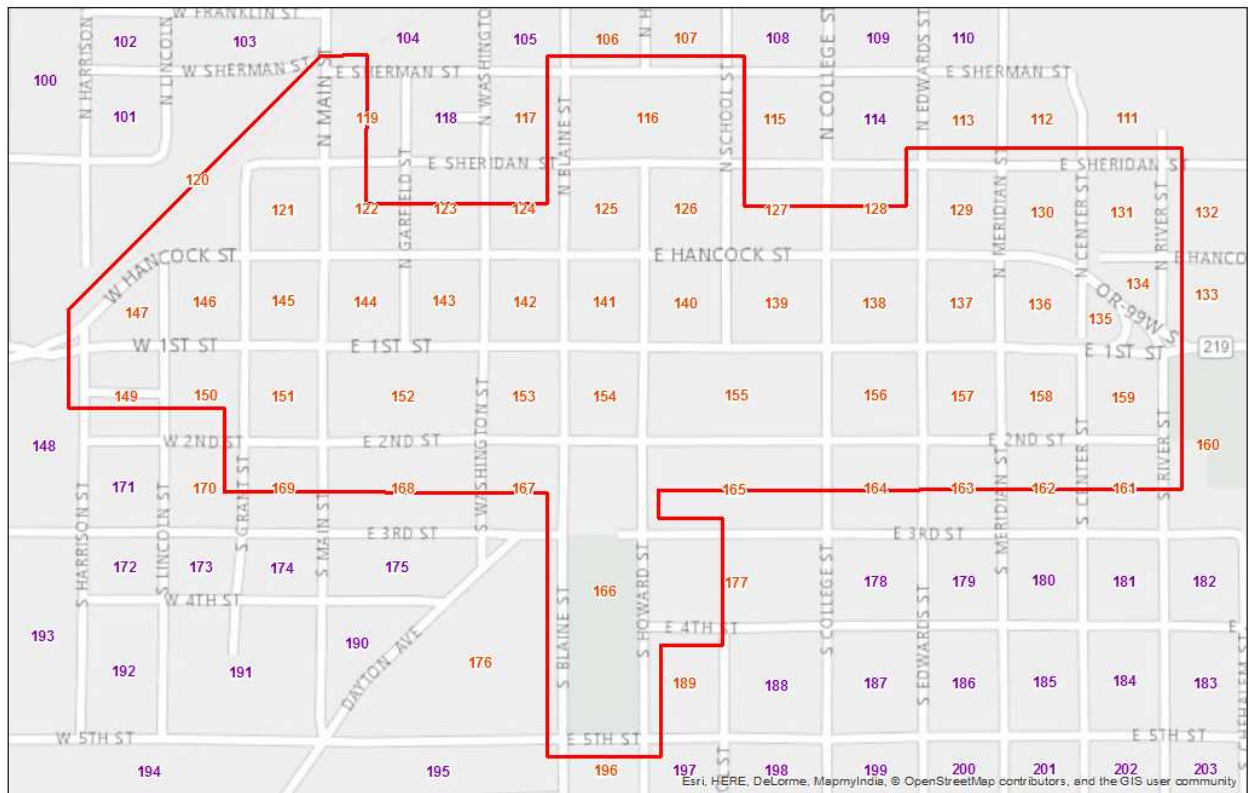
C. Parking and Storage of recreational vehicles – no recreational vehicle can be parked on-street for more than 48 hours.

Existing Conditions Summary

Parking Inventory Methodology

The consultant team has assembled a complete inventory of all parking located within the study area. The inventory was initiated using a combination of aerial maps and Google Maps Streetview imagery. This allowed for preliminary identification of parking sites and their special relationship to specific land uses. Two draft Excel databases were developed from this assessment, one for the on-street and one for the off-street system. The on-street database identifies all curbside parking within the study area by block face and by stall type (i.e., 15-Minute, 2-Hour, Handicap, etc.). To accomplish this each block in the study area was assigned a unique block number (see Figure A), each block face was assigned a letter (e.g., A, B, C, D), and finally each stall was assigned an ascending number based on its location on the block face working from left to right in a clockwise fashion around the block. This approach allows the consultant team to precisely categorize stalls geographically, numerically, and characteristically (e.g., time restriction, striping, angled or parallel, etc.).

Figure A: Downtown Newberg Study Area with Assigned Block Numbers



City of Newberg Downtown
 Parking Study Area
 Newberg, Oregon
RIK WILLIAMS CONSULTING
 Parking & Transportation

September 2015

- Updated Parking Study Boundary
- ### Blocks Inside Study Boundary
- ### Blocks Outside Study Boundary



The off-street database was populated with information derived from multiple on-site inspections by consultant team surveyors. Inspections included visits to sites, physical counts of parking stalls, supportive research on property (site) ownership and type of parking identified (e.g., retail, office, residential, etc.). Where specific stall type designations were found (e.g., visitor, employee, reserved, etc.), these were noted and added to the database.¹ Table 1 provides an accounting of Newberg’s on and off-street parking system within the downtown study area.

Table 1: 2015 Newberg On and Off-Street Parking Inventory

Downtown Newberg Parking Inventory On-Street and Off-Street		
Stalls by Type	Total Stalls	% of Total Stalls
10 Minutes	3	<1%
15 Minutes	14	1.5%
30 Minutes	1	<1%
1 Hour	6	<1%
2 Hours	267	28.3%
No Limit	640	67.8%
Handicap	9	1.0%
Theater	3	<1%
Reserved	1	<1%
<i>Subtotal</i>	944	100%
Total On-Street Stalls	944	45.1%
Total Off-Street Stalls	1,146	54.8%
Total Stalls	2,090	100%

The combined downtown parking system for Newberg includes 2,090 stalls, nearly evenly split between on-street, 944 stalls (45% of all spaces) and off-street 1,146 stalls (55% of all spaces) options. The on-street system is comprised of 9 different stall types, the majority (68%) of which are unregulated, No Limit, with no time restriction. An additional 28% of stalls are 2-Hour stalls, primarily located along First Street and the south side of Hancock Street. The remainder of stall types are a mix of 10-Minute (3 stalls), 15-Minute (14 stalls), 30-Minute (1 stall), 1-Hour (6 stalls), Handicap (9 stalls), Theater (3 stalls), and Reserved (1 stall). Table 2 provides an aggregated list of off-street parking lots by their observed use type.

¹ It should be noted that very few stalls within the study area are designated for specific uses/users.

Table 2: Downtown Newberg Off-Street Parking Inventory by Use Type

Use Type	Number of Lots	Stalls	% of Total
Auto	4	36	3%
Bank	3	48	4%
Church	2	18	2%
Civic	5	121	11%
Institution	1	32	3%
Medical	2	24	2%
Office	13	146	13%
Public	3	124	11%
Residential	3	33	3%
Restaurant	10	128	11%
Retail	20	279	24%
Service	14	98	9%
Unknown	5	59	5%
Total	85	1,146	100%

The table above shows a thematic interpretation of how parking is allocated based on observed land use types. The breakout is ‘thematic’ due in part because it was created using the observations made by surveyor inventory crews and the data has not been verified by City staff or downtown stakeholders. While the table is thematic in nature it reveals a broad array of land uses present in the downtown with a dedicated parking supply. Nearly a quarter (24%) of off-street parking is dedicated to retail uses, 13% of parking serves office uses, and 11% of parking is dedicated to civic, restaurant use and public (general) uses.

A complete list of off-street lots and the number of stalls associated with that lot can be found in Table 3, below. Lots were identified² by either posted signage or by an adjacent or accessory use. Corresponding Lot numbers and their stall totals can be found on Figure B.

² Lot descriptions may not accurately describe the true owner or operator of the lot, but is used as an ‘in-the-field’ identification system for surveyors when they will be out collecting occupancy counts when the utilization study takes place.

Figure B: 2015 Downtown Newberg Off-Street Parking Inventory

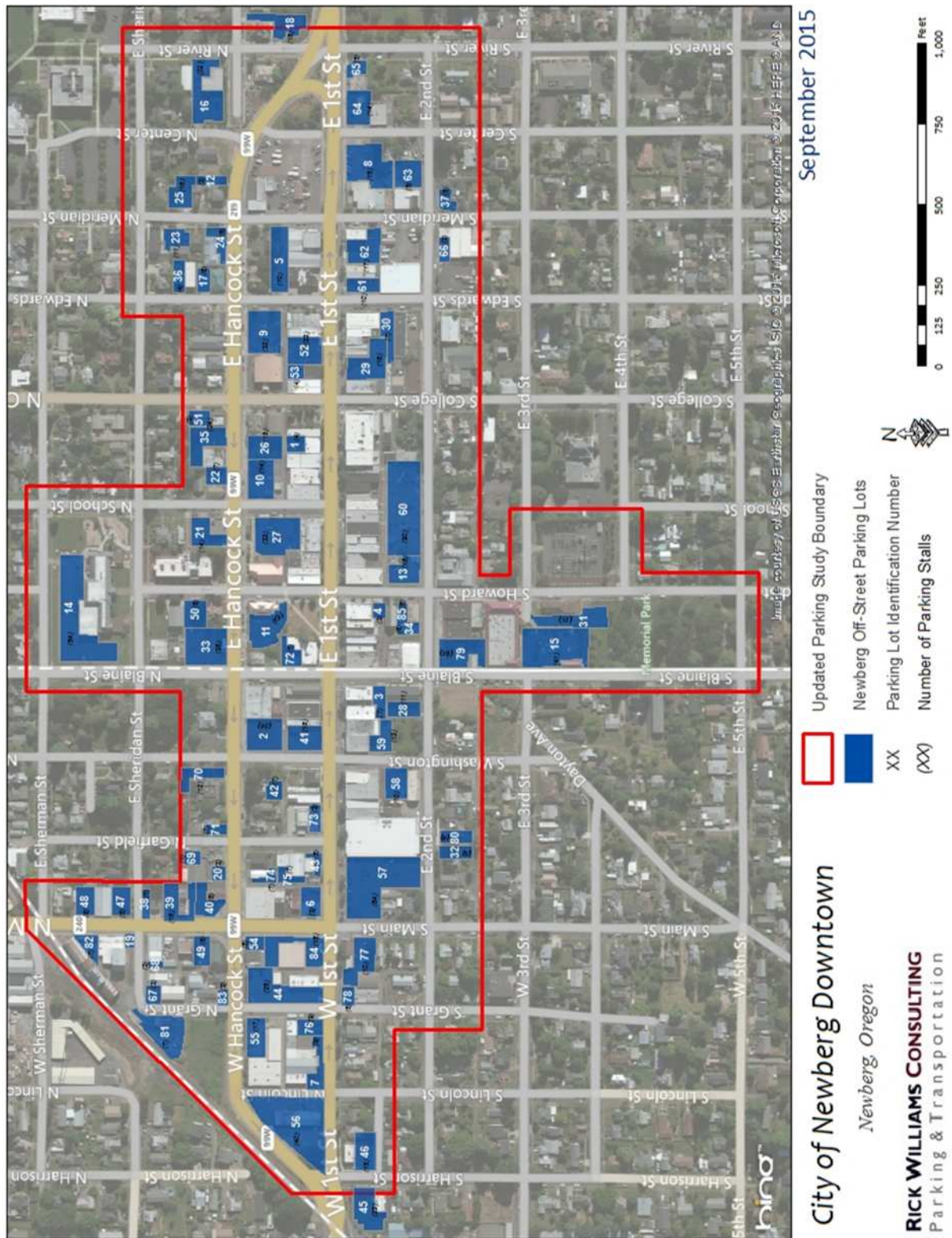


Table 3: Downtown Newberg Individual Off-Street Parking Inventory by Lot

Lots	Description	Stalls	Use Type	Lot Type
1	Gonzales Panaderia & Taqueria (Alley)	4	Restaurant	Alley
2	Roped off, not striped	24	Unknown	Alley
3	Alley Parking- Tenant/Customer Parking	7	Retail	Alley
4	Alleyway, behind City Hall	3	Civic	Alley
5	True Form Collision Repair	10	Auto	Private
6	Leif's Auto Collision/ Gas Station	3	Auto	Private
7	Newberg Tire and Auto Repair	8	Auto	Private
8	Newberg Body & Paint	15	Auto	Private
9	First Federal Bank	22	Bank	Private
10	Wells Fargo + Drive Thru	14	Bank	Private
11	First Community Credit Union	12	Bank	Private
12	Church Parking	3	Church	Private
13	Newberg World of Faith Center	15	Church/Retail	Private
14	Chehalem Cultural Center	54	Civic	Public
15	Secured Public Safety Vehicles	41	Civic	Private
16	Campus Residential Parking	32	Institution	Private
17	Dr. Brecke Office - Dental	6	Medical	Private
18	River Street Dental	18	Medical	Private
19	Rita Wolff Oregon Broker	3	Office	Private
20	Valley Realty Professionals LLC	2	Office	Private
21	First American Title	14	Office	Private
22	Newberg Travel & Cruise	7	Office	Private
23	Meridian St. Building	11	Office	Private
24	State Farm	6	Office	Private
25	Meridian St. House/Social Work	16	Office	Private
26	Chehalem Valley Chamber, Personal Farmer, Worxplace	15	Office	Private
27	The Newberg Graphic	33	Office	Private
28	Joshua Suites Professional Building	11	Office	Private
29	Private - Law Office	16	Office	Private
30	Unknown	7	Office	Private
31	Public Safety Bldg/Thrift Shop/Park	17	Civic	Public
32	Income Tax - Thomas L. Deines LLC (FOR LEASE)	5	Office	Private
33	Public Parking	28	Public	Public
34	6 City Vehicles	6	Civic	Public
85	6 General Parking	6	Public	Public
35	Apartments 611	24	Residential	Private
36	Unknown	4	Residential	Private
37	Apartments	5	Residential	Private
38	Nara Teriyaki	7	Restaurant	Private

39	Jem 100 Ice Cream	16	Restaurant	Private
40	Papa Murphy's	8	Restaurant	Private
41	Ixtapa Restaurant	18	Restaurant	Private
42	Recipe	7	Restaurant	Private
43	Jac's Deli and Frozen Custard	5	Restaurant	Private
44	Pasquale's Italian Restaurant	25	Restaurant	Private
45	Dairy Queen (CLOSED)	23	Restaurant	Private
46	Subway	15	Restaurant	Private
47	Anam Cara Cellars	8	Retail	Private
48	Back side of Anam Cara Cellars	8	Retail	Private
49	Rays Produce	8	Retail	Private
50	Wine Country Antiques	8	Retail	Private
51	Lucky Finds Thrift Store	9	Retail	Private
52	Mixed retail (Dominos)	23	Retail	Private
53	Ken & Daughter Jewelers	4	Retail	Private
54	Quick Stop Market	6	Retail	Private
55	Terry's Crush Cellar	17	Retail	Private
56	American Classic and Hot Rods	40	Retail	Private
57	Thriftway	64	Retail	Private
58	Chehalem Sign Company	10	Retail	Private
59	Pitter Patter	13	Retail	Private
60	Multi-tenant retail	90	Public	Public
61	Unknown	10	Retail	Private
62	American Family Insurance	17	Retail	Private
63	Delano Supply	5	Retail	Private
64	Chehalem Tasting Room	14	Retail	Private
65	Newberg Food Mart	5	Retail	Private
66	Mr. Rooter	3	Retail	Private
67	Newberg steel	3	Service	Private
68	First Street Yoga	3	Service	Private
69	Specialty Contracting Glass and Door	1	Service	Private
70	Dr. Robert C. Wilde, D.M.D. General Dentistry	12	Service	Private
71	Trinity Hair Design	7	Service	Private
72	Post Office	7	Service	Private
73	Leather Gas Station	3	Service	Private
74	Newberg Family Chiropractic (Alleyway Parking)	7	Service	Private
75	Alleyway Parking (for Leifs repairs)	7	Service	Private
76	1st Street Laundromat	9	Service	Private
77	Jay's Custom Fabrication	10	Service	Private
78	Studio 601 Hair Design	6	Service	Private

79	Newberg Fire	19	Service	Private
80	Strong Hands Massage Therapy	4	Service	Private
81	Gravel Lot CONSTRUCTION	7	Unknown	Private
82	Habitat for Humanity Restore (CLOSED) (BLOCKED OFF)	7	Unknown	Private
83	111 N Grant St or N Hancock St	3	Unknown	Private
84	FOR LEASE	18	Unknown	Private
	Total (85 inventoried sites)	1,146		

Opportunities and Constraints



Downtown Newberg is a quintessential Main Street town with the majority of its retail and restaurant business focused on First Street (and Hancock). First provides for a pleasant pedestrian experience with its scarcity of off-street parking lots and zero lot line buildings fronting the sidewalks. Hancock and Second Streets are secondary retail streets with more punctuated building frontages interspersed with surface parking lots. The on-street parking on First Street and perpendicular streets are nicely formatted with individual stalls delineated with pavement striping, which is a 'customer-friendly' treatment. In general, on-street parking signage is clear to the user, but the system could benefit from design standards for how the frequency of signage is deployed in the right-of-way.

Opportunities

Parking activity in the downtown at first glance appears brisk particularly on-street, a downtown visitor's first choice in parking, while in general the off-street system has much greater stall availability.

- Consequently, the off-street lots, in cooperation with willing property owners, present an opportunity for additional shared use supply. For example, there are at least two banks in the downtown that are closed on weekends that could provide additional visitor (or employee) parking with proper signage.
- Another opportunity is the availability of select developable parcels in the study zone, which could provide for a branded district parking facility.

Challenges

- A potential challenge going forward that may hinder the ability of using existing surface parking lots as shared use facilities is the accessory designation and conditions placed on mixed (or shared) uses outlined in 15.440.050(A/B) of the development code. If possible, however, this condition may not apply to existing parking uses in the C-3 zone.
- For developers choosing to build off-street parking in the C-3 zone, the City may want to consider substituting urban design treatments for surface lots in-lieu of the existing landscaping/coverage requirements. 'Urban fence' or similar treatments could be used to create

visual separation of parking, establish clean, discernable edges, and help maximize parking capacity while providing an urban aesthetic to district.

**ATTACHMENT B:
PARKING SUMMARY REPORT**

CITY OF NEWBERG, OREGON

**2016 City of Newberg
Summary of Parking Utilization**

DATA SUMMARY REPORT

Prepared for:
City of Newberg
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MAY 2016

**2016 City of Newberg
Summary of Parking Utilization**

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ATTACHMENT A

Parking Study

Newberg Inventory Analysis – Existing Conditions

I. INTRODUCTION

The purpose of this 2016 Parking Summary Report is to derive a comprehensive and detailed understanding of actual use dynamics and access characteristics associated with parking in downtown Newberg. Metrics related to occupancy, turnover, duration of stay, and hourly patterns of activity represent industry best practices for evaluating both on and off-street parking systems. This data can assist the City in near-term decision-making on existing parking, in understanding where parking constraints and surpluses exist, and in determining whether factors such as abuse of time limits adversely affect access. The data will also aid in long-term planning for parking relative to future development,.

II. EXECUTIVE SUMMARY –2016 KEY FINDINGS

Key findings from the 2016 data collection effort and analysis, as well as from the comparative analysis, are presented here. Comprehensive documentation and data supporting these findings are found in Sections VI and VII below.

A. 2016 On-Street Parking

- ✓ The format of on-street parking favors long-term stays—nearly 70% of all parking is No Limit. This is a very high percentage of the on-street system dedicated to long-term use, particularly if higher visitor activity is desired and efforts to grow ground-level businesses are pursued.
- ✓ The peak hour is between 12:00 and 1:00 PM, when stalls are 47.6% occupied. At this hour, 460 on-street stalls are occupied, leaving 500 stalls available in the study area.
- ✓ The average time stay for all on-street parkers is 2 hours 50 minutes.
- ✓ On-street turnover (3.54) falls below the standard (5.0) for a parking system designed to attract and support high activity.
- ✓ Violation rates are high (23%), though low occupancies indicate that at this time users are not being denied access in a manner that would require greater enforcement.
- ✓ Parking is readily available on-street throughout the day.

B. 2016 Off-Street Parking

- ✓ The overall occupancy of the off-street system is 47.3% at the peak hour, which occurs between 11:00 AM and 12:00 PM.
- ✓ The combined off-street system is underutilized, with up to 604 empty stalls during the peak hour (extrapolated).

- ✓ The majority of off-street parking is private: 81 of 85 lots, comprising 1,016 stalls and representing 89% of all off-street parking. Greater and more efficient use of the off-street system will require conversation and partnerships with owners of private lots.

III. INVENTORY ANALYSIS

Elements of the data collection effort and analysis included:

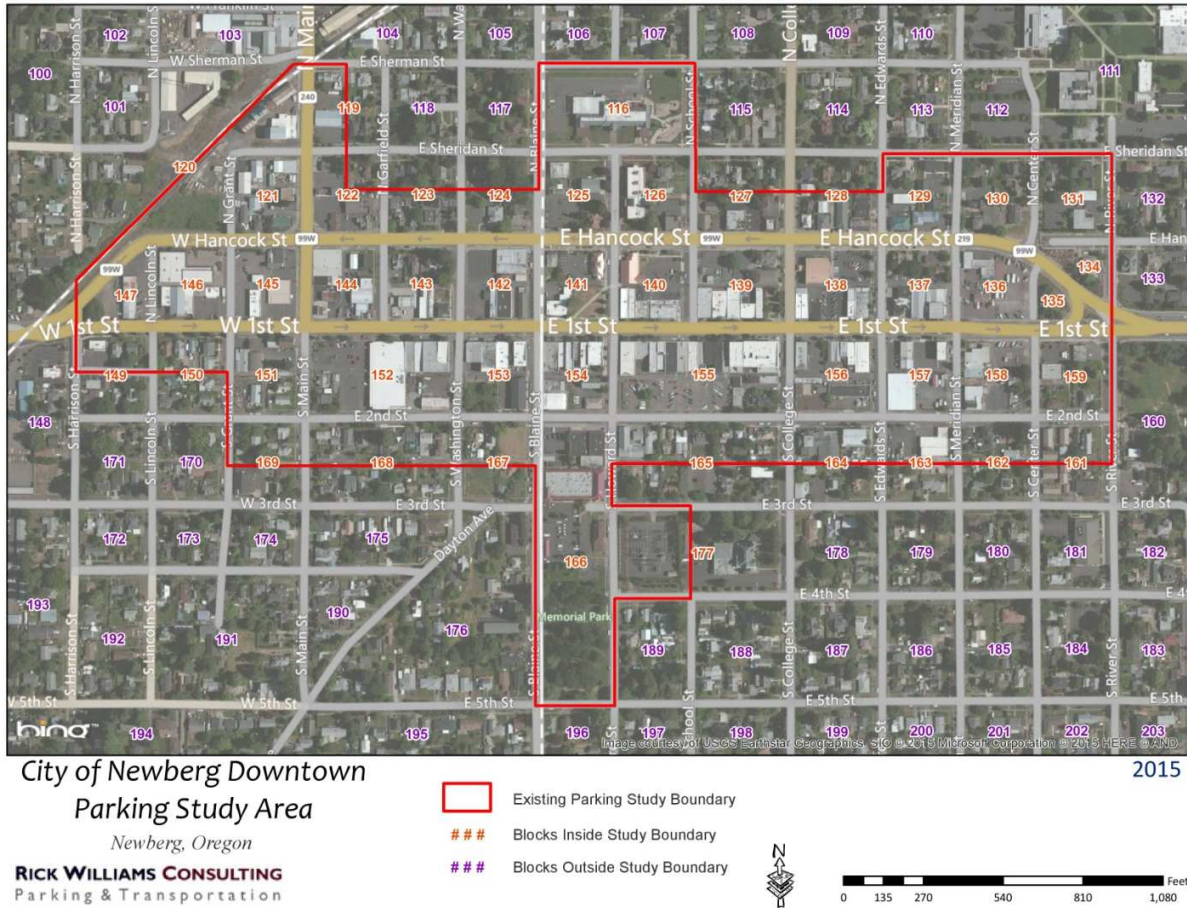
- (1) Development of a data template for all on- and off-street parking in the study area, denoting stalls by time-stay type where applicable.
- (2) A complete survey of on- and off-street parking use on a "typical day"—Wednesday, April 13, 2016¹.
- (3) Analysis of parking utilization and turnover that included:
 - a. Quantification of the parking inventory for the entire study area.
 - b. Hourly occupancy counts from 8:00 AM to 6:00 PM for the on- and off-street inventory.
 - c. Parking turnover analysis (on-street).
 - d. Parking duration-of-stay analysis (on-street).
- (4) Identification of surpluses and constraints within the parking supply.

IV. STUDY AREA

The parking inventory study area was determined during the initial project scoping process by the City of Newberg and the consultant team. It is generally bounded by S Harrison Street on the west, E 2nd Street on the south, E Sherman Street on the north and S River Street on the east. The inclusion of Memorial Park extends the southern boundary to E 5th Street. **Figure A** (next page) illustrates the study area.

¹ This date was chosen in consultation with the City of Newberg.

Figure A
Newberg Parking Study Area



The study area is in Newberg’s Downtown and is bisected by the heavily traveled 99W couplet (1st Street and E Hancock Street). With Phase 1 of the Newberg-Dundee Bypass expected to open in late 2017, congestion along this corridor will ease, creating an opportunity for the City of Newberg to reexamine its historical and commercial center.

V. METHODOLOGY

An inventory of all public parking in the study area was taken in advance of the survey. On-street stalls were identified by type (i.e., time or use restriction), block number, and block face. Off-street lots were identified by block location, number of stalls, ownership (public or private), and assumed manner of use. The resulting inventory comprised 2,106 parking stalls: 960 on-street and 1,146 off-street in 85 lots. This is further detailed in **Section VI**.

A. On-Street Data Collection

The survey involved hourly counts of occupied on-street parking stalls in the study area. Surveyors recorded the license plate numbers of parked vehicles each hour from 8:00 AM to 6:00 PM. All 960 on-street stalls were surveyed.

The survey took place on Wednesday, April 13th, 2016. The survey day was selected in consultation with the City of Newberg to represent a typical downtown weekday. The day was sunny, dry, and cool, with temperatures in the low to mid-60s).

B. Off-street Data Collection

Off-street facilities were surveyed on the same day, Wednesday, April 13th, 2016. A sample of 27 lots totaling 579 stalls was selected for data collection. This sample represents 50.5% of all off-street parking in the study area and accurately reflects the overall system in terms of type, size, and location. The distribution of the sample set is detailed in **Table 2** (page 6) below.

Occupancy counts were conducted at each lot every hour between 8:00 AM and 6:00 PM; unlike the on-street survey, however, license plate numbers were not recorded.

VI. FORMAT OF THE PARKING SUPPLY - 2016

The study area includes a total of 2,106 parking stalls, of which 960 are on-street, comprising 46% of the total parking supply. Off-street parking comprises 1,146 stalls across 85 lots and represents 54% of all parking. Parking in the study area is primarily free both on-street and off.

Table 1 presents an inventory of all parking surveyed in the 2016 Newberg Study Area.

**Table 1
2016 Parking Inventory – Newberg**

Downtown Newberg Inventory – On-Street and Off-Street		
Stalls by Type	Total Stalls	% of Total On-street Stalls
10 minutes	3	< 1%
15 minutes	14	1.5%
30 minutes	1	< 1%
1 hour	6	< 1%
2 hours	269	28.0%
No Limit	654	68.1%

Accessible (ADA)	9	< 1%
Theater Only	3	< 1%
Reserved	1	< 1%
On-Street Supply	960	46%*
Off-Street Supply (85 sites)	1,146	54%*
Total (All On and Off-Street)	2,106	100%

* Percentage distribution of on and off-street stalls as portion of total study area inventory.

A. On-Street Parking Time Stay Format

As **Table 1** indicates, on-street parking in this area has a mix of time stay options, comprised of nine categories ranging from 10 minutes to No Limit. Key elements of the on-street time stay format are:

- A majority of stalls do not have a designated time stay, referred to here as No Limit. Of the 960 total stalls, 654 (68.1%) are No Limit. This is a very high percentage of the on-street system dedicated to long-term use, particularly if higher visitor activity is desired. Stalls with stays of one or two hours, generally more associated with visitor use, make up approximately 28% of the on-street supply, with six 1-hour stalls (< 1%) and 269 2-hour stalls (28%).
- The remainder of the on-street supply includes 10-, 15- and 30-minute stalls that combine for slightly less than 2% of the supply.
- Special use parking, including Accessible (ADA), Theater Only, and Reserved, totals 13 stalls (slightly more than 1%).

With the large number of No Limit stalls, the current format favors long-term parking. While overall occupancy levels are relatively low at present (see **Section VII**), reformatting time limits to include more short-term parking should be considered to encourage retail development.

B. Off-Street Parking Format

As indicated in **Table 1**, off-street parking in the study area is distributed across 85 sites totaling 1,146 stalls. A listing of each individual site is provided in **Attachment A**.

To better understand their purpose, lots were sorted by their typical manner of use. **Table 2** identifies all lots by use type, and indicates the number of lots of that type, the combined number of stalls per type, and the percentage of total stalls that represents. This is summarized on the left half of the table. The table also provides a glimpse at the 27 lots that were sampled during the data collection effort. This is summarized on the right half of the table.

Table 2
Off-street Inventory - By Use Type

Use Type	Number of Lots Inventoried	Stalls	% of Total	Number of Lots Surveyed	Stalls	% of Total
Auto	4	36	3%	0	0	0%
Bank	3	48	4%	2	36	3.1%
Church	2	18	2%	1	15	1.3%
Civic	2	95	8%	1	54	4.7%
Institution	1	32	3%	1	32	2.8%
Medical	2	24	2%	1	18	1.6%
Office	14	163	14%	4	52	4.5%
Public	4	131	11%	4	130	11.3%
Residential	4	36	3%	0	0	0%
Restaurant	10	128	11%	2	43	3.8%
Retail	20	279	24%	7	135	11.8%
Service	14	98	9%	3	40	3.5%
Unknown	5	59	5%	1	24	2.1%
Total	85	1,146	100%	27	579	50.5%

Key elements of the off-street system are:

- The majority of off-street parking is private: 81 of 85 lots, comprising 1,016 stalls and representing 89% of all off-street parking.
- Parking for retail uses represents the largest portion of off-street parking at 24%, with 279 stalls on 20 lots. This is followed by parking for office uses at 14%, with 163 stalls on 14 lots.
- Publicly-owned parking represents 11% of the off-street supply, with 130 stalls on four lots.
- The current balance of private and public parking is not unusual for downtowns, but does mean that shared use agreements can be more complex, involving negotiations with individual owners of private lots.

VII. CHARACTERISTICS OF THE 2016 PARKING SUPPLY

A. On-Street Parking Summary

During the survey day of April 13, 2016, peak hour for the on-street inventory was from 12:00 to 1:00 PM. During this hour, just under half (47.6%) of the stalls in the study area were occupied. A total of 500 stalls remained empty.

Table 3 below summarizes occupancies and peak hours by stall type, the number of stalls available at the peak hour, average length of stay, and rate of violation. **Figure B** (page 8) illustrates on-street occupancies for each hour of the 10-hour survey day.

Table 3
2016 Newberg On-Street Parking Summary by Time Stay

2016 Downtown Newberg On-Street Parking Utilization						
Type of Stall	# of Stalls	Peak Hour	Peak Occupancy	Stalls Available	Average Length of Stay	Violation Rate
On-Street Peak	960	12:00 – 1:00 PM²	47.6%	500	2 hr/ 50 min	23.0%
10 minutes	3	11:00 AM – 1:00 PM	66.7%	1	4 hr/ 30 min	100.0%
15 minutes	14	9:00 – 10:00 AM 12:00 – 1:00 PM	50.0%	7	1 hr/ 32 min	5.4%
30 minutes	1	9:00 – 10:00 AM 12:00 – 1:00 PM 3:00 – 4:00 PM	100.0%	0	N/A	N/A
1-hour	6	10:00 AM – 12:00 PM	100.0%	0	3 hr/ 32 min	61.5%
2-hours	269	12:00 – 1:00 PM	70.3%	80	2 hr/ 8 min	23.1%
No Limit	654	11:00 AM – 12:00 PM	38.8%	394	3 hr/ 43 min	N/A
Handicapped	9	1:00 – 2:00 PM	33.3%	6	1 hr/ 26 min	N/A
Theater Only	3	1:00 – 3:00 PM	100.0%	0	1 hr/ 50 min	N/A
Reserved	1	10:00 – 11:00 AM 1:00 – 2:00 PM 3:00 – 4:00 PM	100.0%	0	1 hr/ 0 min	N/A

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

- The peak hour for all on-street parking is from noon to 1:00 PM. During this hour, 460 stalls (47.6% of the supply) are occupied; leaving 500 stalls empty in the study area.
- The average length of stay for all on-street parkers is 2 hours 50 minutes.

² Peaks may vary between the on and off-street parking systems *and* peaks may vary between off-street lots. The 12:00 – 1:00 PM peak captures the highest peak hour for the study zone, when use of the on system, combined, is at its highest point. The third column in Table 3 illustrates the variation in peak hours by stall types.

- Vehicles parked in 2-hour stalls had an average length of stay of 2 hours 8 minutes, very close to the posted limit. These stalls also have a moderate level of occupancy (70.3%), suggesting that the current limit is appropriate to user need.
- The average length of stay in No Limit stalls is 3 hours 43 minutes, which may indicate use by both visitors and employees.
- Average length of stay at 10-minute stalls was anomalous in that two vehicles were parked for a sustained period, generating an average stay of 4 hours 30 minutes. Further evaluation of the location and necessity of these stalls is needed.
- 15-minute stalls showed moderate use at 50% occupancy, but had an average stay of about 90 minutes. As with the 10-minute stalls, further evaluation is warranted.
- The overall low occupancy level of 47.6% in the study area indicates that parking is readily available on-street throughout the day. There are very few instances where the system is constrained for any sustained period of time.
- Even though rates of violation are high (23%), low occupancies indicate that users are not being denied access to parking in a manner that would require greater enforcement to ensure availability.

Figure B provides an hour-by-hour look at occupancy performance on the survey day. Overall occupancy is low throughout the day. The peak hour reaches 47.6% between noon and 1:00 PM. Overall occupancy remains just above 40% between 10:30 AM and 4:30 PM. There is abundant parking available, with significant capacity to absorb new trips.

FIGURE B
2016 Newberg on-Street Utilization

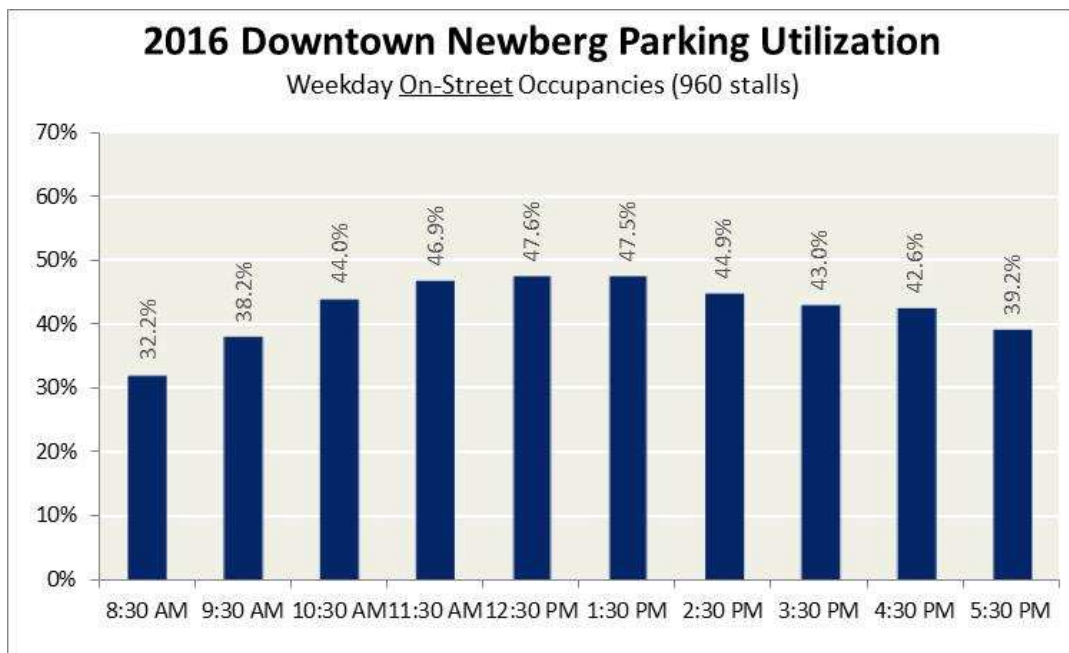
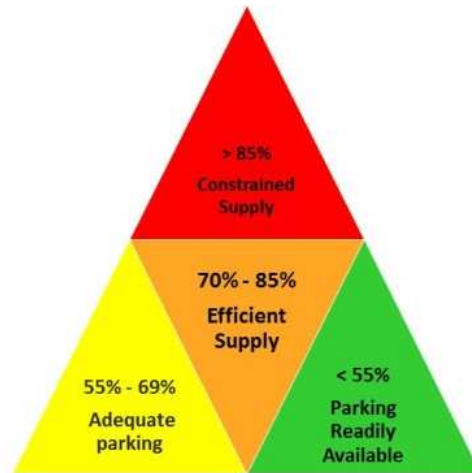
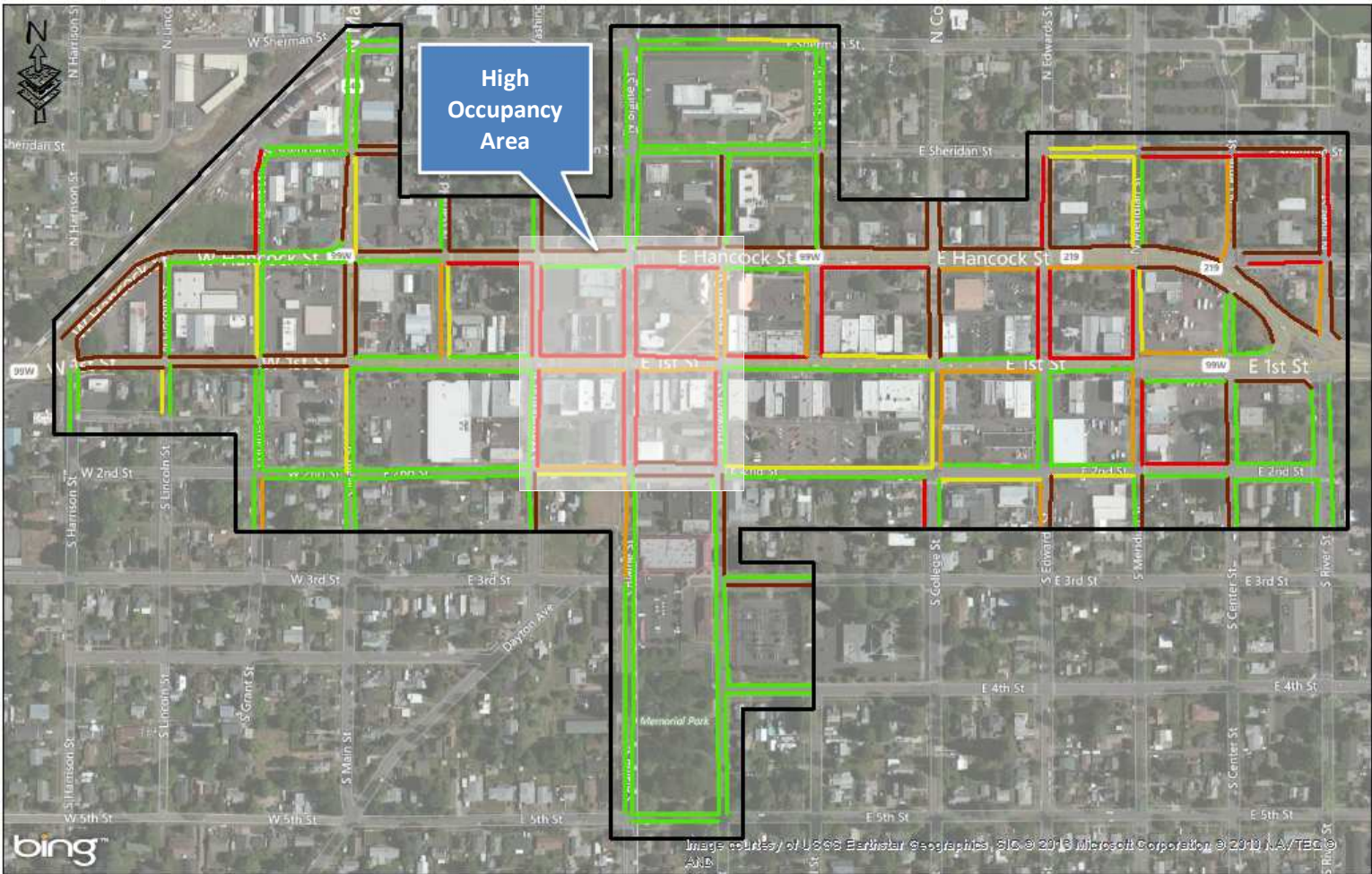


Figure C (next page) summarizes occupancy in the peak hour by block face via a “heat map” of the study area. A heat map uses color to display degrees of occupancy as measured against an industry standard of 85%: when occupancy exceeds that level, the system is considered constrained. Block faces marked in red indicate areas of constraint. Green represents areas of underutilized parking, while yellow and orange represent the middle ranges of occupancy. See figure at right.



In the study area, there are a total of 175 block faces where on-street parking is allowed. As **Figure C** illustrates, 28 of those block faces are constrained at the peak hour, about 16% of the study area. Thirteen of the 28 constrained block faces are clustered between E Hancock and E 2st Street between Washington and Howard. Even in this high-occupancy area (highlighted in the white box in **Figure C**), parking is available within a block or two, if not on an adjacent block face. However, the clustering of high demand on these block faces may create the perception among users that parking is generally constrained downtown, particularly for those not inclined to walk even a short distance.

FIGURE C
2016 Newberg On-Street Heat Map



City of Newberg Downtown

Newberg Parking Utilization

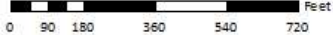
RICK WILLIAMS CONSULTING
Parking & Transportation

- Parking Study Area
- > 85%
- 84% - 70%
- 69% - 55%
- < 55%

No Parking

April 13, 2016

12:00 - 1:00 PM
On-Street Peak Hour



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

Table 4 summarizes a number of performance metrics for the on-street system.

Table 4
On-Street Parking: Summary of Use Characteristics
Complete Study Area (960 stalls)

	Use Characteristics	All Users
a	Average length of stay per vehicle per occupied stall	2 hr 50 min
b	Number of Unique License Plates	1,303
c	Actual turnover rate (number of cars to use a single occupied stall over a 10 hour period)	3.54
d	% of unique vehicles violating the posted time stay	23.0%
e	Actual number of vehicles parked for time stays over 5 hours	88

a. Average length of stay

- The average stay for all on-street parking stalls is 2 hours 50 minutes.
- The high number of No Limit stalls, with an average stay of 3 hours 43 minutes, clearly brings up the overall average.

b. Number of unique vehicles

The recording of license plate numbers allows us to identify the total number of unique vehicles using the on-street system.³

On the survey day, 1,303 unique license plate numbers were recorded on-street between 8:00 AM and 6:00 PM. This translates to approximately 130 vehicles arriving each hour over the course of an average business day. Overall, this is a low to moderate volume of parking activity.

c. Turnover: Efficiency of the Parking System

In most cities, the primary time limit allows for calculation of an *intended turnover rate*. For example, if the limit for a stall is two hours, and over a 10-hour period that stall is occupied by five unique vehicles, it's intend. 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 5.0 would indicate a system that is operating efficiently.

³Note this does not represent all vehicles in the study area, as license plate numbers were not recorded in off-street facilities.

In the Newberg study area, the on-street parking system has an average turnover rate of 3.54. This indicates a system that does not support vital street-level activity or retail businesses. This is due to more than half the supply being given over to No Limit stalls, which are more conducive to commuter trips than to visitor/customer trips.

With the Newberg-Dundee Bypass opening late next year, measures must be taken to support higher turnover rates and accommodate growing demand for retail parking. The number of No Limit stalls will need to be gradually reduced, particularly in areas where street-level business activity is desired.

d. Rate of Violation - Exceeding Posted Time Stays

Approximately 23% of unique vehicles parked in time-limited stalls downtown exceed the posted time stay.⁴ On the survey day, 299 vehicles exceeded the posted stay on-street. The industry best-practice standard for time stay violations is between 5% and 9%. Newberg's total is well above the high side of the standard, but is not troublesome at this time as occupancies are so low. Enhanced enforcement would only be recommended in situations where the rate of violation exceeds the industry standard in a constrained parking environment, where high rates of violation result in less access. This is not currently the case in Newberg.

e. Excessive time stay

Some violations of posted time stays can be considered abuse of the system. The consultant team tracked vehicles parked in time-limited stalls for periods of five hours or more. On the survey day, 88 vehicles fell into this category. These vehicles were parked in 10-minute, 15-minute, 30-minute, 1-hour and 2-hour stalls. It is likely that these vehicles belong to employees.

f. Moving to Evade

"Moving to evade" refers to vehicles moving between time-limited on-street stalls over the course of a day. This metric can indicate abuse of the system, particularly if those moving their vehicles are employees. Users who shuffle their vehicle from one stall to the next reduce the number of on-street parking opportunities for visitors and customers, creating an artificial constraint on the system. Ideally, those wanting to park for longer periods of time would be directed to off-street lots. This would preserve the on-street supply for higher turnover users.

Table 5 (next page) summarizes the number of unique vehicles identified as moving from one stall to another during the survey day. As indicated, 74 vehicles fell into this category, representing about 6% of all vehicles parked on-street on the survey day.

⁴ Time stay violations can only occur in time-limited stalls. The majority of stalls in Newberg are No Limit. The 23% rate of violation established here is only for parking in the 293 of 960 stalls that are time-limited.

Table 5
Summary of 'Moving to Evade' – Downtown Newberg

Moving To Evade Parking Citations	Values
Occurrence of license plates observed moving to evade parking citations (e.g., employees moving their car every few hours)	74 (5.7% of unique vehicles)
Average moves per unique license plate	1.1

As with rates of violation above, this metric may not be of consequence at this time due to the low rates of occupancy in downtown Newberg.

B. Off-Street Parking Summary

Although the current peak occupancy level of the on-street supply is low at 47.6%, future constraints in the system will need to be directed to off-street locations. To this end, understanding how the off-street system operates in relation to the on-street system, and determining its capacity to absorb growth in parking demand, will be important.

Figure D (next page) illustrates occupancy levels for each hour of the ten-hour survey day. The highest occupancy occurred between 11:00 AM and 12:00 PM, one hour earlier than the on-street system. During this hour, the off-street supply reached 47.3% occupancy, leaving 305 stalls available for use.⁵ As with the on-street system, this is a low rate of use, leaving an abundance of parking available to accommodate new growth and increases in parking demand.

⁵ When combined with the on-street system, approximately 808 total stalls were empty at the peak.

Figure D
2016 Newberg Off-Street Utilization

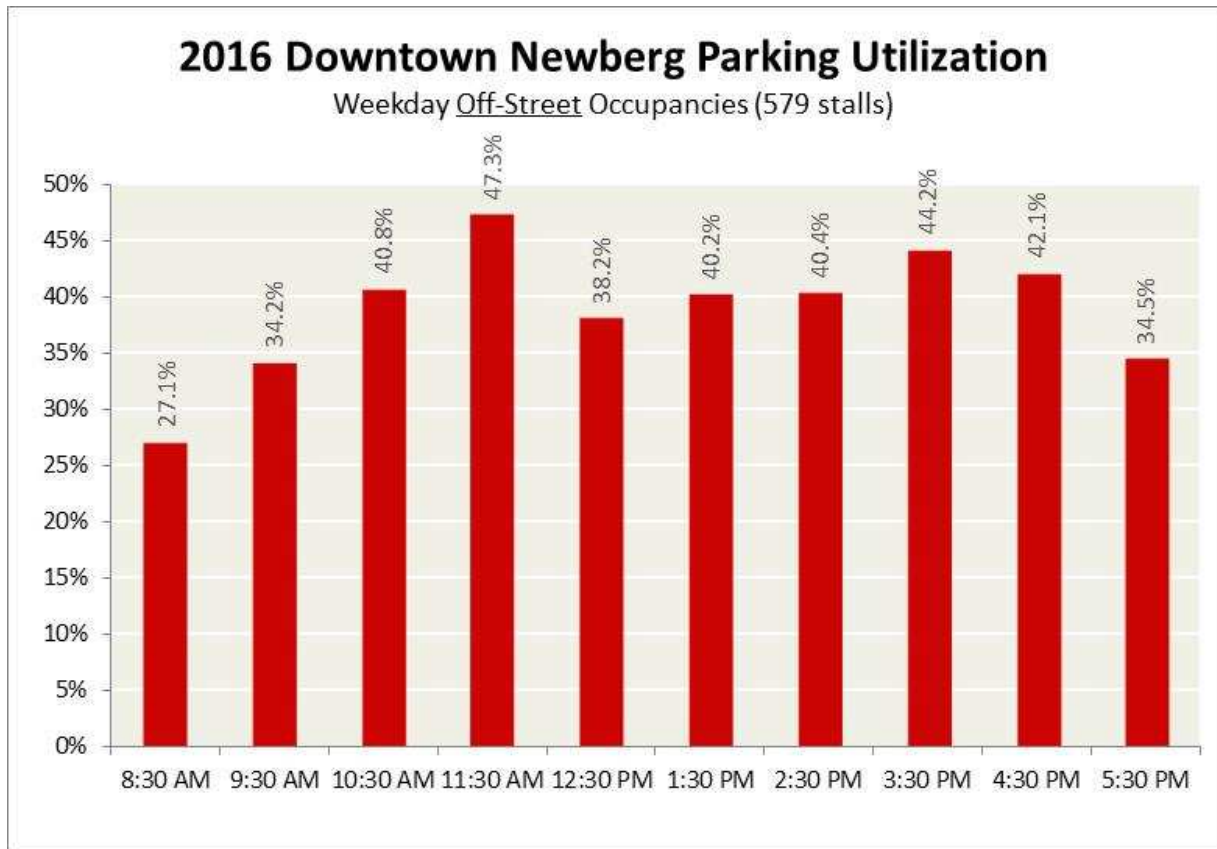


Table 6 provides a peak-hour usage summary for each of the 27 surveyed off-street lots. As the table demonstrates, most lots are small to medium in size. The largest lot (Lot 60) is a 90-stall lot serving multi-tenant retail. Some lots do have moderate to high peak occupancies, but the overall average is still less than 50%, and the availability of parking is evenly distributed throughout the downtown (see **Figure E** below). If findings from the survey sample (27 lots, 549 stalls) are extrapolated to the entire off-street supply (85 lots, 1,146 stalls), there would be a total of 604 empty off-street stalls at the peak hour. This is summarized in the bottom row of **Table 6**.

Table 6
2016 Newberg Off-Street Parking – Surveyed Lots

Lot Number	Parking Facility	# of Stalls	Peak Hour	Peak Occupancy	Stalls Available
2	Roped off, not striped	24	N/A	0.0%	24
9	First Federal Bank	22	9:00 – 10:00 AM 11:00 AM – 12:00 PM	50.0%	11
10	Wells Fargo + Drive Thru	14	1:00 – 2:00 PM	78.6%	3
13	Newberg World of Faith Center	15	11:00 AM – 12:00 PM 3:00 – 4:00 PM	26.7%	11

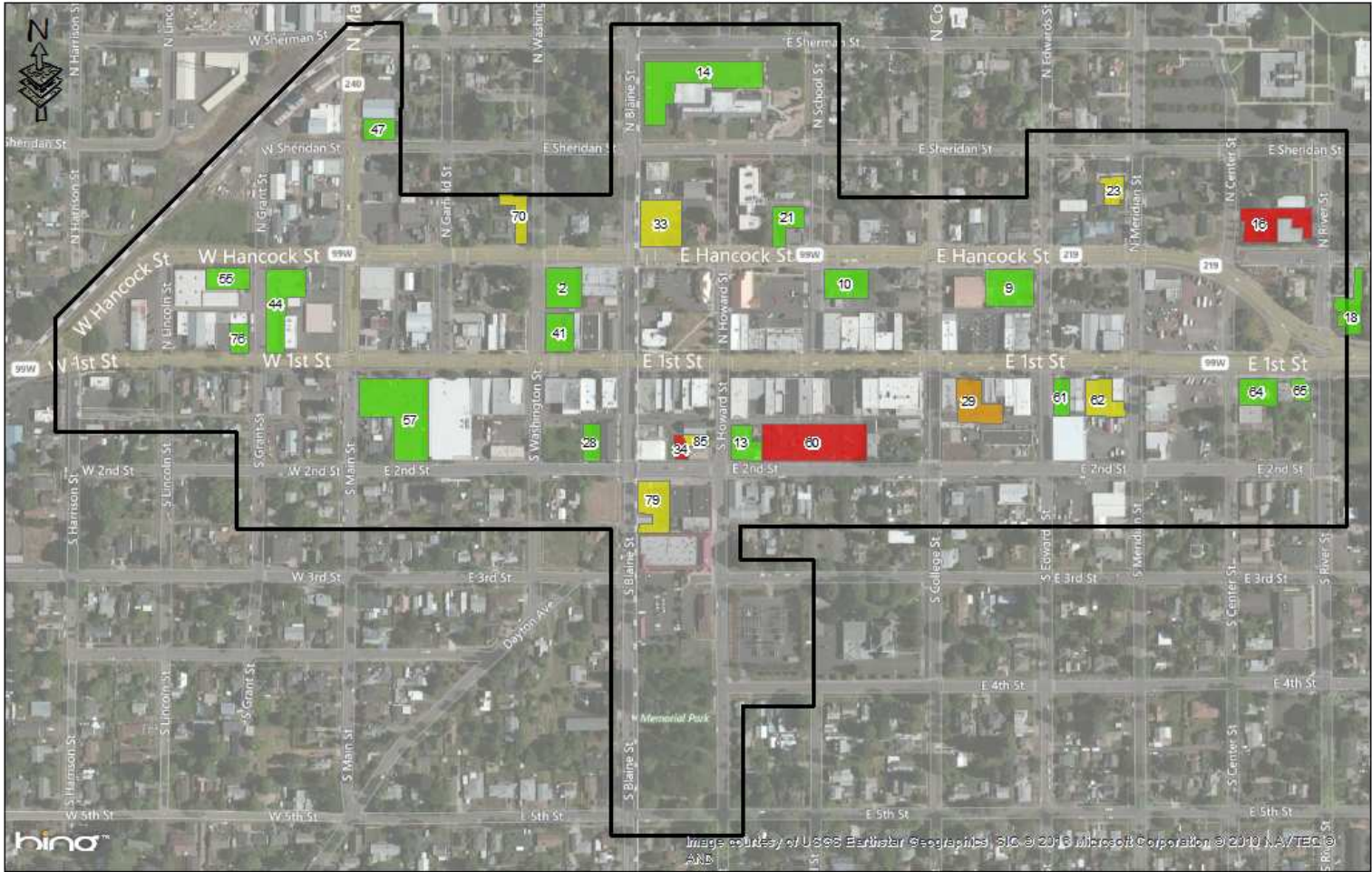
14	Chehalem Cultural Center	54	11:00 AM – 12:00 PM	18.5%	44
16	Campus Residential Parking	32	1:00 – 2:00 PM	93.8%	2
18	River Street Dental	18	N/A	0.0%	18
21	First American Title	14	4:00 – 5:00 PM	42.9%	8
23	Meridian St. Building	11	3:00 – 4:00 PM	81.8%	2
28	Joshua Suites Professional Building	11	4:00 – 5:00 PM	72.7%	3
29	Private - Law Office	16	3:00 – 4:00 PM	93.8%	1
33	Public Parking	28	11:00 AM – 12:00 PM	60.7%	11
34	6 Civic Vehicle Parking	6	8:00 AM – 12:00 PM 1:00 – 4:00 PM	100.0%	0
41	Ixtapa Restaurant	18	5:00 – 6:00 PM	50.0%	9
44	Pasquale's Italian Restaurant	25	8:00 – 9:00 AM	20.0%	20
47	Anam Cara Cellars	8	10:00 AM – 12:00 PM 1:00 – 3:00 PM	25.0%	6
55	Terry's Crush Cellar	17	11:00 AM – 12:00 PM	47.1%	9
57	Thriftway	64	3:00 – 4:00 PM	51.6%	31
60	Multi Tenant Retail	90	11:00 AM – 12:00 PM	87.8%	11
61	Unknown	10	5:00 – 6:00 PM	60.0%	4
62	American Insurance Family	17	12:00 – 2:00 PM	70.6%	5
64	Chehalem Tasting Room	14	11:00 AM – 4:00 PM	21.4%	11
65	Newberg Food Mart	5	4:00 – 5:00 PM	100.0%	0
70	Dr. Robert C. Wilde, D.M.D. General Dentistry	12	11:00 AM – 12:00 PM	66.7%	4
76	1st Street Laundromat	9	5:00 – 6:00 PM	44.4%	5
79	Newberg Fire	19	10:00 – 11:00 AM	68.4%	6
85	General Vehicle Parking	6	3:00 – 4:00 PM	83.3%	1
	Off-Street Supply Surveyed (27 sites)	579	11:00 AM – 12:00 PM	47.3%	305
	All Off-Street Supply (85 inventoried sites - extrapolated)	1,146	11:00 AM – 12:00 PM	47.3%	604

Figure E (page 16) provides a heat map that illustrates off-street peak-hour occupancy. Three off-street lots (#16 – Campus Residential Parking; #34 – 5 Civic Vehicle Parking; #60 – Multi-Tenant Retail) have peak occupancy over 85%. This is a small segment of all parking in the study area, but could raise the perception that parking is constrained overall.

The availability of off-street parking presents an opportunity to begin conversations on potential shared use agreements with owners of private parking.

A longer-term potential project is identifying land parcels that could be purchased for long-term parking. This would allow the City to manage the on-street system and direct long-term parkers into additional public lots. The four public lots surveyed had a combined occupancy of 86.9%. Again, this is a longer-term consideration, as current occupancies are low enough that typical weekday users do not experience significant difficulty finding parking within a short walk of most any location.

FIGURE E
2016 Newberg Off-Street Heat Map



City of Newberg Downtown

Newberg Parking Utilization

RICK WILLIAMS CONSULTING
Parking & Transportation



April 13, 2016

11:00 AM - 12:00 PM
Off-Street Peak Hour



C. Combined Parking Summary

Combining both the on- and off-street systems allows for a more holistic understanding of how the entire parking system is working. **Table 7** provides a summary of on- and off-street usage, resulting in a combined peak occupancy of 46.8%. A total of 818 stalls surveyed were unoccupied; extrapolated to the entire system, 1,119 stalls were unoccupied. Both the on- and off-street supplies have ample capacity for absorption in the future.

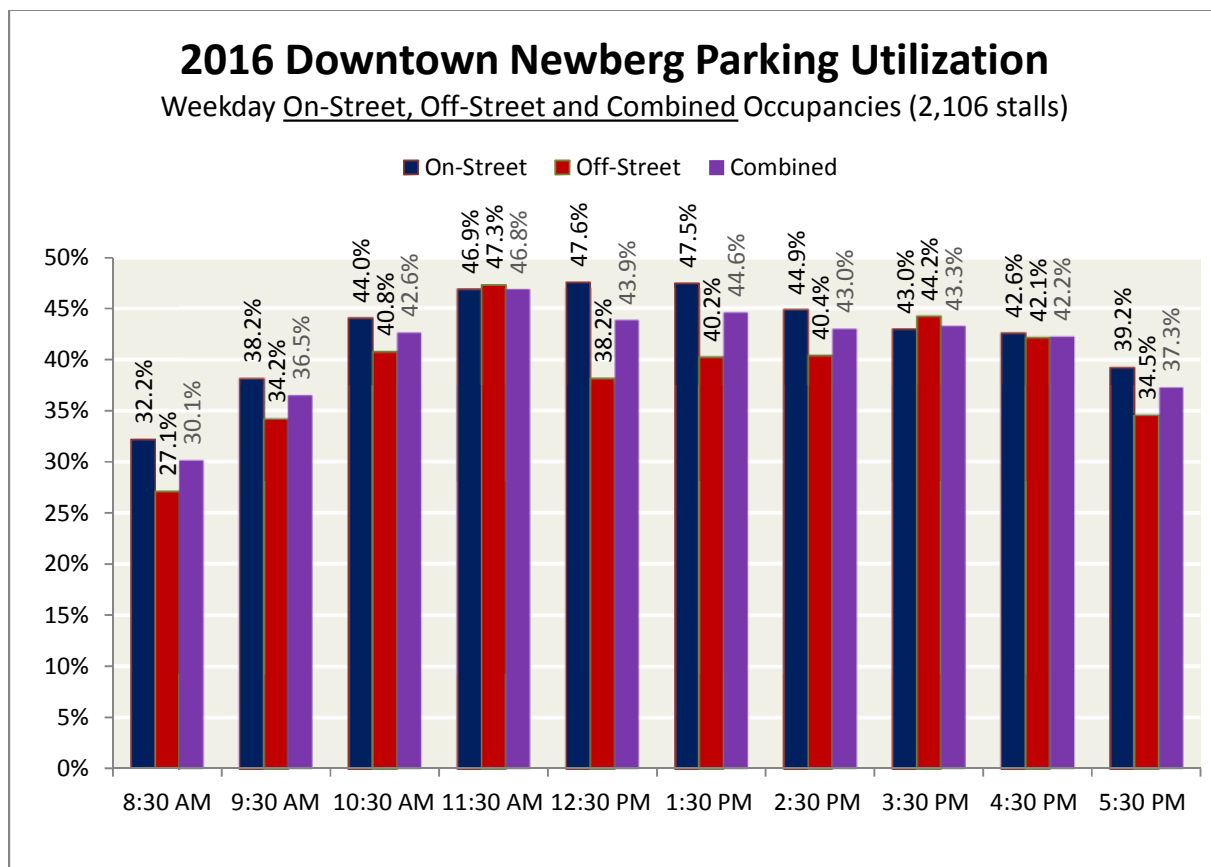
Table 7
2016 Newberg Combined Parking Utilization

Use Type	# of Stalls	Peak Hour	Peak Occupancy	Stalls Available
On-Street Supply Surveyed	960	12:00 – 1:00 PM	47.6%	500
Off-Street Supply Surveyed	579	11:00 AM – 12:00 PM	47.3%	305
Total Supply Surveyed	1,539	11:00 AM – 12:00 PM	46.8%	818⁶
Total (All On and Off-Street) Extrapolated	2,106	11:00 AM – 12:00 PM	46.8%	1,119

Figure F (next page) illustrates the on-street, off-street and combined occupancies for each hour of the ten-hour survey day.

⁶ Note that the “total supply surveyed” totals 818, rather than 808 as the two rows above would suggest. This is a function of the two different peak hours for the on- and off-street supplies. When both supplies are combined, the peak hour occurs between 11 AM and noon, causing the 10-vehicle difference.

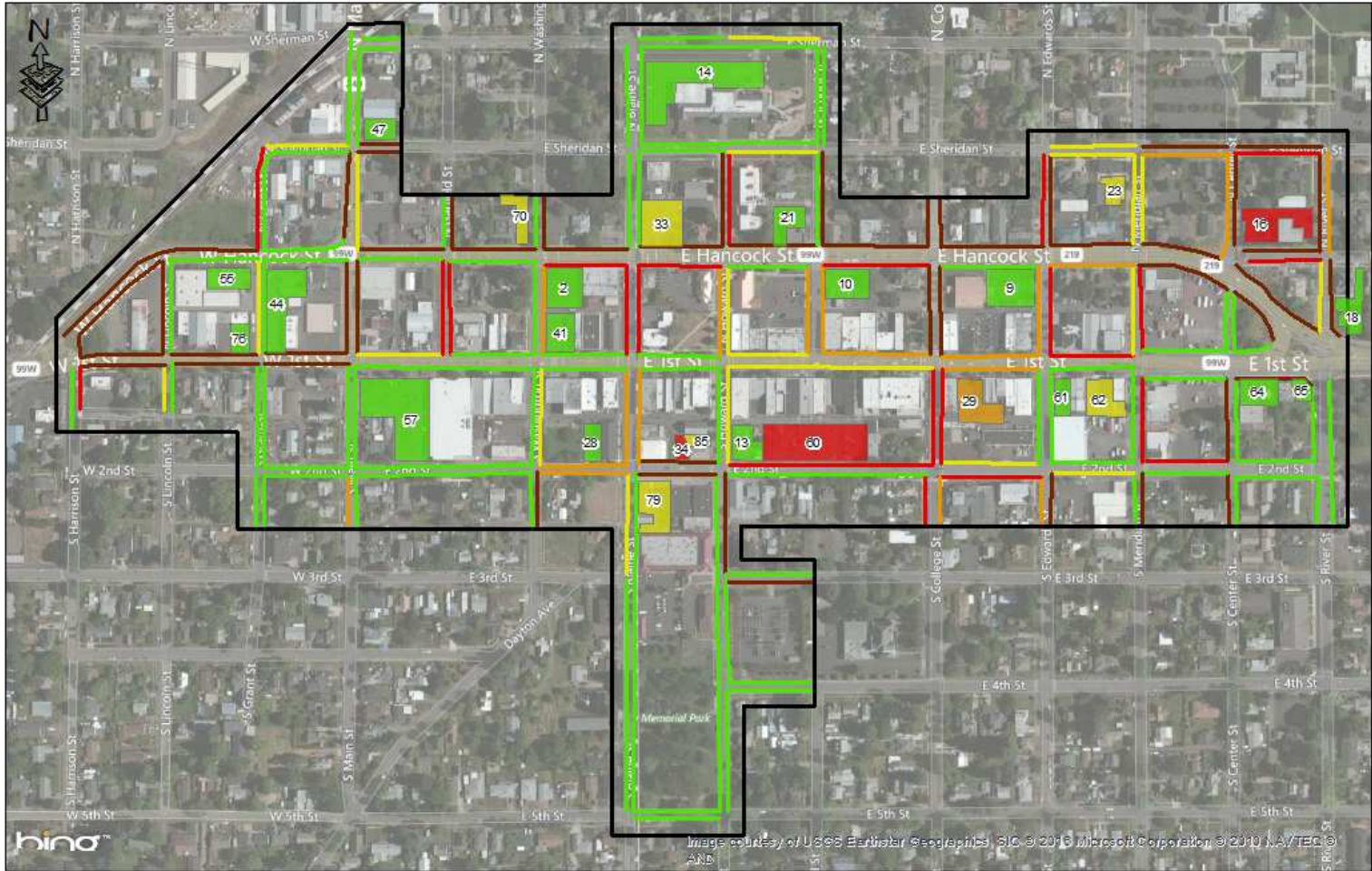
Figure F
2016 Newberg On-Street/Off-Street/Combined Occupancies



The combined graphic of peak hours shows that even though the on- and off-street systems share a similar peak occupancy of just over 47%, the on-street system tends to sustain occupancies throughout the midday, while the off-street experiences a more substantial drop in use. The off-street system does show an upward spike between 3:30 PM and 4:30 PM. This graphic underscores the abundant amount of unused parking in the downtown parking supply at all hours of the day.

Figure G (next page) illustrates combined on- and off-street peak occupancy. At the combined peak hour of 11:00 AM to noon, the few locations that do have 85% or higher occupancies are all convenient to either on- or off-street supplies of empty parking. Overall, any location that is constrained has empty parking directly adjacent or, at worst, within a block.

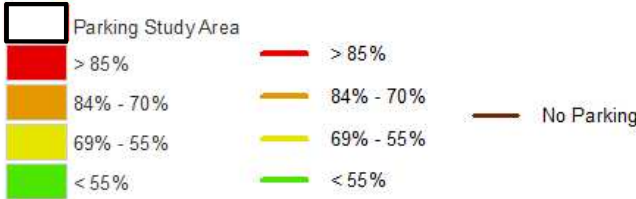
FIGURE G
2016 Newberg Heat Map



City of Newberg Downtown

Newberg Parking Utilization

RICK WILLIAMS CONSULTING
Parking & Transportation



April 13, 2016

11:00 AM - 12:00 PM
Combined Peak Hour



IX. SUMMARY

The 2016 data analysis of the on- and off-street parking in downtown Newberg indicates that the system is operating at a low level of capacity. The on-street system shows indication of inefficiencies, as the parking turnover rate is relatively low (3.54) and the violation rate is high (23%). This combination does not support a robust retail environment. Off-street parking is abundant, with numerous lots with low to moderate occupancies.

The combined peak-hour occupancy level hovers around 47%, and parking is generally available at any location in the study area. Recalibrating on-street time stays to more accurately reflect the needs of users will be one step in encouraging ground-level business. This would begin with strategically reducing the number of No Limit stalls in the downtown and replacing them with 2-hour stalls. Working with owners of private off-street parking to create partnerships and discuss shared parking opportunities will complement reformatting of the on-street supply. These few steps are important elements in anticipation of the exciting changes coming to a revitalizing Newberg.

ATTACHMENT A
2016 Newberg Off-Street Inventory by Site
(Red indicates lots surveyed on 4/13/2016)

Lot Number	Parking Facility	# of Stalls	Use Type	Lot Type
1	Gonzales Panaderia & Taqueria (Alley)	4	Alley	Private
2	Roped off, not striped	24	Alley	Private
3	Alley Parking- Tenant/Customer Parking	7	Alley	Private
4	Alleyway Residents only	3	Alley	Private
5	True Form Collision Repair	10	Auto	Private
6	Leif's Auto Collision/ Gas Station	3	Auto	Private
7	Newberg Tire and Auto Repair	8	Auto	Private
8	Newberg Body & Paint	15	Auto	Private
9	First Federal Bank	22	Bank	Private
10	Wells Fargo + Drive Thru	14	Bank	Private
11	First Community Credit Union	12	Bank	Private
12	Church Parking	3	Church	Private
13	Newberg World of Faith Center	15	Church	Private
14	Chehalem Cultural Center	54	Civic	Private
15	Secured Public Safety Vehicles	41	Civic	Private
16	Campus Residential Parking	32	Institution	Private
17	Dr. Brecke Office - Dental	6	Medical	Private
18	River Street Dental	18	Medical	Private
19	Rita Wolff Oregon Broker	3	Office	Private
20	Valley Realty Professionals LLC	2	Office	Private
21	First American Title	14	Office	Private
22	Newberg Travel & Cruise	7	Office	Private
23	Meridian St. Building	11	Office	Private
24	State Farm	6	Office	Private
25	Meridian St. House/Social Work	16	Office	Private
26	Chehalem Valley Chamber, Personal Farmer, Workplace	15	Office	Private
27	The Newberg Graphic	33	Office	Private
28	Joshua Suites Professional Building	11	Office	Private
29	Private - Law Office	16	Office	Private
30	Unknown	7	Office	Private
31	Public Safety Bldg/Thrift Shop/Park	17	Office	Private
32	Income Tax - Thomas L. Deines LLC (FOR LEASE)	5	Office	Private
33	Public Parking	28	Public	Public
34	6 Civic Vehicle Parking	6	Public	Public
35	Apartments 611	24	Residential	Private
36	Unknown	4	Residential	Private
37	Apartments	5	Residential	Private
38	Nara Teriyaki	7	Restaurant	Private

39	Jem 100 Ice Cream	16	Restaurant	Private
40	Papa Murphy's	8	Restaurant	Private
41	Ixtapa Restaurant	18	Restaurant	Private
42	Recipe	7	Restaurant	Private
43	Jac's Deli and Frozen Custard	5	Restaurant	Private
44	Pasquale's Italian Restaurant	25	Restaurant	Private
45	Dairy Queen (CLOSED)	23	Restaurant	Private
46	Subway	15	Restaurant	Private
47	Anam Cara Cellars	8	Retail	Private
48	Back side of Anam Cara Cellars	8	Retail	Private
49	Rays Produce	8	Retail	Private
50	Wine Country Antiques	8	Retail	Private
51	Luck Finds Thrift Store	9	Retail	Private
52	Mixed retail (Dominos)	23	Retail	Private
53	Ken & Daughter Jewelers	4	Retail	Private
54	Quick Stop Market	6	Retail	Private
55	Terry's Crush Cellar	17	Retail	Private
56	American Classic and Hot Rods	40	Retail	Private
57	Thriftway	64	Retail	Private
58	Chahalem Sign Company	10	Retail	Private
59	Pitter Patter	13	Retail	Private
60	Multi Tenant Retail	90	Public	Public
61	Unknown	10	Retail	Private
62	American Insurance Family	17	Retail	Private
63	Delano Supply	5	Retail	Private
64	Chehalem Tasting Room	14	Retail	Private
65	Newberg Food Mart	5	Retail	Private
66	Mr. Rooter	3	Retail	Private
67	Newberg Steel	3	Service	Private
68	First Street Yoga	3	Service	Private
69	Specialty Contracting Glass and Door	1	Service	Private
70	Dr. Robert C. Wilde, D.M.D. General Dentistry	12	Service	Private
71	Trinity Hair Design	7	Service	Private
72	Post Office	7	Service	Private
73	Leather Gas Station	3	Service	Private
74	Newberg Family Chiropractic (Alleyway Parking)	7	Service	Private
75	Alleyway Parking (for Leif's repairs)	7	Service	Private
76	1st Street Laundromat	9	Service	Private
77	Jay's Custom Fabrication	10	Service	Private
78	Studio 601 Hair Design	6	Service	Private
79	Newberg Fire	19	Service	Private
80	Strong Hands Massage Therapy	4	Service	Private

81	Gravel Lot CONSTRUCTION	7	Unknown	Private
82	Habitat for Humanity Restore (CLOSED) (BLOCKED OFF)	7	Unknown	Private
83	111 N Grant St or N Hancock St	3	Unknown	Private
84	FOR LEASE	18	Unknown	Private
85	6 General Vehicle Parking	6	Public	Public
	Off-Street Supply - Surveyed (27 sites)	579	50.5%	
	All Off-Street Supply - Inventoried (85 sites)	1,146	100%	

APPENDIX

F

NEWBERG DOWNTOWN IMPROVEMENT PLAN: CAPITAL IMPROVEMENT COSTS

NEWBERG DOWNTOWN IMPROVEMENT PLAN

CAPITAL IMPROVEMENT COSTS



Prepared for

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CITATION

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EXECUTIVE SUMMARY

Capital improvement costs for transportation, water, sewer, and stormwater infrastructure in downtown Newberg were developed based on the concepts and big ideas presented in the Newberg Downtown Improvement Plan (NDIP). The capital improvement cost estimating methodology provides a way to build planning level project cost estimates for all or a portion of infrastructure improvements on First Street, Hancock Street, and Second Street along with all north/south streets in the downtown Newberg study area.

The methodology is built on estimating the infrastructure improvement costs of one downtown city block including the eastern adjacent intersection. Different improvement assumptions are included in the one city block capital improvement cost estimates for First Street, Hancock Street, Second Street, and all N-S Streets based on existing conditions. Also, capital improvement costs for a permanent and a temporary lane reduction on First Street and Hancock Street are included. ODOT and the City are evaluating the two options to remove a travel lane on First Street and Hancock Street because with only Phase 1 of Newberg Dundee Bypass in place traffic congestion will increase over the 20-year planning horizon and it may be necessary to restore three travel lanes through downtown Newberg in the future. Completion of the Bypass would likely allow for the permanent “road diet” improvements to First Street and Hancock Street.

Based on the big ideas, the cost of removing a travel lane on the entire length of First Street permanently is about \$9.3M and the cost of a temporary travel lane removal is about \$2.1M. The cost of removing a travel lane on the entire length of Hancock Street permanently is about \$2.7M and the cost of a temporary travel lane removal is about \$1M. The cost of improving the entire length of Second Street in the Second Street Mixed Use District is about \$864,000. And the cost for converting the two block of Howard Street between First Street and Sheridan Street to a festival street is about \$2M.

More detailed analysis and estimating at the next stages of planning or project development will refine this work.

CAPITAL IMPROVEMENT COSTS

This memo presents capital improvement costs for transportation, water, sewer, and stormwater infrastructure in downtown Newberg based on the concepts and big ideas presented in the Newberg Downtown Improvement Plan (NDIP). The planning level cost estimating methodology developed for the NDIP is a flexible way to determine the costs of specific infrastructure projects that will need to be funded in the in order to make the plan a reality. More detailed analysis and estimating at the next stages of planning or project development will refine this work.

The capital improvement cost estimating methodology provides a way to build planning level project cost estimates for all or a portion of transportation, water, sewer, and stormwater infrastructure improvements on First Street, Hancock Street, Second Street along with all north/south streets in the downtown Newberg study area. The methodology is built on estimating the infrastructure improvement costs of one downtown city block including the eastern adjacent intersection. The Newberg downtown is composed of city blocks that average about 250 feet by about 250 feet. Different improvement assumptions are included in the one city block capital improvement cost estimates for First Street, Hancock Street, Second Street, and all N-S Streets based on existing conditions. Costs for traffic signal improvements, and replacing water and sanitary sewer are included and can be added to each project estimate based on being present in the roadway.

Capital improvement costs for a permanent and a temporary lane reduction on First Street and Hancock Street are included. ODOT and the City are evaluating the two options to remove a travel lane on First Street and Hancock Street because with only Phase 1 of Newberg Dundee Bypass in place traffic congestion will increase over the 20-year planning horizon and it may be necessary to restore three travel lanes through Downtown Newberg in the future if additional phases of the Bypass are not built. With the temporary road diet concept, the lane reduction is achieved with striping and movable planters. No changes in curb locations or sidewalk width would occur. With the permanent road diet concept the curb location and sidewalk width would change. The traffic analysis for the plan recommended that First Street between School Street and College Street remain a three lane section with the third lane as a dedicated left turn lane onto northbound College Street. The traffic analysis for the plan also recommended that Hancock Street retain three lanes from River Street to College Street with the third lane as a dedicated right turn lane onto northbound College Street and from Garfield Street to Main Street with the third lane as a dedicated right turn lane onto northbound Main Street.

Using the one block cost estimates, a total project cost for the NDIP transportation improvement concepts can be determined by multiplying the one block cost estimate by the number of downtown blocks that would be included in the project. As an example, if the City and ODOT wanted to initiate a project to permanently remove a travel lane on a portion of First Street between Washington and Edwards, the one block improvement cost estimate is multiplied by five blocks and the cost of two signal replacements and about 1200 feet of water line replacement is added to the total.

It is assumed that water and sewer systems in the NDIP planning area will be upgraded and improved as needed to support growth in conjunction with new development or with transportation improvement projects. Below are the detailed description and planning level cost estimates of capital improvements on First Street, Hancock Street, Second Street, North/South Streets in the study area. Cross sections of each street existing condition along with proposed NDIP roadway improvement cross sections are included. Note the cost estimates do not include street lighting and street benches or other pedestrian furnishings. The cost of these elements can vary widely based on the architectural type or style. Street

lighting and pedestrian furnishings will be determined in the Streetscape, Wayfinding, and Gateway Plan, one of the next recommended planning steps for downtown Newberg. Detailed cost estimates and quantities are in Appendix A.

FIRST STREET

The existing cross section of First Street is shown below. There are three 12-foot travel lanes, a 6-foot bicycle lane and two 8-foot parking lanes and 10-foot to 11-foot sidewalks on each side of the street.

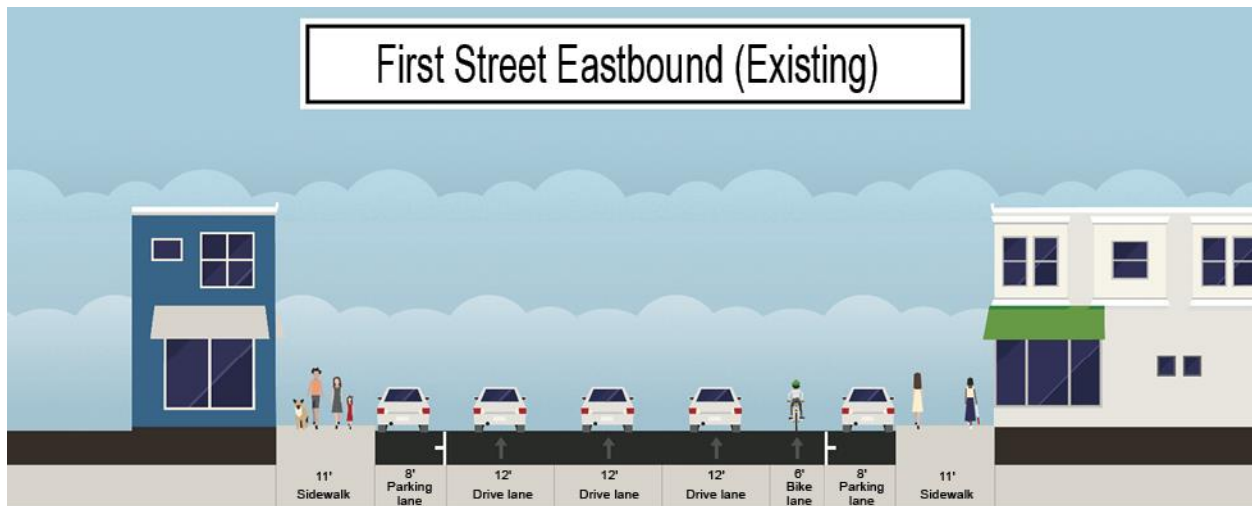


Figure 1: First Street Existing Conditions

Option 1 – Temporary Removal of Travel Lane

Option 1 would replace the 12-foot travel lane by adding a 2-foot striped buffer between the travel lane and bicycle lane, adding 1 foot to each parking lane and by adding 4-foot planters on each side of the street between the parking lane and the curb. The area for the movable planters could be painted to delineate from the parking lane. No changes in curb location or in sidewalk width would occur with this option. The planning level cost estimate for one block of First Street Option 1 is \$152,000. The cost estimate assumes:

- Pavement rehabilitation
- Replacing 25 percent of sidewalks and curbs
- Restriping
- Four 4-foot concrete planters

If the block includes an intersection with a traffic signal \$17,500 is added to the cost estimate for minor traffic signal modifications.

The cost of First Street Option 1 for the entire length of First Street in downtown Newberg is \$2,046,000.

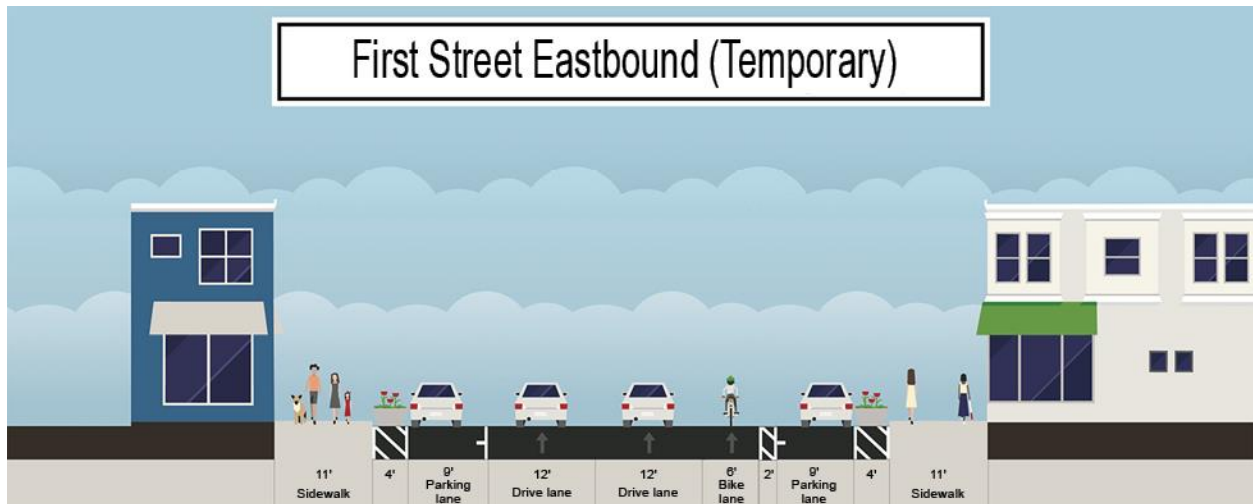


Figure 2: First Street Option 1

Option 2 – Permanent Removal of Travel Lane

Option 2 would replace the 12-foot travel lane by adding a 2-foot striped buffer between the travel lane and the bicycle lane and 5 feet of sidewalk (Option 2A) or stormwater treatment (Option 2B) to each side of the roadway.

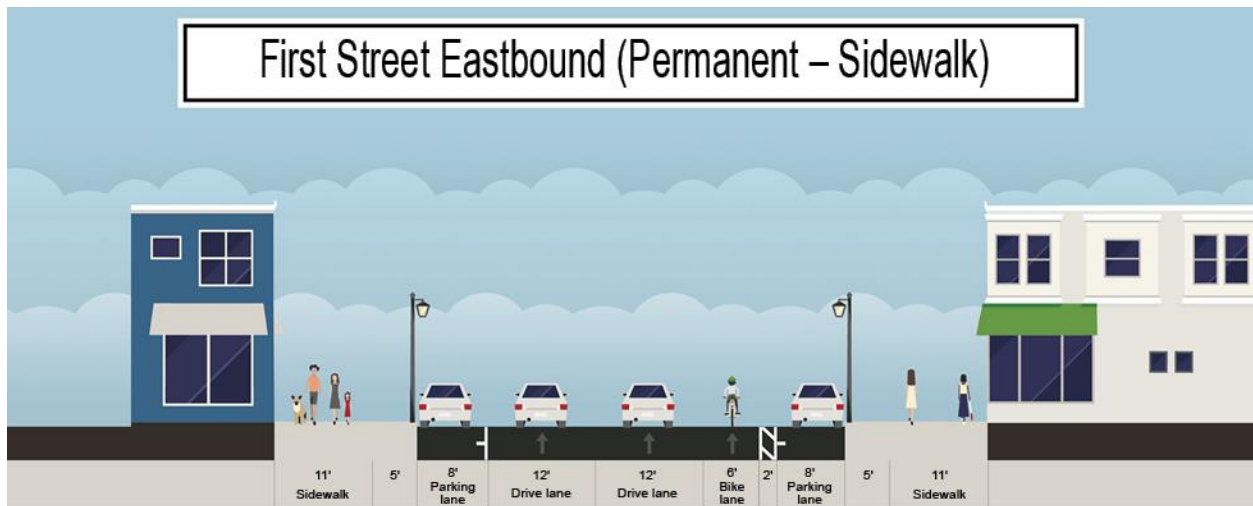


Figure 3: First Street Option 2A



Figure 4: First Street Option 2B

The planning-level cost estimate for one block of Option 2A is \$573,000 and Option 2B is \$655,000. The cost estimate includes:

- Major pavement reconstruction/rehabilitation
- Replacing all sidewalk and curbs
- Pedestrian bulb outs on all intersections
- Street trees and stormwater treatment planters
- Restriping
- Stormwater collection and transmission sewers

If the block includes:

- An intersection with a traffic signal, \$190,000 is added to the cost estimate for a signal replacement
- A water line, \$100 per foot is added to the cost estimate to replace the waterline with 12 inch ductile iron pipe.
- A sanitary sewer line, \$65 per foot is added to the cost estimate to replace the sanitary sewer with 12 inch sanitary sewer pipe.

The cost of First Street Option 2B for the entire length of First Street in downtown Newberg is \$9,275,000.

HANCOCK STREET

The existing cross section of Hancock Street is shown below. There are two 12-foot and one 11-foot travel lanes, a 6-foot bicycle lane, a 9-foot parking lane on the south side of the street and 8-foot sidewalks on each side of the street. Hancock Street was rebuilt in the late 1990s or early 2000s and is in much better condition than First Street.

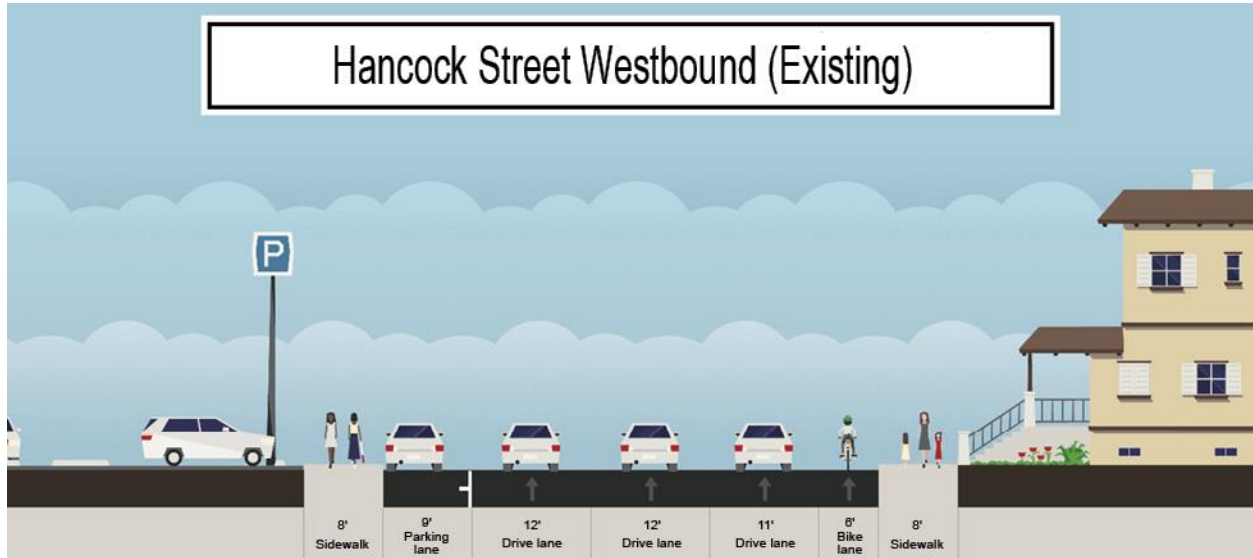


Figure 5: Hancock Street Existing Conditions

Option 1 – Temporary Removal of Travel Lane

Option 1 would replace the 11-foot travel lane by adding a 2-foot striped buffer between the travel lane and the bicycle lane and adding a 9-foot parking lane on the north side of the street. No changes in curb location or sidewalk width would occur with this option. Also, a 4-foot movable planter would be placed between the parking lane and intersection crosswalks.

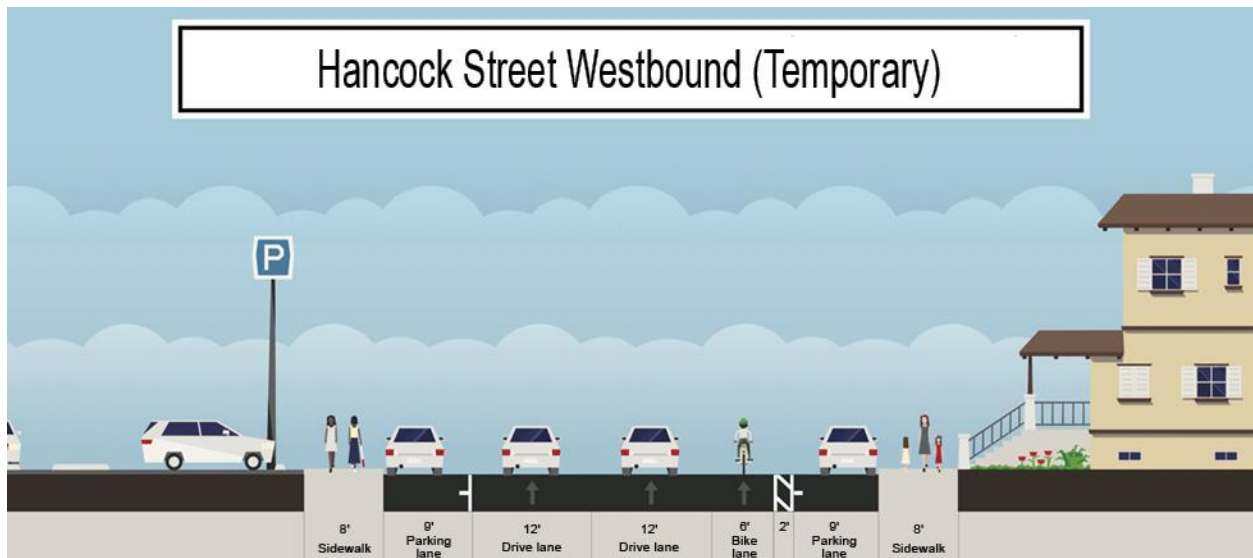


Figure 6: Hancock Street Option 1

The planning level cost estimate for one block of Hancock Street Option 1 is \$73,000. The cost estimate assumes:

- Pavement rehabilitation
- Restriping
- Placing a 4-foot concrete moveable planter on the north side of the street serving as a bulb-out at each intersection to protect the pedestrian crosswalk

If the block includes an intersection with a traffic signal \$17,500 is added to the cost estimate for minor traffic signal modification.

The planning level cost estimate of Option 1 for the entire length of Hancock Street in downtown Newberg is \$1,019,000.

Option 2 – Permanent Removal of Travel Lane

Option 2 would replace the 11-foot travel lane by adding an 8-foot parking lane and a 4-foot-wide sidewalk or stormwater treatment on the north side of the street. The parking lane on the south side of Hancock Street would be reduced to 8 feet.

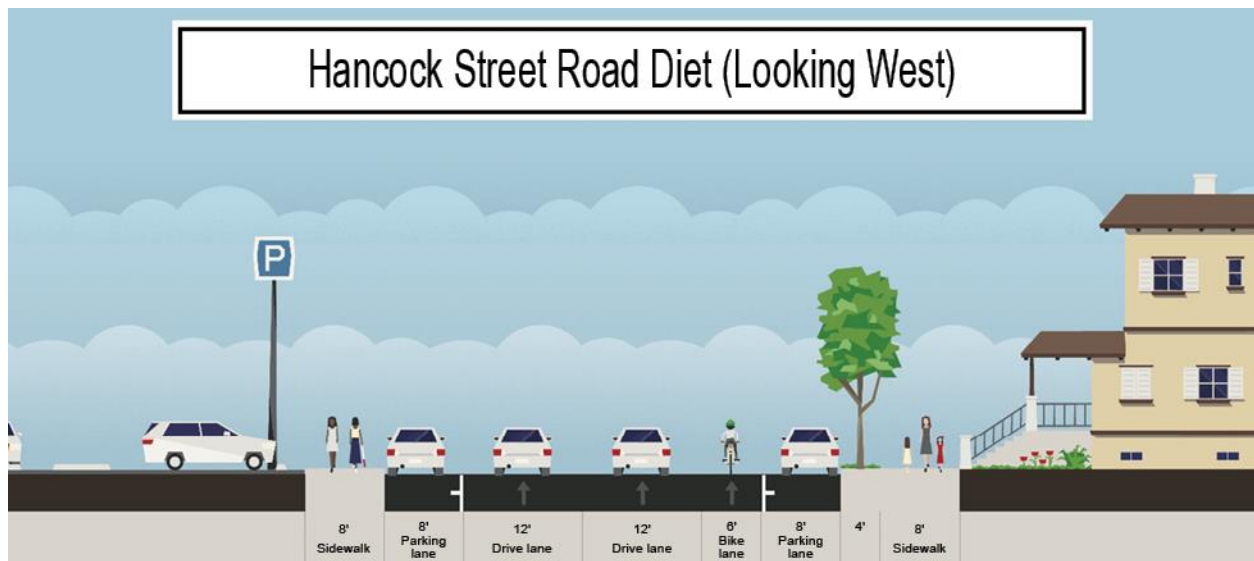


Figure 7: Hancock Street Option 2

The planning level cost estimate for one block of Option 2 is \$198,000. The cost assumes:

- Pavement rehabilitation
- Restriping
- Widening sidewalks
- Street trees and stormwater planters
- Stormwater collection and transmission pipe adjustments

If the block includes an intersection with a traffic signal \$17,500 is added to the cost estimate for a minor signal modification. Since the work on Hancock Street does not include major street reconstruction no water or sewer line replacements are included in the estimate.

The planning level cost estimate of Option 2 for the entire length of Hancock Street in downtown Newberg is \$2,650,000.

SECOND STREET

The existing cross section of Second Street is shown below. There are two 22-foot paved lanes, curb, a 4-foot planter or paved buffer strip, and a 4-foot sidewalk. Each 22-foot paved lane provides for a 14-foot travel/shared bicycle lane and 8-foot parking lanes on each side of the street. Currently, the parking lane is unmarked.

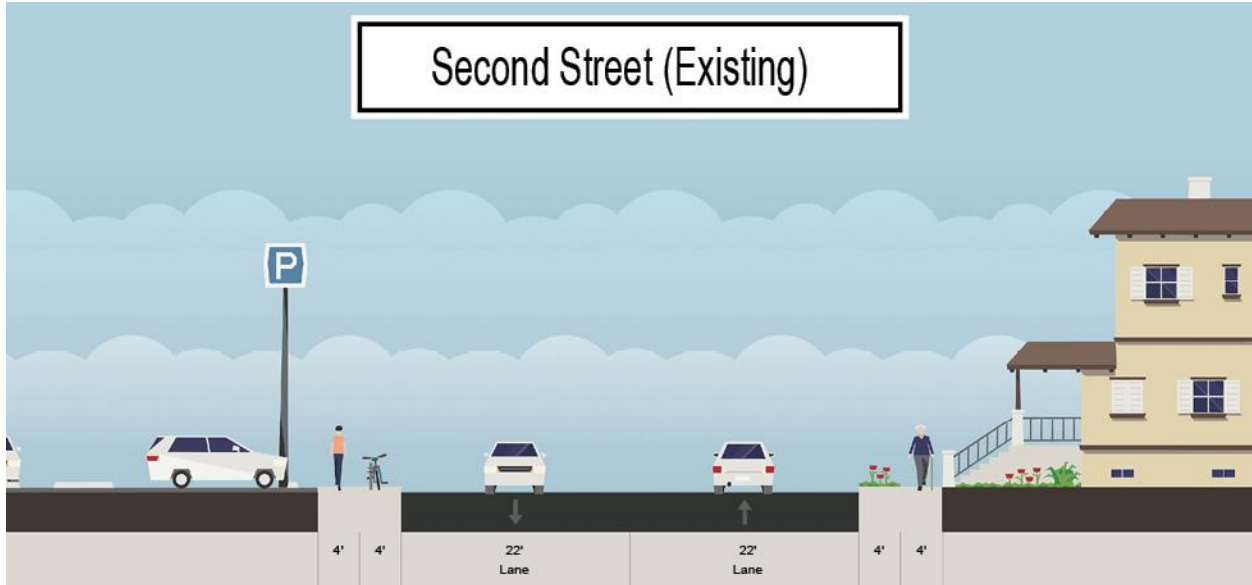


Figure 8: Second Street Existing Conditions

Second Street Future Configuration

The NDIP does not propose any changes to right of way width or changes in travel/shared bicycle and parking lanes, curb, planter/buffer strip and sidewalk location or configuration. Marked parking, and changes to the sidewalk and planter/buffer strip width would occur as part of future planning for or development of the Second Street Mixed Use District.

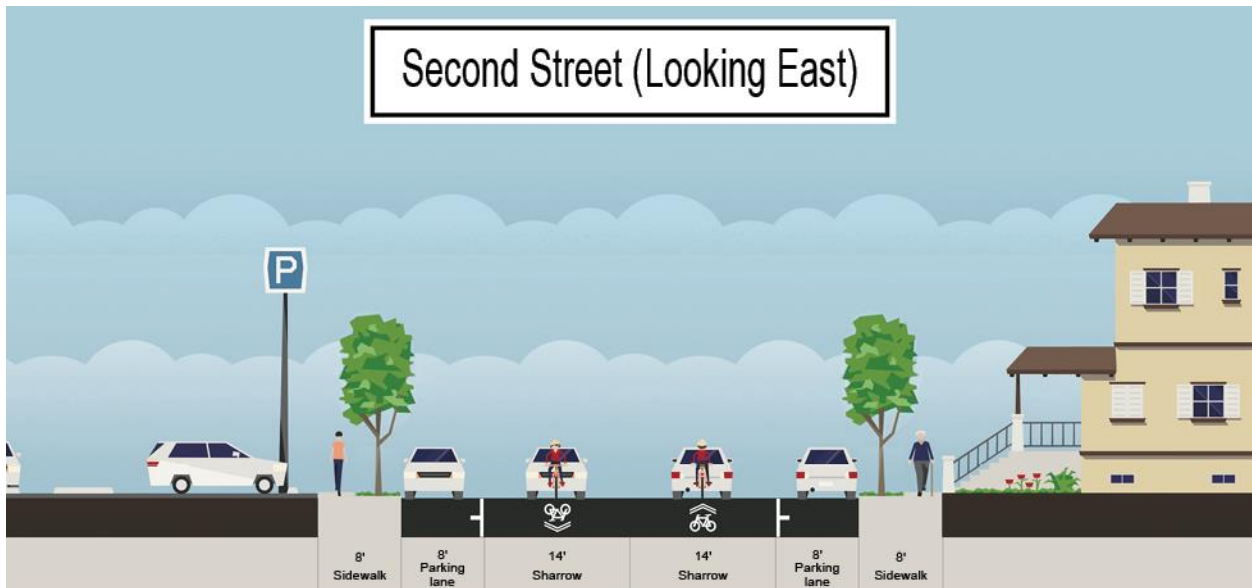


Figure 9: Second Street Proposed Future Cross-Section

The planning-level cost estimate for one block of Second Street is \$78,500. The cost estimate assumes:

- Pavement rehabilitation
- Replacing 25 percent of sidewalks and curbs
- Restriping

Since the work on Second Street does not include major street reconstruction no water or sewer line replacements are included in the estimate. There are no traffic signals on Second Street. The planning level cost estimate of improving the entire length of Second Street in downtown Newberg is \$846,000.

NORTH/SOUTH STREETS

The average existing cross section of North/South streets in the NDIP planning area is shown below. There is 36 feet of pavement between the curbs marked as two 10-foot travel/shared bicycle and two 8-foot parking lanes. There are 5- to 8-foot sidewalks on both sides of all north/south streets. Some north/south streets include 4- to 6-foot planter/buffer strip. College Street and Main Street do not have parking lanes between First Street and Hancock Street. Both streets utilize the pavement width for two travel lanes and a center left turn lane at First Street and Hancock Street. Below is a typical North/South Street cross section.

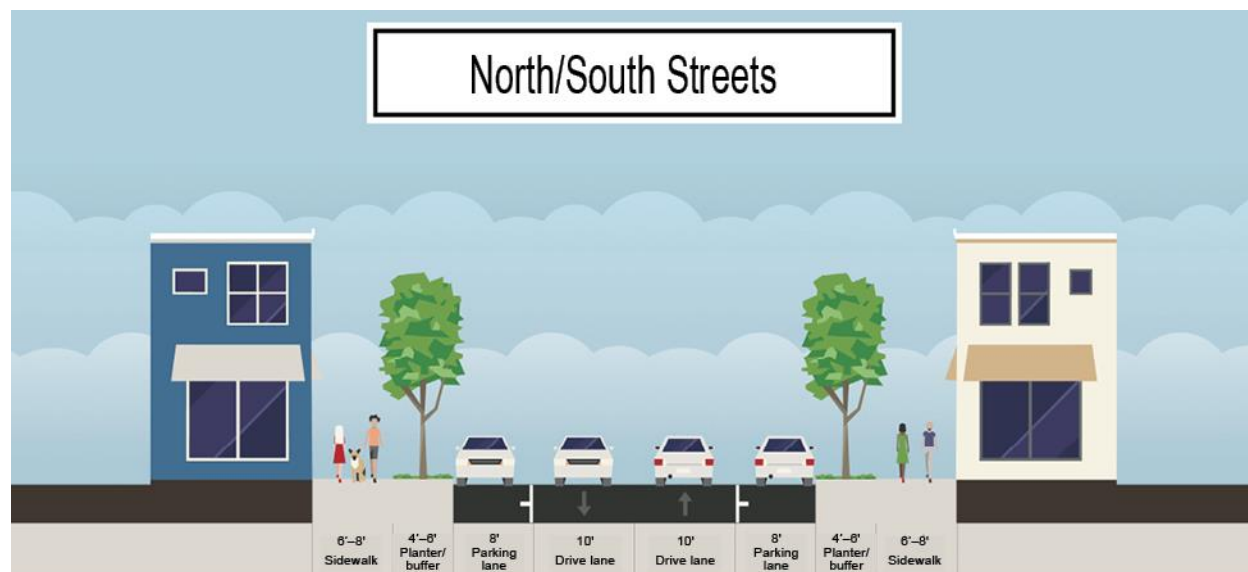


Figure 10: North/South Streets

North/South Street Future Configuration

The NDIP does not propose any changes to the right of way width or changes in travel/shared bicycle and parking lanes or curb location. The width of the planting/buffer strip and sidewalk location could change as part of future planning or development.

The planning level cost estimate for an average one block of a North/South Street is \$228,000. The cost estimate assumes:

- Pavement rehabilitation
- Replacing all of sidewalks and curbs
- Restriping

Since the work on North/South streets does not include major street reconstruction no water or sewer line replacements are included in the estimate.

HOWARD STREET – FESTIVAL STREET TREATMENT

The NDIP proposes a festival street treatment on the northern two blocks of Howard Street. No changes to right of way width or changes in travel/shared bicycle and parking lanes width or curb location are assumed for the festival street treatment in the cost estimate below. Stormwater quality treatment is included in the festival street cost estimate.

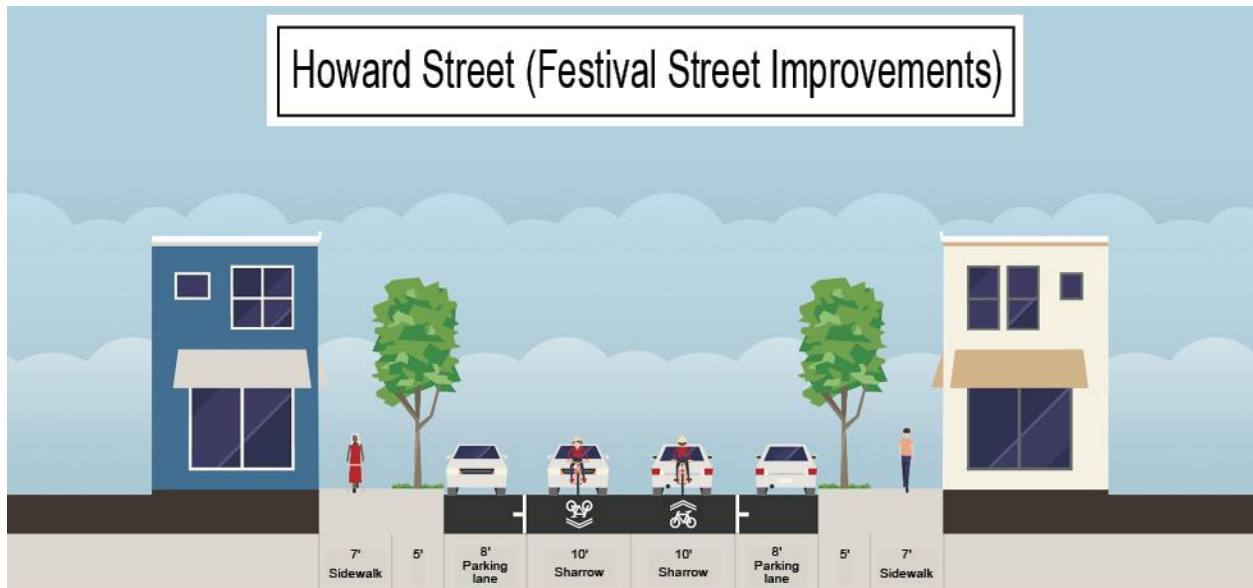


Figure 11: Howard Street

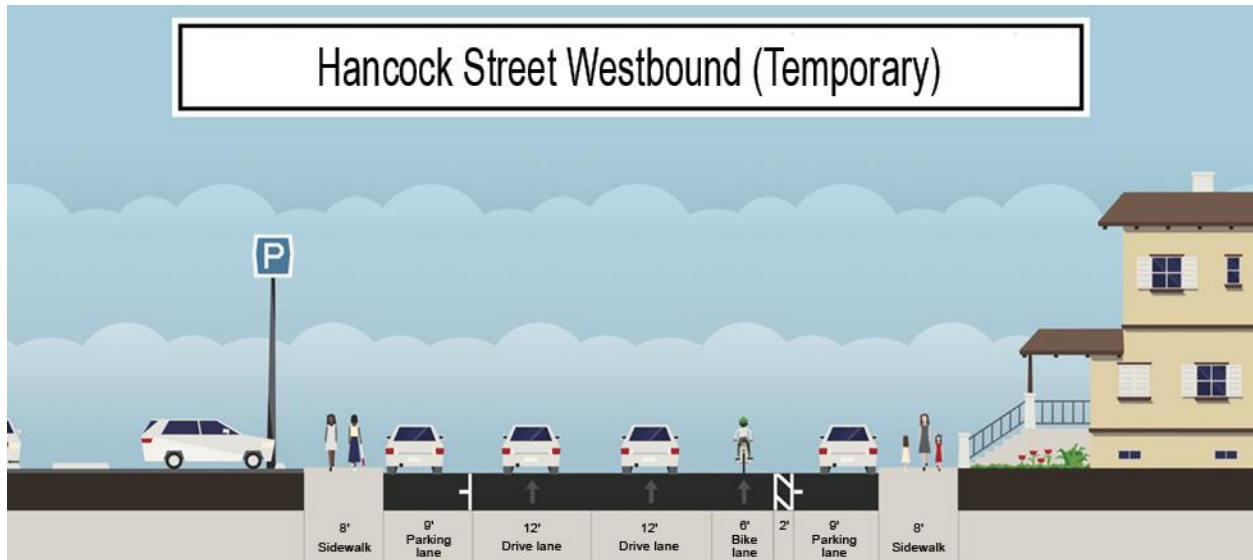
The planning level cost estimate for the two blocks of Howard Street as a festival street is \$1,980,000. The cost estimate assumes:

- Major pavement reconstruction/rehabilitation in concrete
- Replacing all sidewalk and curbs
- Pedestrian bulb outs on all intersections
- Street trees and stormwater treatment planters
- Restriping
- Stormwater collection and transmission sewers
- Replacing existing 8-inch sanitary sewer line

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Appendix A

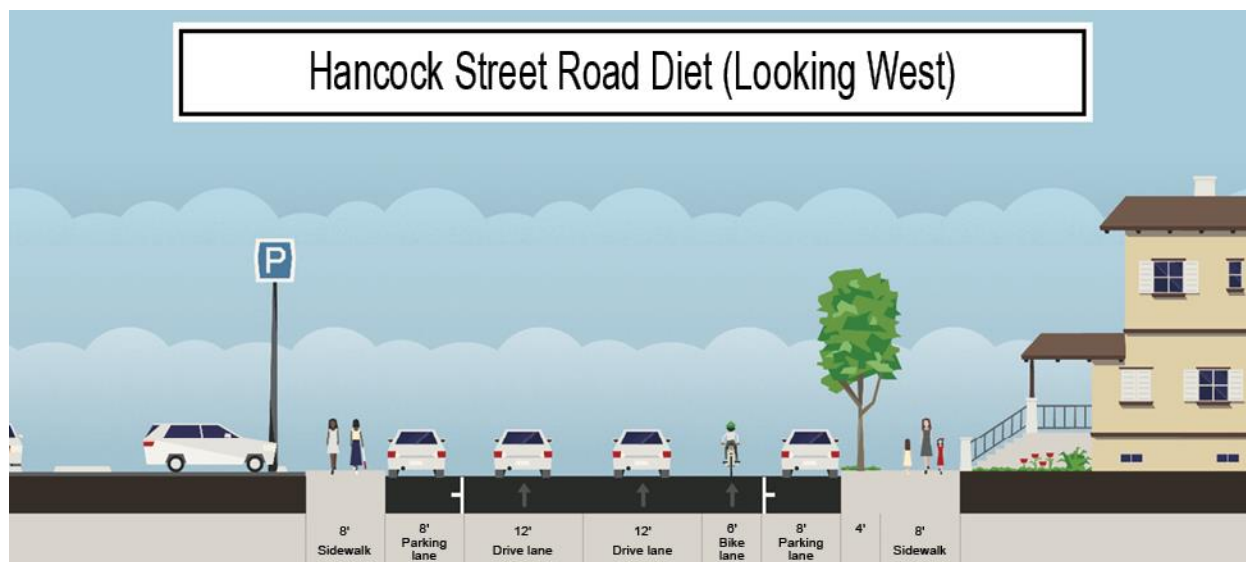
HANCOCK STREET CALCULATIONS



Appendix 1: Hancock Street Temporary Improvements

Hancock street temporary work estimate is based on receiving a grind and inlay of 3 inches, placing a movable tree planter as bulb-outs on the north side, some slight signal modification, and restriping. One 11-foot travel lane is converted into a 9-foot parking lane on the north side, and a 2-foot striped buffer for the bike lane.

Hancock St Temporary (1 block)	Amount	Unit Cost	Unit	Total Item Cost
Cold Plane Pavement Removal (3" Deep)	1467	\$3	sq yd	\$4,400
Emulsified Asphalt For Tack Coat (2 lifts)	1.3	\$300	tons	\$403
Level #, 3in Dense ACP	227	\$75	tons	\$17,025
PG 64-28 Asphalt in ACP	12	\$200	tons	\$2,400
Minor Adjustment to Manhole	2	\$1,000	each	\$2,000
Concrete Planter as Temporary Bulb Out	2	\$1,000	each	\$2,000
Thermoplastic Striping (4")	1740	\$1	ft	\$1,740
Sub-Total				\$29,968
Survey	5%			\$1,498
Temporary Traffic Control	10%			\$2,997
Mobilization	10%			\$2,997
Contingencies	50%			\$18,730
Total per Block w/ Additions				\$56,191
Design and Construction Engineering	30%			\$16,857
Total per Block				\$73,048
Signal Modifications	1	\$17,500	each	\$17,500
Total w/ Signal				\$90,548

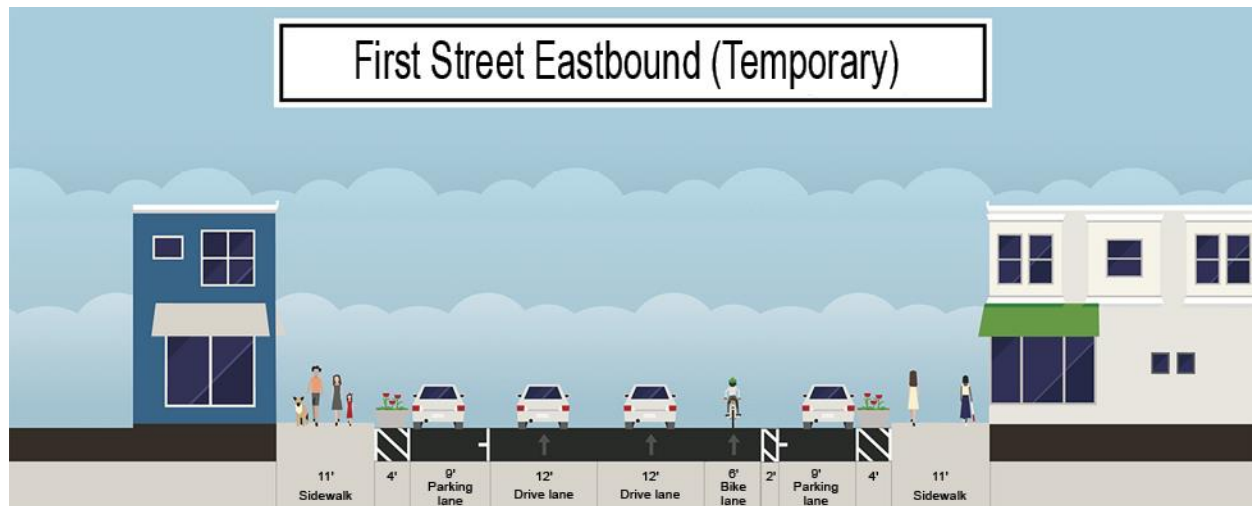


Appendix 2: Hancock Street Permanent Improvements

Hancock Street permanent work estimate is based on receiving a grind and inlay of 3 inches, removing curb on the north-side and building a 4-foot water quality planter with bulb-outs. One 11-foot travel lane is to be converted into an 8-foot parking lane and the 4-foot water quality planter on the north side. The parking lane on the south side of Hancock would be reduced to 8 feet.

Hancock St. Permanent (1 block)	Amount	Unit Cost	Unit	Total Item Cost
Cold Plane Pavement Removal (3" Deep)	1237	\$3	sq yd	\$3,712
Excavation	177	\$14	cu yd	\$2,476
Emulsified Asphalt For Tack Coat (2 lifts)	1.2	\$300	tons	\$370
Level #, 3in Dense ACP	208	\$75	tons	\$15,600
PG 64-28 Asphalt in ACP	11	\$200	tons	\$2,200
Removal of Curbs	240	\$11	ft	\$2,640
Street Trees	8	\$600	each	\$4,800
Water Quality Planters incl. Vegetation (4')	200	\$80	ln ft	\$16,000
Check Dam (5 per side)	1	\$1,500	sides	\$1,500
Curb Cuts (5 per side)	1	\$1,000	sides	\$1,000
12" Drain Pipe	100	\$90	ln ft	\$9,000
Concrete Inlets	2	\$2,000	each	\$4,000
Minor Adjustment to Manhole	2	\$1,000	each	\$2,000
North Side Bulb-outs	600	\$13	sq ft	\$7,800
Conc Curbs, Curb and Gutter	240	\$30	ft	\$7,200
Thermoplastic Striping (4")	940	\$1	ft	\$940
Sub-Total				\$81,238
Survey	5%			\$4,062
Temporary Traffic Control	10%			\$8,124
Mobilization	10%			\$8,124
Contingencies	50%			\$50,774
Total per Block w/ Additions				\$152,321
Design and Construction Engineering	30%			\$45,696
Total per Block				\$198,018
Signal Modifications	1	\$17,500	each	\$17,500
Total w/ Signal				\$215,518

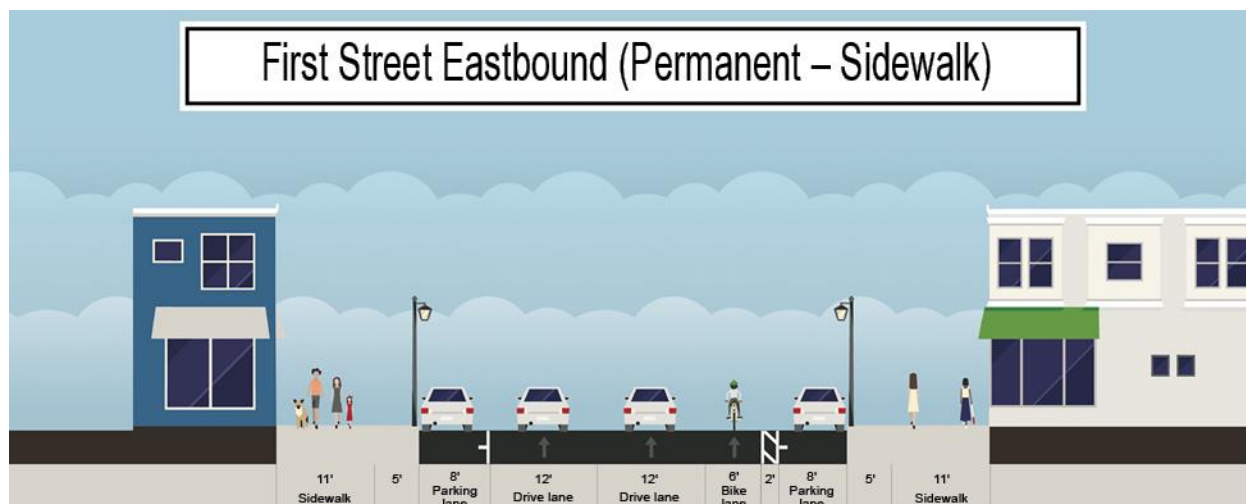
FIRST STREET CALCULATIONS



Appendix 3: First Street Temporary Improvements

First Street temporary work estimate is based on receiving a grind and inlay of 3 inches, 25% rebuild of sidewalks, drives, and curbs, some slight signal modification, and restriping. One 12-foot driving lane is to be converted into 1ft of additional parking space on each side, a 2-foot bike lane buffer, and two 4-foot concrete planter sections.

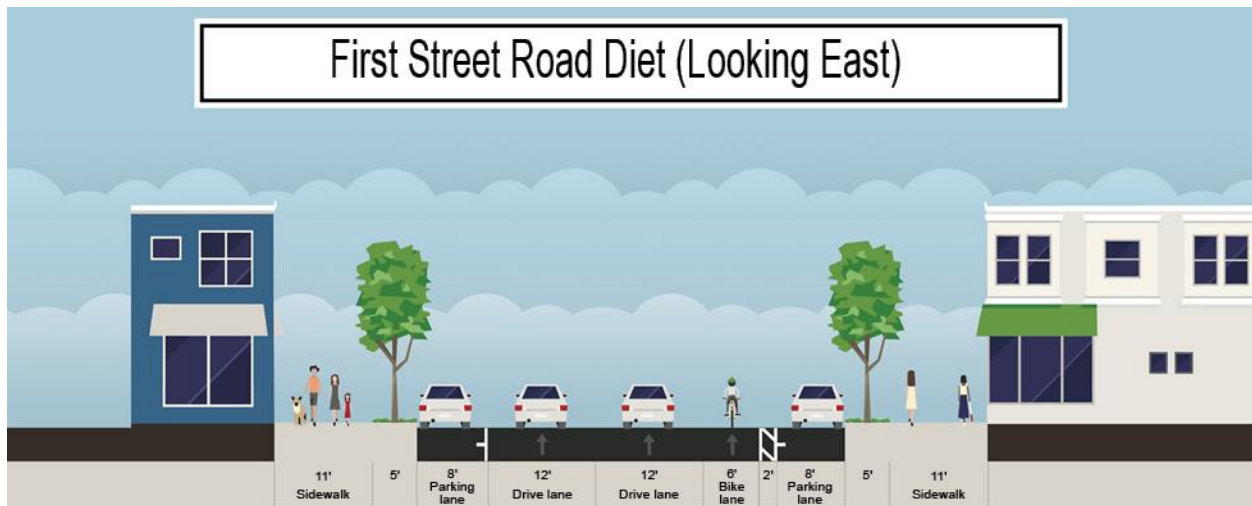
1st Street Temporary (1 block)	Amount	Unit Cost	Unit	Total Item Cost
Cold Plane Pavement Removal (3" Deep)	1779	\$3	sq yd	\$5,336
Emulsified Asphalt For Tack Coat (2 lifts)	1.6	\$300	tons	\$489
Level #, 3in Dense ACP	276	\$75	tons	\$20,670
PG 64-28 Asphalt in ACP	15	\$200	tons	\$3,000
Adjusting Inlets	5	\$1,200	each	\$6,000
Minor Adjustment to Manhole	1	\$1,000	each	\$1,000
Removal of Walks & Driveways (25%)	153	\$20	sq yd	\$3,067
Removal of Curbs (25%)	100	\$11	ft	\$1,100
Concrete Driveways, Reinf (25%)	280	\$10	sq ft	\$2,800
Concrete Curb, Std Curb (25%)	100	\$22	ft	\$2,200
Concrete Walks (25%)	1100	\$5	sq ft	\$5,500
Concrete Planter as Temporary Bulb Out	8	\$1,000	each	\$8,000
Thermoplastic Striping (4")	3000	\$1	ft	\$3,000
Sub-Total				\$62,162
Survey	5%			\$3,108
Temporary Traffic Control	10%			\$6,216
Mobilization	10%			\$6,216
Contingencies	50%			\$38,851
Total per Block w/ Additions				\$116,553
Design and Construction Engineering	30%			\$34,966
Total per Block				\$151,519
Signal Modifications	1	\$17,500	each	\$17,500
Total w/ Signal Modifications				\$169,019



Appendix 4: First Street Permanent Improvements with Sidewalk

First Street permanent work (with sidewalks) estimate is based on excavating the entire cross section, paving 6 inches of new asphalt, rebuilding the sidewalks, drives, and curbs with bulb-outs, traffic signal replacement, and restriping. One 12-foot driving lane is to be converted into 5ft of additional sidewalk on each side and a 2-foot striped buffer for the bike lane.

1st Street Permanent Sidewalk (1 block)	Amount	Unit Cost	Unit	Total Item Cost
Excavation	925	\$14	cu yd	\$12,948
Aggregate Base (12")	1533	\$20	sq yd	\$30,667
Level #, 6in Dense ACP	434	\$75	tons	\$32,550
PG 64-28 Asphalt in ACP	23	\$200	tons	\$4,600
Removal of Walks & Driveways	711	\$20	sq yd	\$14,222
Removal of Curbs	480	\$11	ft	\$5,280
12" Drain Pipe	200	\$90	ln ft	\$18,000
18" Storm Pipe	276	\$70	ln ft	\$19,320
Concrete Manhole	2	\$4,000	each	\$8,000
Concrete Inlets	4	\$2,000	each	\$8,000
Conc Curbs, Curb and Gutter	480	\$30	ft	\$14,400
Concrete Walks	7680	\$5	sq ft	\$38,400
Bulb-outs (both sides)	1200	\$13	sq ft	\$15,600
Concrete Driveways, Reinf	1120	\$10	sq ft	\$11,200
Thermoplastic Striping (4")	1740	\$1	ft	\$1,740
Sub-Total				\$234,927
Survey	5%			\$11,746
Temporary Traffic Control	10%			\$23,493
Mobilization	10%			\$23,493
Contingencies	50%			\$146,830
Total per Block w/ Additions				\$440,489
Design and Construction Engineering	30%			\$132,147
Total per Block				\$572,635
Traffic Signal Installation	1	\$190,000	each	\$190,000
Total w/ Signal				\$762,635

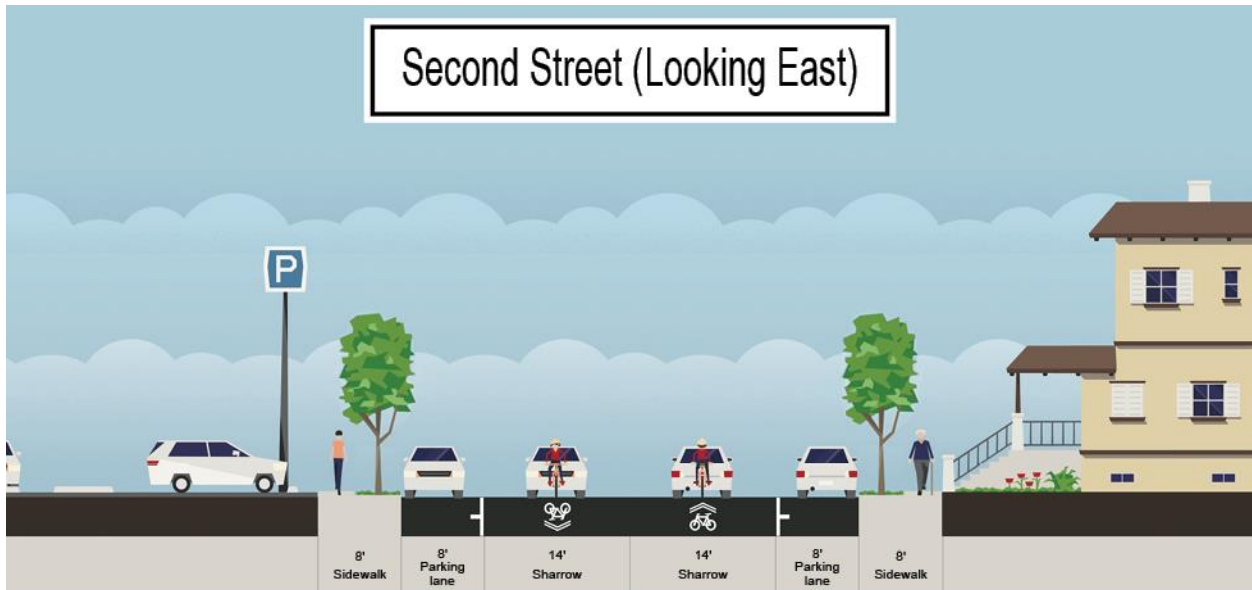


Appendix 5: First Street Permanent Work with Planter

First Street permanent work (with planter) estimate is based on excavating the entire cross section, paving 6 inches of new asphalt, rebuilding the sidewalks, drives, and curbs with bulb-outs, traffic signal replacement, and restriping. One 12-foot driving lane is to be converted into two 5-foot water quality planters and a 2-foot striped buffer for the bike lane.

1st Street Permanent Planters (1 block)	Amount	Unit Cost	Unit	Total Item Cost
Excavation	925	14	cu yd	\$12,948
Aggregate Base (12")	1533	20	sq yd	\$30,667
Level #, 6in Dense ACP	434	75	tons	\$32,550
PG 64-28 Asphalt in ACP	23	200	tons	\$4,600
Removal of Walks & Driveways	711	20	sq yd	\$14,222
Removal of Curbs	480	\$11	ft	\$5,280
Street Trees	8	\$600	each	\$4,800
Water Quality Planters incl. Vegetation (5')	400	\$90	ln ft	\$36,000
Check Dam (5 per side)	2	\$1,500	sides	\$3,000
Curb Cuts (5 per side)	2	\$1,000	sides	\$2,000
12" Drain Pipe	200	\$90	ln ft	\$18,000
18" Storm Pipe	276	\$70	ln ft	\$19,320
Concrete Manhole	2	\$4,000	each	\$8,000
Concrete Inlets	4	\$2,000	each	\$8,000
Conc Curbs, Curb and Gutter	480	\$30	ft	\$14,400
Concrete Walks	5280	\$5	sq ft	\$26,400
Bulb-outs (both sides)	1200	\$13	sq ft	\$15,600
Concrete Driveways, Reinf	1120	\$10	sq ft	\$11,200
Thermoplastic Striping (4")	1740	\$1	ft	\$1,740
Sub-Total				\$268,727
Survey	5%			\$13,436
Temporary Traffic Control	10%			\$26,873
Mobilization	10%			\$26,873
Contingencies	50%			\$167,955
Total per Block w/ Additions				\$503,864
Design and Construction Engineering	30%			\$151,159
Total per Block				\$655,023
Traffic Signal Installation	1	\$190,000	each	\$190,000
Total w/ Signal				\$845,023

SECOND STREET CALCULATIONS

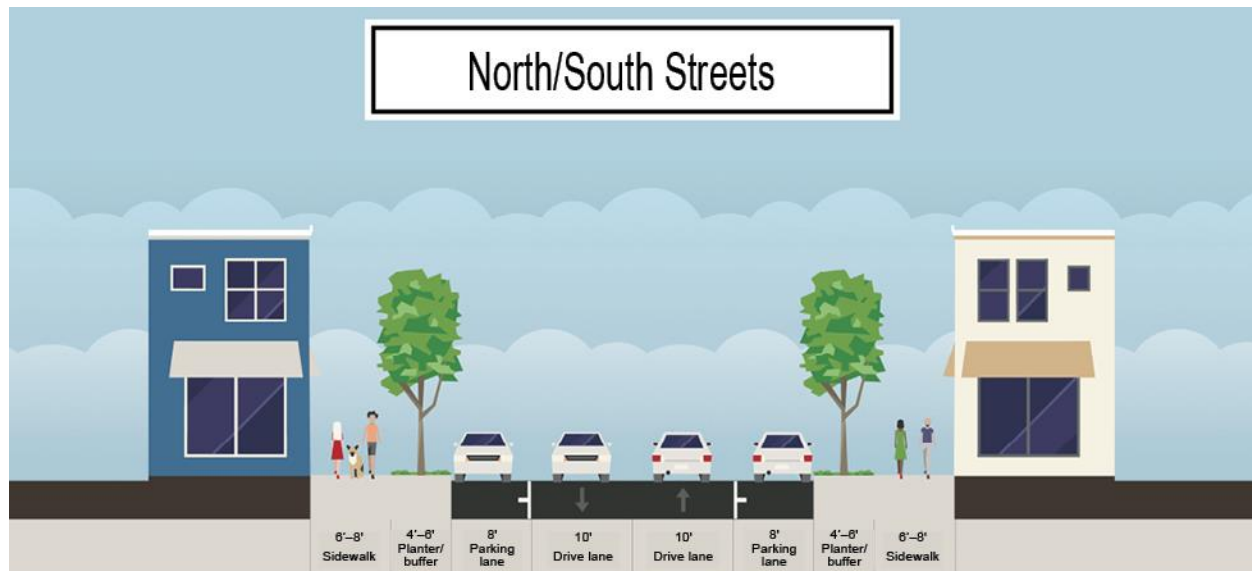


Appendix 6: Second Street Future Buildout

Second Street estimate is based on receiving a grind and inlay of 3 inches to fix crowning issues, 25% rebuild of curbs, and restriping. The cross section is not changed.

2nd Street Improvements (1 block)	Amount	Unit Cost	Unit	Total Item Cost
Cold Plane Pavement Removal (3" Deep)	1288	\$3	sq yd	\$3,864
Emulsified Asphalt For Tack Coat (2 lifts)	1.2	\$300	tons	\$354
Level #, 3in Dense ACP	200	\$75	tons	\$15,000
PG 64-28 Asphalt in ACP	10	\$200	tons	\$2,000
Adjusting Inlets	2	\$1,200	each	\$2,400
Minor Adjustment to Manhole	1	\$1,000	each	\$1,000
Concrete Curb, Std Curb (25%)	100	\$22	ft	\$2,200
Street Trees	8	\$600	each	\$4,800
Thermoplastic Striping (4")	540	\$1	ft	\$540
Sub-Total				\$32,158
Survey	5%			\$1,608
Temporary Traffic Control	10%			\$3,216
Mobilization	10%			\$3,216
Contingencies	50%			\$20,099
Total w/ Additions				\$60,297
Design and Construction Engineering	30%			\$18,089
Total per Block				\$78,386

NORTH/SOUTH STREET CALCULATIONS



Appendix 7: North/South Streets

The North/South Street estimate is based on receiving a grind and inlay of 3 inches complete rebuild of sidewalks, drives, and curb, as well as restriping. The cross section is not changed.

North/South Street Improvements (1 block)	Amount	Unit Costs	Unit	Total Item Cost
Cold Plane Pavement Removal (3" Deep)	1000	\$3	sq yd	\$3,000
Emulsified Asphalt For Tack Coat (2 lifts)	0.9	\$300	tons	\$275
Level #, 3in Dense ACP	155	\$75	tons	\$11,625
PG 64-28 Asphalt in ACP	8	\$200	tons	\$1,600
Adjusting Inlets	3	\$1,200	each	\$3,600
Minor Adjustment to Manhole	2	\$1,000	each	\$2,000
Removal of Walks & Driveways	735	\$20	sq yd	\$14,702
Removal of Curbs	456	\$11	ft	\$5,016
Street Trees	8	\$600	each	\$4,800
Concrete Driveways, Reinf	616	\$10	sq ft	\$6,160
Concrete Curb, Std Curb	456	\$22	ft	\$10,032
Concrete Walks	6000	\$5	sq ft	\$30,000
Thermoplastic Striping (4")	540	\$1	ft	\$540
Sub-Total				\$93,350
Survey	5%			\$4,668
Temporary Traffic Control	10%			\$9,335
Mobilization	10%			\$9,335
Contingencies	50%			\$58,344
Total w/ Additions				\$175,032
Design and Construction Engineering	30%			\$52,510
Total per Block				\$227,541

HOWARD STREET FESTIVAL CALCULATIONS



Appendix 8: Howard Street Festival

The Howard Street Festival estimate is based on complete roadway removal, replacing with 1-foot aggregate base, 2 inches of asphalt, 4 inches of concrete, a complete rebuild of sidewalks, drives, and curb, as well as restriping. The existing 12-foot planter strip/sidewalk area is replaced by a 5-foot storm water quality planter and 7 feet of sidewalk in addition to bulb-outs at all intersections.

Howard Street Improvements (2 blocks)	Amount	Unit Cost	Unit	Total Item Cost
Excavation (18")	1000	\$14	cu yd	\$14,000
Aggregate Base (12")	2000	\$20	sq yd	\$40,000
Level #, 2in Dense ACP	207	\$300	tons	\$62,100
PG 64-28 Asphalt in ACP	10	\$75	tons	\$750
PLN CONC PVMT DWLD 4" TH	2000	\$170	sq yd	\$340,000
Street Trees	8	\$600	each	\$4,800
Water Quality Planters incl. Vegetation (5')	840	\$90	ln ft	\$75,600
12" San Sewer Pipe	500	\$65	ln ft	\$32,500
12" Drain Pipe	400	\$90	ln ft	\$36,000
18" Storm Pipe	500	\$70	ln ft	\$35,000
Check Dam (5 per side)	4	\$1,500	sides	\$6,000
Curb Cuts (5 per side)	4	\$1,000	sides	\$4,000
Concrete Inlets	8	\$2,000	each	\$16,000
Concrete Manhole	4	\$4,000	each	\$16,000
Removal of Walks & Driveways	1607	\$20	sq yd	\$32,142
Removal of Curbs	912	\$11	ft	\$10,032
Concrete Driveways, Reinf	1232	\$10	sq ft	\$12,320
Concrete Curb, Mountable Curb	912	\$28	ft	\$25,536
Concrete Walks	3480	\$5	sq ft	\$17,400
Concrete Bulb-outs	2400	\$13	sq ft	\$31,200
Thermoplastic Striping (4")	1080	\$1	ft	\$1,080
Sub-Total				\$812,460
Survey	5%			\$40,623
Temporary Traffic Control	10%			\$81,246
Mobilization	10%			\$81,246
Contingencies	50%			\$507,788
Total w/ Additions				\$1,523,363
Design and Construction Engineering	30%			\$457,009
Total per Block				\$1,980,372

APPENDIX

G

URBAN DESIGN AND STREETScape DEVELOPMENT STRATEGIES

Tech Memo



DATE: September 15, 2016

TO: Dave Siegel
Leland Consulting Group
dsiegel@lelandconsulting.com

FROM: Gill Williams
GreenWorks, PC
gillw@greenworkspc.com

PROJECT: Newberg Downtown Improvement Plan

RE: Urban Design & Streetscape Technical Memo

NEWBERG DOWNTOWN IMPROVEMENT PLAN **Urban Design & Streetscape Development Strategies**

Executive Summary

Successful urban design and streetscapes help foster strong, livable communities. They are physically comfortable and safe; they bolster economic growth and stability and help improve the natural environment. They are accessible to everyone, they help facilitate chance meetings, and they bring the citizens of the community together. These urban spaces are flexible and can accommodate a variety of activities and events like farmer's markets, art fairs, political rallies and parades. These spaces should accommodate different modes of transportation and ease traffic congestion. Foremost, these spaces and landscapes should reflect the spirit and identity of a community.

GreenWorks has been tasked with the development of streetscape and urban development strategies that will guide the City of Newberg and private landowners in the development of the public realm in the downtown core. These strategies will describe the desired physical structure of the Newberg Downtown Area and how various streetscape and urban design elements will foster the desired behaviors, interactions, civic pride and ultimately capital and social investment. The implementation of the streetscape and/or urban design elements, as a part of larger projects, can be scaled relative to the size and location of specific projects or designed to leverage the unique character of certain areas.

Implemented as part of public or private development, urban design and streetscape elements are described in four distinct applications. Each application describes desired outcomes and identifies specific improvements to achieve these outcomes. The applications include:

- **Traffic Calming Features**
- **Pedestrian Amenities**
- **Civic Identity and Wayfinding**
- **Green Street Strategies**

In support of the established vision for the City of Newberg and the development of the 'Big Ideas' discussed previously, this memo identifies near term opportunities where urban design and streetscape elements can be further defined, planned and deployed. Near term opportunities and relevant applications include:

- **Develop Streetscape and Wayfinding Plan** (Traffic Calming, Civic Identity, Wayfinding, Streetscape Design and Street Furniture)
- **Develop the West End Gateway** (Civic Identity and Wayfinding)
- **Develop Secondary Gateway at Highway 240 @ Mill District** (Civic Identity and Wayfinding)
- **Development of an Art Walk** (Pedestrian Amenities, Civic Identity and Wayfinding)
- **Develop Urban Design Standards** (All)
- **Develop Public Space at Butler Property** (Pedestrian Amenities)

Moving forward the streetscape and urban design can be implemented incrementally as capital resources become available or development occurs. Interim guidelines have been articulated at the end of this memo that will assist the City of Newberg with the integration of short term solutions to the downtown streetscape. In addition this memo identifies and suggests timing for supplemental planning and design efforts necessary to codify and standardize the urban design and streetscape elements.

URBAN DESIGN & STREETScape APPLICATIONS

Traffic Calming Features

A great pedestrian environment relies on creating streets that are safe for pedestrians and calm traffic through a city's neighborhoods. Traffic calming measures such as bulb-outs and enhanced crosswalks slow traffic and discourage neighborhood short cuts. Many traffic calming features contribute to the aesthetic and environmental quality of the street by incorporating landscape plantings, site furnishings such as bike racks and benches, and vegetated stormwater management features.

CURB EXTENSIONS (BULB-OUTS)

Curb extensions (also known as bulb-outs) extend the sidewalk into the parking lane to narrow the roadway and provide additional pedestrian space at critical locations. They improve pedestrian safety by increasing pedestrian visibility, slowing vehicular traffic, and shortening crossing distance.



Curb extensions can be located at street corners, or mid-block, and can be lengthened along the roadway to increase usable public space for community gathering and socializing. They can also accommodate transit shelters, benches, landscaping, and other pedestrian furnishings and amenities.

Other additional benefits of curb extensions include a reduction in illegally parked cars at corners and crosswalks, an increased ability to provide two curb ramps per corner, and potential for tightening corner curb radii that slow turning vehicles.

Many potential locations for curb extensions exist throughout the downtown core and project areas, primarily at block corners. Strategic planning could determine feasible mid-block curb extension locations. Priority locations for curb extensions may be identified in the Newberg streetscape plan.



MID-BLOCK CROSSINGS

Streets with long block faces and widely-spaced intersections sometimes limit crossing opportunities for pedestrians. Mid-block crossings can provide convenient crossing opportunities for pedestrians when other crossing opportunities are distant, or where a destination creates a high crossing demand.

Mid-block crossings should be highly visible, and employ markings or materials with high contrast that

clearly delineate the edge of the pedestrian zone. Signage and/or signalization, flashing beacons or other special treatments like special paving materials or raised crossings help increase visibility of crossings.

Site specific analysis and planning would determine feasible locations for mid-block crossings throughout the project area, and should consider whether it could contribute to delays to traffic congestion or delay issues.



CROSSWALK ENHANCEMENTS

Special paving materials, articulated scoring patterns, integral concrete colors, bollards, lighting, and landscape plantings can significantly enhance the pedestrian experience along a streetscape.

These enhancements visually break the monotony of asphalt streets, extend the pedestrian realm, and highlight key civic and commercial areas.

Enhancements should use textures, patterns, and colors to articulate the crossings, but should

be slip-resistant, and avoid creating an uncomfortable surface for those using wheelchairs or other mobility devices. Pedestrian crossings should be designed and constructed with paving materials that contrast in color and texture to clearly designate pedestrian paths of travel.

Opportunities for crosswalk enhancements exist throughout downtown Newberg and adjacent project areas at most intersections. The feasibility of special paving materials, textures, and colors should be scrutinized along high-volume traffic arterials such as Highway 99W/First Street and Hancock Street.

INTERSECTION TREATMENTS

Like crosswalk enhancements, intersection treatments can highlight key civic and commercial locations. They can include special paving materials, color, and patterns, and can be combined with crosswalk enhancements.

Since they are typically more costly to build than standard roadway treatments, intersection treatments could be considered at key locations important to a city grid pattern, along commercial corridors at key intersections, at mid-block crosswalks, or at key civic locations such as civic buildings or entrances to open spaces.



SPEED TABLES

Speed tables (also referred to as raised crosswalks) are long raised speed humps in the roadway with a flat section in the middle and ramps on each end that enable pedestrians to cross at mid-block locations without the need for curb ramps. They are intended to visually indicate pedestrian crossings while slowing traffic down, increasing the likelihood that the driver yields to the pedestrian.

Speed tables are typically 22 feet long in the direction of travel with 6 foot wide ramps on each end, and a 10 foot flat section in the middle, though the length of the middle section can increase if preferred to address a specific situation. Crosswalk enhancements such as special paving colors, patterns, and textures should be employed at speed tables to increase their visibility.

Speed tables are not recommended on high volume roadways such as Highway 99W/First Street and Hancock Street, but are an ideal application on local streets in the project area.

Pedestrian Amenities

Streetscape enhancements like special sidewalk paving, street furnishings, pedestrian-scale lighting, and awnings or building overhangs are important features for pedestrians to feel welcome and that the street is a comfortable place to be. Building overhangs and awnings additionally provide protection from the elements during the wet season. These kinds of amenities add functionality and vitality to the pedestrian realm, and provide visual interest. A vibrant pedestrian realm can increase public safety, increase the value of adjacent real estate, and sustain the health of local businesses. These kinds of streetscape features can be installed by the City, neighborhood or local business associations, or by individual property owners.

SIDEWALK PAVING MATERIALS: CONCRETE

Concrete sidewalks continue to be the default sidewalk surfacing employed in most right-of-way development projects throughout the United States. Compared to asphalt, concrete is comparable in cost, is more durable and attractive than asphalt, can be formed and scored in virtually any pattern, and is more reflective and, therefore, does not contribute to urban heat island effect.

Additionally, concrete paving can be articulated with different textured finishes (stamped, lightly broomed, floated, exposed aggregate, etc.), which also add a degree of slip-resistance. Integral color concrete is another method for highlighting special pavement areas.

Concrete sidewalks are appropriate throughout the entire project area; though specially articulated concrete is most appropriate along downtown, commercial, and other special or small streets, such as throughout the core downtown project areas.

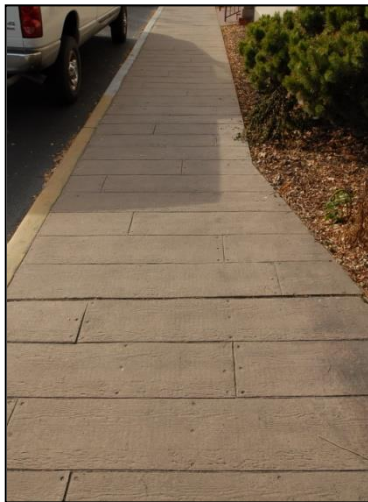
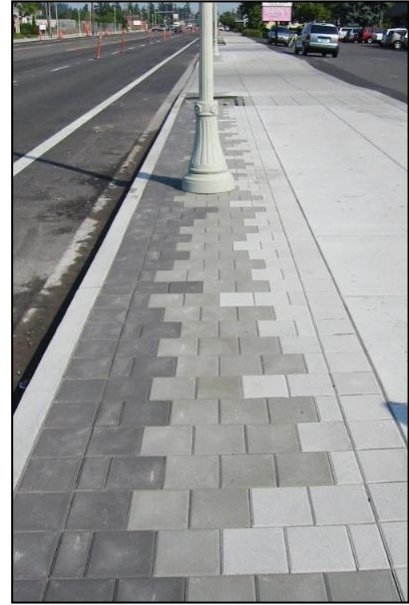
SIDEWALK PAVING MATERIALS: UNIT PAVERS

Special paving treatments can significantly enhance the aesthetics of public spaces in a city, give circulation areas a strong sense of place, and establish a hierarchy of public spaces.

Unit pavers can be selected from a range of options, and include natural stone pavers, concrete unit pavers, asphalt pavers, and clay brick pavers. All of these pavers are typically available in a number of different shapes, colors, and textures. Regardless of the material, unit pavers are typically installed in either sand-set or mortar-set applications.

Permeable concrete unit pavers can provide both functional and aesthetic appeal in that they can help manage and treat stormwater runoff. These pavers often have wider joints and thus a more variable surface and should be avoided along primary public circulation routes.

Unit pavers could be employed in a variety of configurations and at a number of different locations in sidewalks and crosswalks throughout the project area.



SIDEWALK PAVING MATERIALS: COMBINATIONS

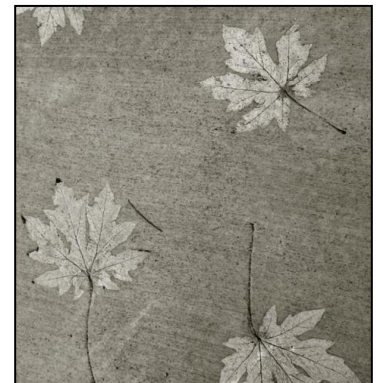
Utilizing special paving treatments like unit pavers or stamped/colored concrete, with standard concrete is another effective tool in improving the sidewalk aesthetics and creating sense of place in public areas while minimizing costs. The combinations can be employed to create a pattern that helps to break up the scale of larger streets to a more pedestrian-scaled experience. The pattern can be informed by other repetitious streetscape elements such as street trees and seating areas, or can help to reinforce a “theme” established in certain downtown districts.

Paving surfaces that integrate unit pavers into the design and layout must address potential ADA-related issues regarding slip or trip hazards, potential for vibratory effects on those in wheelchairs, and clarity of the paving surface for those with visual impairment. Accent paving therefore may be most appropriate in the downtown core areas throughout the furnishing zone of sidewalks, which is between the back of curb and the pedestrian through zone, or in other areas outside of the path of travel.

SIDEWALK PAVING MATERIALS: ARTISTIC

Pavement with innovative and artistic patterns can highlight significant civic and/or cultural locations, create a varied and pleasant pedestrian experience, and be expressive of a city’s historical or cultural heritage or physical setting. The Camelia, the City’s official flower, could be highlighted.

This type of paving might be considered in unique locations throughout the project areas, such as in front of city hall or along the north south civic



corridor zone.

PEDESTRIAN LIGHTING

Pedestrian lighting primarily functions to illuminate pedestrian areas such as sidewalks, and typically is less than 18' tall, and typically supplements roadway lighting, which is oriented towards illuminating the roadway, intersections, and crosswalks.

There are a number of benefits associated with pedestrian lighting in the public right-of-way. It can be a key organizing streetscape element that defines a positive daytime and nighttime character of public urban spaces. Well-lit streetscapes can extend the hours that a business district is active, which can promote economic growth and stability. It can provide for better visibility and safety during nighttime hours, improving safety for vehicles and pedestrians. Additionally, it can encourage walking as part of an active lifestyle, and improve access to transit and other services.



The styles and designs of pedestrian light poles and fixtures are virtually limitless, and can help reinforce a neighborhood, district or civic identity.

Along highway 99W/First Street and Hancock Street, pedestrian lighting could be implemented along both corridors to help bring the scale down to a pedestrian level, encouraging pedestrians, defining pedestrian routes, and increasing safety.

Pedestrian-scale lighting could also be implemented in a variety of ways throughout the project areas to help foster a safe, vibrant nighttime business district. In addition, it could be used to help illuminate special opportunity areas oriented towards pedestrians and to help establish a more cohesive sense of place and identity for these areas.

SEATING: SEAT WALLS

An abundance of pedestrian seating fixtures and seating areas along a streetscape creates a comfortable, usable, and active public realm where people can meet and socialize, rest, read, or people-watch. It is a fairly simple and straightforward element that can significantly help to create a sense of



place, and encourages people to linger, which is a definitive characteristic of a successful streetscape.

Seating can take many forms, two of which are seat walls and benches. Seat walls are typically short (16-22" tall) free-standing or retaining walls, which have a surface material suitable for sitting integral to the design of the wall. In addition, seat walls can be

designed to create focal points, direct views, and for pedestrian traffic flow.

Seat walls are typically constructed with a concrete or concrete masonry unit (CMU) base, and can either have an articulated concrete surface, or be clad with other materials such as wood, stone, or precast concrete slabs. They can also be very expressive, and can be functional artistic elements in the landscape that help define pedestrian seating areas. Seating surfaces with dark colors or rough materials should be avoided. The design could incorporate notches to discourage skateboarding.

Due to their permanence, seat walls should be located at special opportunity areas oriented towards pedestrians, primarily in the downtown core project areas, which could be street corners, areas around district gateway locations, or key intersections.

SEATING: BENCHES

Benches are typically “off the shelf” products purchased from manufacturers in multiple quantities, and are distributed evenly along a streetscape corridor outside of a path of travel, or clustered at special opportunity areas. They can be made out of wood, metal, precast concrete, or stone, or customized in a variety of ways as a functional art element, or to help reinforce a civic or neighborhood identity. Often times the style of bench in a downtown district belongs to a larger



“family” of site furnishings, which include lighting, bike racks, bollards, and waste receptacles that, when used collectively, further unify a streetscape. In other areas, individual benches may be more unique. For example, benches could be created in Newberg by local artists as part of a local effort to incorporate a combination of public art and pedestrian amenities into the area.

Benches are appropriate along all corridor segments, and should be located outside of the path of travel, at transit stops, and at special opportunity areas.

STREET FURNISHINGS: BICYCLE RACKS

Bicycle racks are an essential functional element for those who travel by bike for protections against theft. Additionally, they are an effective aesthetic element that can help visually unify a streetscape. Ample bicycle parking encourages ridership and facilitates a healthy lifestyle. It is most



effective when it is located close to destinations, is easy to find, not hidden from public view, and is accessible.

Bicycle racks should be located with ample area for bike parking (typically 2-feet wide by 6-feet deep) on each side of the rack. More space may be needed if the City wants to accommodate larger bicycles (e.g.,

“cargo bikes”). They should be located in areas that provide enough room for riders to dismount and manage their cargo, and do not conflict with pedestrian through zones. They are typically constructed of metal, and should be designed and detailed in a way that supports the bicycle, will not damage it with sharp corners, and will fit most U-bar style bike locks. Options for customizing the rack to reflect civic or neighborhood character are available on most bike rack designs.

Bike racks are appropriate throughout each of the primary and secondary corridor segment areas, and should be located outside of the path of travel, and at special opportunity areas.

STREET FURNISHINGS:

WASTE RECEPTACLES

Trash bins and recycle bins in the pedestrian right-of-way are essential to maintaining a clean, healthy city. Their presence discourages littering, thereby improving the aesthetics of a



streetscape. Though these elements are utilitarian, attention to their design and integration into the overall streetscape character, in addition to careful placement, can enhance the public realm and adds to a sense of place.



Waste receptacles should be considered as one of a “family” of streetscape furnishings, which also can include benches, bike racks, and street lights. They should be made from durable, high quality materials, and should be graffiti resistant as is feasible.

Waste receptacles are appropriate throughout each of the project corridor areas. They should be located close to intersections, out of the pedestrian through zone, as well as high activity areas and special opportunity areas. A maximum of one receptacle every 200 feet along a block face, and a maximum of four receptacles per intersection (one per corner) are recommended.

STREET FURNISHINGS: DRINKING FOUNTAINS

Drinking fountains provide drinking water for pedestrians, offer hydration and nourishment, and encourage a healthy lifestyle. They are also an environmentally sound alternative to bottled water, which requires much more energy to produce.



Drinking fountains should be considered as one of a “family” of streetscape furnishings, which also can include waste receptacles, bike racks, and benches. They should be made from durable, high quality materials, and should be graffiti resistant as is feasible. They should also consider additional bowls that are accessible by those in wheelchairs, as well as optional dog bowls.

Drinking fountains are most appropriate along commercial streets with a pedestrian presence, such as throughout the downtown project areas. They should be located within the furnishing zone, outside of the path of travel, and should be located with enough space around them to accommodate wheelchairs. Drinking fountains should also be provided in areas that host special events such as community festivals or activities during warmer months.

STREET FURNISHINGS: BOLLARDS

A bollard is a short vertical post or similar element that is most often used to separate pedestrians from a vehicular environment. They can be used to add color and visual interest to streetscapes, and are most effective when used in multiples and lined up to discourage vehicles from encroaching on pedestrian spaces like sidewalks or plazas. They are most often used when the surface of the pedestrian zones is at the same grade and elevation as the adjacent vehicular areas.



Bollards could be used in the downtown project areas where vehicles attempting to park could damage sidewalk structures, trees/plantings, furnishings, or adjacent private property. They could be used on curb extensions (either mid-block or at intersection corners), or wherever pedestrians are in close proximity to travel lanes.

STREET FURNISHINGS: TREE GRATES

Trees need air, soil, water, and space to grow. Unfortunately, soil conditions in most urban environments lack each of these critical elements trees need to thrive. Tree grates provide space for tree roots to grow while allowing pedestrian traffic over the tree planting area, which is particularly effective along narrow sidewalks where pedestrian space can be limited. They also help to suppress weed growth and trash accumulation in the tree planting areas. Tree grates come in a large array of shapes, sizes, and materials, but should all be ADA-compliant while allowing for air and moisture to enter the tree planting area.



STREET FURNISHINGS: DECORATIVE RAILINGS

Decorative railings can be used to define pedestrian walkways, provide separation between pedestrians and vehicular or planting areas, and protect pedestrians from long falls into adjacent sunken areas. They can be made from a number of materials including wood, metal, and sometimes stone or precast concrete. They can be highly ornamental, or utilitarian in character, but should complement existing architectural features or other site amenities.

STREET TREES

Street trees are an integral component to a successful, vibrant, pedestrian friendly streetscape. Their social, economic, and environmental benefits are innumerable, and include softening hard urban edges, shading streets and buildings, enhancing neighborhood beauty, filtering the air, and absorbing carbon dioxide. Trees have also been proven to reduce crime, improve public health, reduce energy consumption, and improve adjacent real estate values.

Street trees come in many shapes, sizes, colors, and textures, and can be used in a variety of ways in groups and as individual specimens to reflect a city's natural setting, create focal points, establish visual rhythm, and provide needed shade in areas with excessive pavement.

Site characteristics present in each of the "districts", however, can significantly impact the ability to accommodate street trees as part of this project. Narrow rights-of-way and sidewalks can limit tree placement and form. Overhead utility lines, underground utility pipes, street lights, and street signs present additional challenges to locating street trees.

Newberg benefits from an extensive city-wide tree canopy cover, and dozens of existing street trees planted at sidewalk grade are observed throughout the downtown core. The trees vary in age, condition, and canopy shape. When establishing a street tree plan special attention should be given to potential "nuisances" created by certain species such as excessive leaf litter, or berries or fruit that either stain concrete or other surfaces or attract unwelcome species of birds.

Some species of trees suitable for urban environments may have rooting systems that are shallower than most, making those potential candidates for planting in areas with shallow soils. Since shallow-rooting trees are more likely to heave and crack sidewalks than deeper-rooted trees, however, ample planting area must be given to allow root growth, increases in trunk diameter, and root crown flare.

PLANTING AREAS

Planting areas along streetscape corridors is an effective, attractive way to enhance the pedestrian experience, improve adjacent property values, and indicate a sense of civic care for a neighborhood. Some planting areas can also manage stormwater runoff.



Like street trees, planting areas can take many forms. They can be located at-grade, visually breaking up the paving area and providing focal points of interest, or they can be raised above the grade of the sidewalk in planters to elevate the green to the pedestrian's eye and help to create distinct spaces. They can be containerized, either in pots on or adjacent to sidewalks or elevated in planter baskets that hang off of other streetscape elements like light posts or wayfinding signs. Plantings can also be located in roadway medians at busy highway intersections or crosswalks to help with traffic calming and pedestrian safety.



As with installing street trees, certain site conditions in each of the corridor segments can limit the ability to implement planting areas. Shallow soils, vehicular sight lines, and narrow rights-of-way all have an impact on where and how planting areas might be located.

Civic Identity & Wayfinding

Cities thrive when they capitalize on their unique strengths. The manner in which these strengths are represented -- either through gateway monuments, public art, or wayfinding signs -- can strengthen civic identity which gives added value to a downtown area beyond the physical elements that make up that area. A successful civic identity and wayfinding system enhances the visitor's relationship to those downtown areas, resulting in frequent visitation, loyalty, and an ongoing interest in the vitality of that downtown. It is because of these benefits that a Streetscape and Wayfinding Plan should be the first order of business. The City of Newberg has the opportunity to standardize and begin implementation of the urban design elements via both public and private development.

GATEWAY MONUMENTS

Gateway monuments are elements that mark the entrance to a district or neighborhood. They are typically larger in scale, are highly visible, and can take many different forms. Typical gateway monuments range from arched gateway markers that span over the roadway, to sculptural or iconic elements, to expansive landscape areas that visitors pass through. They are typically more sculptural in form and function at a district or neighborhood scale.

Gateway markers should be located at entry points to districts or neighborhoods or at transitions between one



roadway or land use type to another. They should be highly visible and attract attention, and integrate culturally relevant elements that are appropriate for the area.

Appropriate locations for gateway monuments include the transition between the Highway 99W and the First Street/Hancock Street couplet, and at primary perpendicular transition zones.

SIGNAGE

Streetscape signage can be an effective tool in unifying the character of a neighborhood or district. They can mark entry points or neighborhood edges, give directions to destinations, include maps and directories, and include relevant neighborhood information. Streetscape signage types include neighborhood orientation signs, directions signs, and interpretive signs, and can significantly enhance a visitor's experience in a downtown area.



Neighborhood orientation signs have a distinctive design and offer neighborhood information including maps and directories that guide people to various neighborhood amenities such as historic buildings and sites, cultural institutions, shopping centers, recreation facilities, and public services such as parking and rest rooms.



Directional signs can include typical street signs and wayfinding signs, and help orient pedestrians to significant destinations. They should include local destination names and directional arrows or markers, and often have maps that clearly show the current location. Furthermore, they should maintain a simple and coordinated design, be legible from a distance, and reflect the character of the surrounding neighborhood or district. (Note: The Oregon Department of Transportation (ODOT) has their own requirements on state highways.)



Interpretive signs provide information about nearby significant cultural, natural, historical, or architectural features or icons. They can be made of many different materials including metal, wood, stone, or acrylic, can be sculptural in form, be a traditional sign, or be installed flush with the paving surface. They should be unique and eye-catching, and capture the character and spirit of the surrounding neighborhood or district.

Streetscape signage elements are appropriate throughout the downtown Newberg area. They should be located at key intersections and special opportunity areas outside of the path of travel. They should be easy to see from a traveling vehicle but also are intended to be viewed by pedestrians in close proximity. Wayfinding signs could also be used at strategic locations to direct people towards destinations both within and outside the downtown

planning area, including the Mill District; along Blaine Street leading to the Willamette River and connections to George Fox University as well as destinations in wine country.

BANNERS

Banners can enhance civic identity by adding festiveness and variety to commercial and arterial roadways. They can help distinguish specific neighborhoods, promote cultural awareness, or provide information on civic events.

Banners are typically hung on street lights or utility poles, but can also be mounted on freestanding poles. They should be made of durable, UV-resistant materials such as vinyl or acrylic fabric, though they can also be made out of metal if there is a desire for a customized or artistic appearance.

Any existing banners could be further enhanced with additional locations and/or a coordinated design/layout. New banners should be made of a durable material that will not easily damage or wear to prevent frequent replacement.

PUBLIC ART

Public art can be a significant streetscape component by enhancing civic identity at multiple scales. At the larger scale, it can help to unify an entire district or neighborhood. At the pedestrian scale, it can add aesthetic interest and also functional benefits if incorporated into pedestrian furnishings such as seating or lighting.



Appropriate locations for public art exist in a number of locations and capacities in each of the downtown districts. Depending on the art piece that is proposed, a suitable site should be proposed and analyzed for its feasibility. Along Highway 99W/First Street and Hancock Street, public art could be located at key intersections, and be of a larger scale that is highly visible and consistent with the scale of the highway. Similarly, throughout the downtown core, opportunities for public art exist at key intersections and could reflect the scale and spirit of each neighborhood. Public art could also exist at a smaller, pedestrian scale, either in distinct, key locations such as at a gateway location or as a series of pieces evenly “dispersed” throughout a district.

COMMUNITY KIOSKS

Kiosks can be attractive, useful streetscape elements that provide relevant community-related information such as maps, historical information, bulletin boards and event announcements. They can also be combined with gateway monumentation or signage to create a functional and attractive streetscape element.

Kiosks can be artistic, or expressive of an area’s unique character or predominant architectural style. They should be located in the furnishing zone, with no more than two at any one intersection, and can also be located in special opportunity areas such as plazas or other community gathering spaces. Additionally, the scale of the kiosk should be consistent with the space in which it is situated.

Appropriate locations within the downtown project areas include key intersections or special opportunity areas that are easily accessed by pedestrians or bicyclists. The corner at the post office or the adjacent vacant parcel or adjacent to the Chehalem Cultural Center are prime locations for community kiosks.



TRANSIT SHELTERS

Transit shelters provide protection against the elements for waiting transit riders, and help to identify and give cohesion to a city/region’s transit system. Shelters can be simple, shatter-resistant glass structures, or can be design in a sculptural, expressive manner that reflects the unique character of a city or site.

SPECIAL OPPORTUNITY AREAS

Often times a site adjacent to or within a streetscape corridor with unique characteristics presents special opportunities for developing it into an effective community resource. These special opportunity areas can be developed in a number of different ways, and can include gateway monumentation, sidewalk cafe seating areas, small plazas and/or park spaces, informal gathering spaces, or landscape art installations.

Special opportunity areas should be accessible to pedestrians, and should be located primarily along the core downtown business district along First Street and Hancock Street. There are a number of locations throughout these project areas that present unique opportunities for special consideration.

In addition to these potential special opportunity areas, on-street parking spaces throughout the project areas provide many opportunities for creating Parklets. Parklets are small spaces, typically located within designated on-street parking stalls, that serve as an extension of the sidewalk to provide amenities and a green space for people using the street. Parklets can also accommodate other uses such as bicycle parking, art, or some other visual amenity. Though Parklets should be constructed of durable materials and



thus may feel permanent, they should be designed and constructed in a way that can be broken down quickly for snow removal or emergency access, and are therefore temporary improvements. The City of Newberg has a “Street Seats” program in place to develop these small urban spaces.

Green Street Strategies

Green street strategies include stormwater planters, vegetated swales, rain gardens, and permeable paving. The goals of these strategies include managing stormwater, protecting water quality, and improving watershed health. Additionally, green streets can improve mental and physical health, increase property value, conserve energy, improve wildlife habitat, and reduce maintenance costs associated with traditional drain pipe infrastructure.



STORMWATER PLANTERS

Stormwater planters typically have vertical walls, and can be located between the curb and sidewalk or in curb extensions. They can either be constructed with “open” bottoms to allow stormwater to infiltrate into native soil (“infiltration planters”), or be lined with an impervious bottom and constructed as a container to temporarily store stormwater to filter sediments and pollutants down through the planter (“flow through planters”). Site conditions will dictate which type of stormwater planter is appropriate.

VEGETATED SWALES

Vegetated swales are gently sloping, linear depressions planted with dense vegetation that treat stormwater runoff from adjacent roadways, sidewalks, and other impermeable surfaces. They typically accept runoff and allow it to infiltrate, but like stormwater planters, where soils drain poorly, slopes are too steep, or space is confined, swales can be lined and convey runoff to another, different type of drainage facility. Due to their bermed, gently sloping sides, swales can look like typical landscaped areas.



RAIN GARDENS & STORMWATER BASINS

Where space permits, rain gardens and stormwater basins provide opportunities to treat stormwater in larger depressions, and can offer opportunities to incorporate other materials such as boulders or large cobbles, small pedestrian foot bridges, art or other interpretive elements to further enhance these facilities. These larger stormwater features typically capture larger volumes of stormwater runoff, and provide opportunities for education and public awareness about their significance.



PERMEABLE PAVEMENT

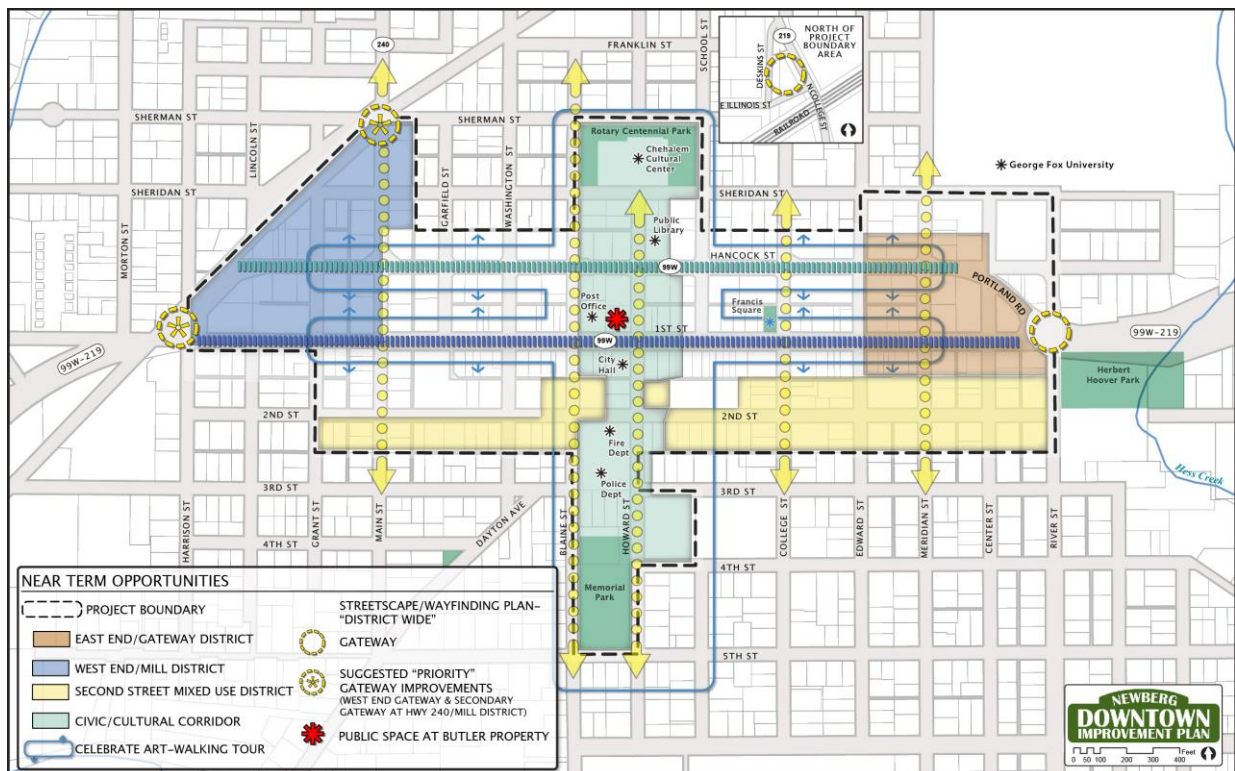
Permeable (or “pervious”) pavement allows stormwater to infiltrate directly through the paving medium into a reservoir base of crushed rock and eventually into native soil below. Permeable pavement types include pervious asphalt, pervious concrete, and permeable concrete unit pavers. These pervious materials resemble conventional pavement materials, but contain more air space to allow stormwater to infiltrate through, and are typically thicker as a result to support the same loads.



Permeable pavement is ideal in low traffic areas such as parking areas, highway shoulders, roadway medians, emergency access roads, and patios. Pervious concrete is best used in sidewalks; however, permeable concrete unit pavers should be avoided since they do not meet ADA requirements. Permeable pavement should not be used within 4’ of bedrock or a water table’s high point, within 100’ of a well, near building foundations, on slopes that exceed 5%, or within close proximity to contaminant sources such as gas stations.

NEAR TERM OPPORTUNITIES

Maintaining the momentum established through the planning process and having “early wins” is paramount to the success of the vision for the Newberg Downtown Improvement Plan. There are several specific projects and/or planning and design efforts that can be initiated to highlight the commitment of the city as well as maintain excitement around the vision.



STREETSCAPE AND WAYFINDING PLAN (Short-Term 0-36 months)

Creating continuity in the urban landscape will serve to define downtown Newberg and establish a sense of place. The development of this plan will allow the city to implement the urban design and streetscape elements as private property develops and as public resources are made available. A natural component of the streetscape plan is a wayfinding plan that invites and directs the visitor to explore. Together these two elements will guide the development of the public realm and will have profound effect on the reputation, attraction, growth and the ultimate economic stability of the downtown core.

WESTEND GATEWAY (Near-Term, years 4-6)

As mentioned earlier gateway monuments are elements that mark the entrance to a district or neighborhood. They are typically larger in scale, are highly visible, and can take many different forms. Like the gateway plaza and signage at the east end of the First Street/Hancock Street Couplet a west end gateway is necessary to define the entry into downtown Newberg from points west. Gateways signal to the automobile driver a transitional zone that will serve to reduce speeds, calm traffic and raise their awareness. Gateways can serve to establish a brand or theme for the downtown and can also highlight a community's character and creativity.



NORTHERN GATEWAY @ HIGHWAY 240 AND MILL DISTRICT (Near-Term, years 4-6)

Not unlike the primary gateways on the east and west ends of the First Street/Hancock Street Couplet, secondary gateways serve similar purposes. The gateway identified at Hwy 240/Main Street @ Sherman Street will serve to announce entry into the downtown core from highly popular wine country destinations. Equally this gateway can serve to brand the adjacent Mill District.

ART WALK (Short-Term 0-36 months and Near-Term, years 4-6)

As referenced above public art can be a significant streetscape component by enhancing civic identity at multiple scales. At the larger scale, it can help to unify an entire district or neighborhood. At the pedestrian scale, it can add aesthetic interest and also functional benefits if incorporated into pedestrian furnishings such as seating or lighting. The creation of a dynamic public art program can serve the community by engaging local artists, attracting art based tourism, enhancing the Newberg Brand and stimulating the economy.





PUBLIC SPACE @ BUTLER PROPERTY (Short-Term 0-36 months)

As referenced above, centrally located, publically owned or controlled spaces are rare in many downtown cores. As such the Butler Property presents an opportunity to develop a temporary community resource that could be utilized until such a time as a permanent development or solution is identified. Art installations, an artisanal demonstration or promotional venue, food cart pod or a temporary theater or performance shelter would bring energy and focus to the heart of downtown Newberg.

Summary of Short-Term Opportunities

STRATEGY	Short-Term Year 1	Year 2	Year 3	Near-Term Years 4-6	Estimated Cost
1. Streetscape and Wayfinding Plan		<ul style="list-style-type: none"> • Issue RFP • Develop Plan 			\$100,000- \$120,000
2. Develop West End Gateway				<ul style="list-style-type: none"> • Identify location • Design and construction 	\$250,000 - \$350,000
3. Develop Gateway @ Highway 240 and Mill District				<ul style="list-style-type: none"> • Identify location • Design and construction 	\$100,000 - \$120,000
4. Establish Walking Art Tour		<ul style="list-style-type: none"> • Establish Working Group • Develop Brand 	<ul style="list-style-type: none"> • Define Program • Define Locations 	<ul style="list-style-type: none"> • Solicit Art 	\$100,000 to develop individual installment locations
5. Butler Property Activation	<ul style="list-style-type: none"> • Develop Program 	<ul style="list-style-type: none"> • Develop Program • Schedule Events 	<ul style="list-style-type: none"> • Schedule Events 		\$50,000 – seed money to develop programming and sponsorship

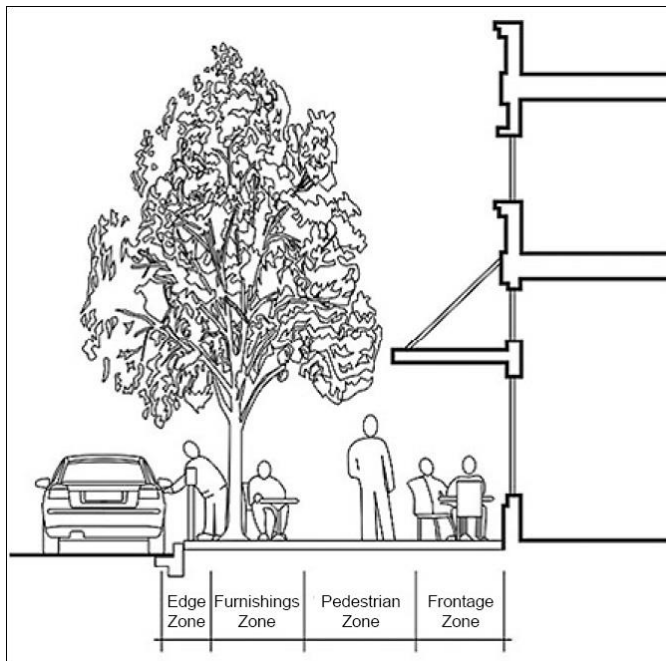
INTERIM STREETScape GUIDELINES

Streetscape improvements enhance the “public space” environment. Streets in downtown Newberg should have a consistent and high-quality streetscape design that enhances the character of the area in support of the vision. While First and Hancock Streets, as downtown’s primary business and retail streets, should have an enhanced, distinctive cross-section and design, all of downtown’s streets should have a similar or complementary set of streetscape elements to unify the area and facilitate use by the public.

In order to ensure a consistent direction for the type and location of streetscape amenities, identification of specific treatments and improvements, provision of clear and coordinated wayfinding, gateway features and other signage, a Streetscape and Wayfinding Plan is recommended as a high-priority action for realizing the vision and big ideas contained within the Downtown Improvement Plan. This Streetscape and Wayfinding Plan will provide standards, identify projects and establish a program for carrying them out. Until such time as the recommended Streetscape and Wayfinding Plan is prepared and approved, interim guidance for streetscape improvements is needed, emphasizing those actions and types of street furniture that may be used again or relocated, rather than replaced.

Interim Streetscape Guidelines

The sidewalk corridor or “public realm” is the zone between the curb and the edge of the right of way/property line of adjacent development. It consists of three functional zones: Frontage Zone, Pedestrian Zone, and Furnishings Zone (see figure, below). While not all features would be accommodated on every street, the figure shows elements to consider for an active pedestrian streetscape. The streetscape should have well-defined zones so that the pedestrian thoroughway is clearly evident.



Source modified from: *Institute of Transportation Engineers*
Designing Walkable Urban Thoroughfares: A Context Sensitive Approach
Chapter 8. Streetside Design Guidelines
<http://www.ite.org/css/online/DWUT08.html>

Furnishing Zone

Streetscape elements of the Furnishing Zone include utility poles, street lights, planters, trees, benches, bike racks, and future bus shelters, all of which should be designed and consistently used throughout downtown to contribute to its unified character. Green street design improvements (such as flow-through stormwater planters) should also be located in this zone.

Most site furnishings are sold as individual components within a particular ‘design family’. This is done in an effort to establish and maintain character and continuity in the public realm. Elements such as benches, waste receptacles, planters, drinking fountains, bollards and bike racks can be specified as a group that will provide business owners and developers direction when improving the public spaces adjacent to their businesses. Until such time as the City has a Streetscape and Wayfinding Plan in place, the following streetscape guidelines and suggested type of furnishings are recommended.

Locational Guidelines

Until the Streetscape and Wayfinding Plan providing standards for location of furnishings are in place, there may be improvements or furnishings being installed in the interim. Some types of furnishings (waste receptacles, bike racks, planters and benches) would be installed on a temporary basis with the intent of relocating them to a permanent space as streetscape plans and standards evolve.

- Benches, planters and waste receptacles should be placed opposite from the display window of the business where possible with the back of the bench facing the street no more than 18” off of the back of the curb.
- The bench should be flanked by a planter and a waste receptacle. There should be no more than four receptacles per block
- Bike racks are an element that can be relocated at a future date. For an interim solution, bike racks should be located at the ends of blocks on the perpendicular side street where there is ample space to accommodate up to six bicycles per rack.

Furnishing Guidelines

As noted above, there may be improvements or furnishings being installed in the interim period between now and such time as the Streetscape and Wayfinding Plan is in place. Accordingly, recommendations for types of street furniture are provided below, with consideration being given to furnishings that that may be used again or relocated, rather than replaced. During the initial public workshop conducted in association with the NDIP, those attending the workshop were presented with imagery of various types and examples of streetscape furnishings, and were asked which appealed to them most. Taking this information and the types of furnishings currently in place downtown, the following types of furnishings and conceptual guidelines for them should be considered.



Benches – As mentioned above the style preference indicated during the public process was for a more classic/historic bench that is in line with the character of downtown Newberg. The **Victor Stanley** bench shown to the right can be



purchased with variations of seating slats including wood, metal and recycled plastic.

Waste Receptacles – The **Victor Stanley** waste receptacles shown below are complementary to the bench shown to the right.

p: (503) 222-5612 • f: (503) 222-2283

Bike Racks – Bike racks provide an opportunity for community expression and branding. They can be created through local arts programs and can help to develop continuity in the public realm. While it is not necessary to choose racks from the same family of site furnishings as benches and waste receptacles, they should be complementary in color and finish. Bike racks can be installed temporarily at the ends of blocks out of pedestrian circulation zones or on a local side street in an existing parking space. The number of racks can be based on anticipated use. For racks similar to those shown below and right a maximum of two bicycles per side is recommended.



Street Trees – The City of Newberg has an approved street tree list with specific trees recommended for the downtown core. This list should be updated as it was produced in 1992. Many of the street trees currently found along First Street and Hancock Street are older and not necessarily in the best condition. To continue the goal of creating continuity in the downtown core, a single species and variety of tree should be specified along both corridors and planted when opportunity allows. Pruning standards should be established to produce consistent canopies. Below are recommended trees.



Cercidiphyllum japonicum (Katsura Tree) above
Tilia codata ('Greenspire' Littleleaf Linden) left

Lighting – Ornamental lighting in the public realm is often supplemental to the overall “street lighting” required in the vehicular right of way which meets strict requirements based on safety. This supplemental lighting is often more pedestrian scale and can serve multiple purposes such as supporting banners and hanging flower baskets. The City of Newberg has a standard for this ornamental lighting which is currently installed along Hancock Street and in the alley way south of Hancock Street. The images below illustrate the lights versatility and style. These types of lights can be purchased with varied configurations including double lamps. It is recommended that this standard be maintained and the installation of these lights be expanded to First Street when the opportunities are presented.



Pedestrian Zone

New sidewalks along downtown streets should be at least five or six feet in width and wider if the right of way allows. Ideally, two people walking together should be able to pass a third person comfortably. On First Street and Hancock Streets, consistent with the Newberg Downtown Improvement Plan's (NDIP) big ideas, sidewalk widths are anticipated to be significantly increased in the future. The width and timing of these sidewalk improvements will be determined by ODOT and the City of Newberg as a result of discussions following adoption of the NDIP and Transportation System Plan. Sidewalks should generally be clear of clutter like miscellaneous signage or street furniture that does not match the standard.

Frontage Zone

Buildings should have active frontages including outdoor uses, such as display or restaurant seating, or be designed to provide views into buildings from ground-floor windows and doors. Residential uses should include stoops, main entries, and/ or public spaces. No blank walls should be permitted. Among the most serious threats to an aspiring active retail zone are unkempt, abandoned or empty storefronts. Empty, dark stores along primary retail streets can make an area feel dead and uninviting. Through the development of a Storefront Activation Program the City of Newberg can incent building owners to power wash and paint their existing store fronts. Windows should be cleaned and new, uniform papering applied for storefronts that are unoccupied. Storefront display spaces can be utilized to exhibit local art, crafts or products. They can also be utilized as community bulletin kiosks announcing public events or local attractions.

Public Space

Within the streetside – the area within the public right of way that accommodates non-vehicular activity – civic and community functions may require additional public space to complement adjacent civic or retail land uses. Public spaces in the streetside include public plazas, squares, outdoor dining, transit stops and open spaces. Public spaces should be designed to serve functions that enhance the surrounding context, such as public gatherings, special events, farmers' markets, quiet contemplation, lunchtime breaks and so forth. General principles for the design of public spaces include the following:

- Public spaces in private property adjacent to the streetside should be visible and accessible from the streetside. These public spaces can accommodate higher levels of pedestrian activity at entries to major buildings or businesses.

- Public spaces in the streetside should not impede the circulation of pedestrians and should provide appropriate features such as seating and lighting to make them attractive and functional places for people to use.
- The streetside and public space design should integrate each other's functions in a compatible and mutually supportive manner. Functions should interconnect by design.
- Special paving and materials may be considered to unify the look of the sidewalk, parking lane and crosswalks.
- There should be a continuity of design in adjacent streetside and public spaces. This may include paving, lighting, landscape plants and materials and other features.
- Street trees, light fixtures, public art and other elements with a unified design can be used to highlight a segment of a roadway that is specifically designed to function as a public gathering place.

APPENDIX

H

LAND USE REGULATORY IMPROVEMENTS



MEMORANDUM

DATE: September 13, 2016
TO: Dave Siegel, Leland Consulting
FROM: Steve Faust
RE: Newberg Downtown Improvement Plan – Land Use Regulatory Improvements

Overview

To reinvent Downtown Newberg as a vital, active, more urban, mixed-use and pedestrian-friendly environment, the City will need to amend the Newberg Comprehensive Plan and Development Code. These recommended regulatory amendments focus on creating the desired uses, scale and character described in the Plan.

Comprehensive Plan Amendments

Under Goals and Policies (Section II) heading of the Comprehensive Plan, Section J pertains to Urban Design and Policy 5 is specific to Downtown Policies. We recommend the following revisions to sub-policies under Section J, Policy 5:

- Sub-policy 'b' requires the City to encourage federal, state and local governments to maintain or locate offices in the Central Business District. Add a sentence to encourage retention of the retail portion of the post office within the Downtown.
- Sub-policy 'c' encourages a variety of commercial and service activities in the central business district. Add a statement to specify these activities include mixed-use commercial/residential buildings and mixed-use commercial/craft industrial buildings.
- Sub-policy 'g' states that the City will consider a variety of downtown improvements related to transportation, attractions, the post office and urban design that conflict with recent development or the desired outcomes of the Newberg Downtown Improvement Plan. Modify this sub-policy to state that the City should consider adequate off-street parking through public lots and other alternatives, a downtown improvement plan and design standards, and options to make Downtown more pedestrian-friendly.

We also recommend updating Section H (The Economy), Policy 3 (Commercial Areas Policies) to encourage tourism-related businesses and possibly a hotel and craft industrial uses in Downtown. This could include revising sub-policy 'a' and/or adding a new policy.

Zoning Map and Development Code Changes

The following amendments to the zoning and Development code are recommended to implement the Newberg Downtown Improvement Plan:

Hancock, First and Second Streets

The general vision for these three streets is a mix of commercial, service and residential uses, with a heavier emphasis on residential along Hancock and Second Street, and on commercial and service uses along First Street, and a desired form of two to four-story buildings. All three streets currently share C-3 zoning. We recommend retaining the existing zoning and not creating individual overlays for the three different streets because the desired development has more in common than not.

Recommended code changes to address uses include:

- Revise limitations and conditional use permit requirements for residential uses in C-3 district. Allow all types of residential development as permitted uses on lots fronting onto Hancock or Second Street, with the option but not a requirement for ground-floor commercial uses as well. Allow upper-story residential development, likely multifamily dwellings or mixed-use dwellings, on all streets as permitted uses with no density limit. Permit single-family detached uses established prior to effective date of these code changes as an allowed use, rather than a legal non-conforming use, provided that allowed use status is lost if converted to commercial or other use.
- Develop definition for live/work units and allow as permitted uses in C-3 district, with limitation on ground-floor residential along First Street.
- Consider whether conditional use permit requirement for home occupations with more than one employee is necessary in C-3, since home occupations could be considered another type of mixed-use like a live-work unit that is otherwise allowed in the district.

Other zoning revisions for the C-3 district:

- Review standards for ‘Retail food and beverage production’ use to allow broader range of artisan manufacturing more consistent with ‘craft industrial’ uses being introduced. Ensure that wine and food-production uses desired for Downtown can meet these requirements, particularly the food & wine showcase considered as part of the City catalyst development.
- Review site design standards to simplify and better align with design guidelines to be developed for downtown.
- Review dimensional standards for height and yards, particularly adjacent to residential districts, to ensure balance between development potential of the district and limiting impacts on neighbors.
- Allow outdoor uses such as café seating both on private property and within public right-of-way, in coordination with Public Works standards.

Civic/Cultural Corridor

The mix of civic buildings, many with historic elements, within the corridor is already regulated through the Civic Corridor Overlay District, which aligns with the corridor identified in the NDIP. No changes to this zoning approach are recommended.

West End/Mill District:

The area currently includes a mix of C-3 and M-2 light industrial zoning, and is intended to provide a mix of commercial and industrial uses to promote employment. Focus is on developing ‘craft industrial’ uses and maintaining a “grittier” feel more in keeping with the industrial heritage than the

main-street, historic feel along parts of First Street. We recommend creating a new Craft Industrial Zoning District (M-5) to regulate the mix of uses allowed and prohibited, dimensional and design standards, and to provide better continuity for the area than can be achieved through existing split C-3 and M-2 zoning. New zoning provisions will:

- Limit allowed uses to commercial, including potential hotel use, and light industrial uses with limited impacts to neighbors and high job creation potential.
- Allow residential above the ground floor as part of mixed-use developments, similar to the C-3 zone.
- Allow new ‘craft industrial’ use category to allow combination of on-site manufacturing and retail component, with a flexible amount of retail space depending on the developer’s need.
- Prohibit industrial uses with higher impacts such as warehousing, storage and heavy manufacturing uses.
- Develop parking and loading standards that meet functional requirements of proposed uses while reducing off-street parking requirements to allow more flexibility developing and redeveloping sites.
- Establish minimum lot size closer to 5,000 SF similar to C-3 zone than the 20,000 SF required for M-2 zone.
- Develop dimensional standards for height and yards, particularly adjacent to residential districts, to ensure balance between development potential of the district and limiting impacts on neighbors.

As a future implementation task, we recommend creating design guidelines for the area to promote the “gritty” industrial feel distinct from downtown.

East End/Gateway District

The area is entirely within the C-3 zone, and the distinguishing characteristics are desired hotel/conference center and parking lot uses. We recommend accommodating those uses in the base zone, reviewing the footnotes in the use table and tailoring them to encourage this development. This includes revisiting the limitation on hotel uses in C-3 district that requires conditional use permit for hotel uses greater than 40,000 SF to determine whether desired type of facility would trigger CUP, how the CUP requirements may impact development feasibility, and whether removing or altering the restriction would better encourage development. Review how a conference center use would be treated under the code to ensure it would be allowed.

There is also a Limited Use Overlay district that applies to the block bounded by First Street, Portland Road, and Center Street. We recommend retaining the overlay and do not foresee any conflicts between the additional overlay provisions and the desired development for this area.

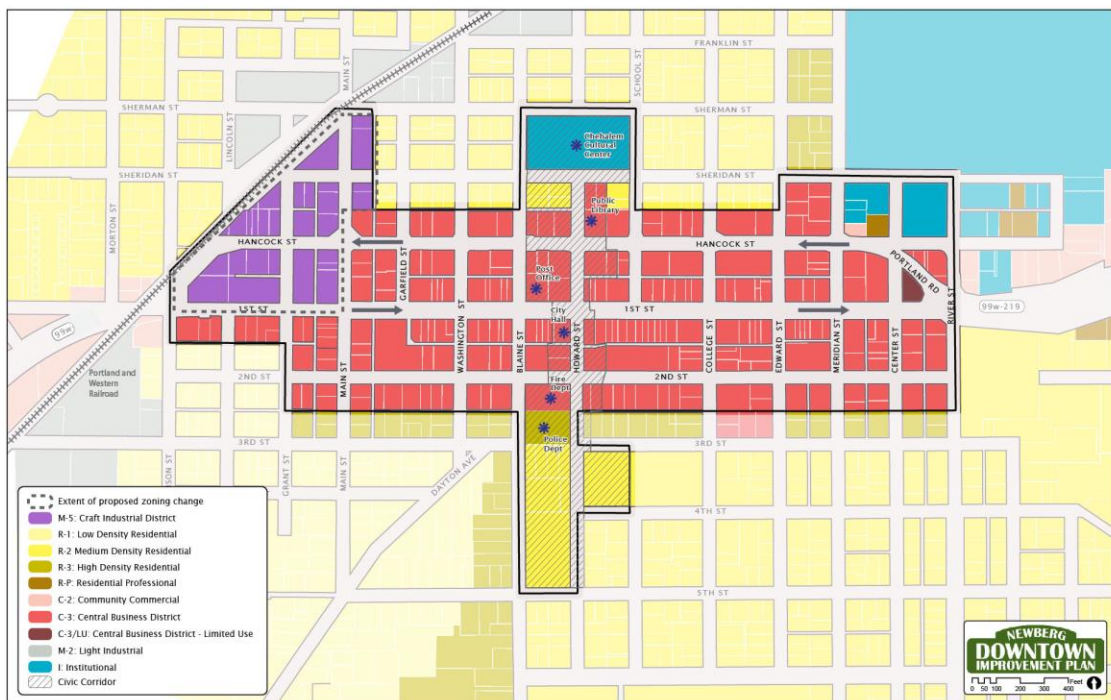
Parking Regulations

Current code exempts development in the C-3 zone from providing any off-street parking, with two exceptions: parking is required for residential uses in C-3 and is required for any development adjacent to a residential zone, primarily located along the north side of Hancock and the south side of Second Street. We recommend removing the parking requirement for residential uses and introducing a fee-in-lieu program. Address additional parking needs of residents, visitors, and employees through a variety of strategies outlined in parking management plan to complement the off-street parking exemptions.

Support plans for shared parking facilities across downtown by revisiting the standards for joint use of facilities. Commercial parking lots are allowed as a primary use in the C-3 zone, which would allow multiple business owners to share off-street parking. Also consider how joint use of facilities regulations would apply to accessory parking, a parking area developed on the same parcel as a primary development. Current regulations allow joint use where hours of operation do not overlap or where sufficient spaces exist for more than one development, provided the lot is within 400 feet of the development. Review how this would apply to developments in the C-3 zone to ensure developments can share existing accessory parking with other businesses in an effective manner, by expanding or removing the 400-foot limitation.

Adjust landscaping standards for parking lots in the C-3 district to reduce front landscaping buffer between parking lots and the street from 10 feet to 5 feet. Consider adjusting standard for interior parking lot landscaping to reduce required landscaping below 25 SF per space, to make more efficient use of any parking areas that are developed in downtown.

Existing code requires bicycle parking for new commercial and residential development, including in the C-3 district. Review bike parking ratios and additional strategies to provide bike parking, such as publicly funded installations in the right-of-way, that fully support the plan’s vision for bicycle tourism and multimodal transportation.



City of Newberg Development Code, Title 15

Implementation of Newberg Downtown Improvement Plan Concepts

Revised Draft, September 22, 2016

Chapter 15.05 General Provisions

15.05.030 Definitions

“Craft industrial” means a category of uses under Chapter 15.303 NMC that are involved in the manufacturing, processing, fabrication, packaging or assembly of goods, with associated retail, eating or drinking, or similar commercial uses on site.

“Incubator space” means a multiuse facility providing start-up and early stage businesses with shared office, industrial, manufacturing, food preparation, or similar facilities.

“Live/work unit” means a building or space within a building used jointly for a commercial or manufacturing activity allowed in the zone and a residential living space for the owner of the commercial or manufacturing business, or the owner's employee, and that person's household, where the residential use of the space is secondary or accessory to the primary use as a place of work.

“Retail food, and beverage, and artisan production category” means a category of uses under Chapter 15.303 NMC that prepare and package food and beverages for retail sale or consumption on site, or that manufacture and sell artisan goods such as leather, glass, cutlery, paper, ceramic, textile, yarn, or similar products on site, and for shipment for sales at other locations. These are medium-sized operations, using 10,000 square feet or less of floor for production. The area on site devoted to retail sales and dining is at least 25 percent of the floor area.

Chapter 15.220 Site Design Review

15.220.080 Additional requirements for development in the C-3 zoning district.

The purpose of this section is to ensure that new development and redevelopment in the C-3 zoning district maintains and promotes downtown Newberg as a desirable place to spend time. The standards below will help to assure continued quality and compatibility in construction and design. An applicant for a new development or redevelopment within the C-3 zoning district, which is subject to the site design review process, must demonstrate that the minimum required site and building design

elements below and two of the three ~~optional seven out of 10 of the following~~ site and building design elements have been incorporated into the design of the project. Exceptions to these additional development requirements may be granted if the requirements would result in construction that is out of character with surrounding development. Applicants for redevelopment of a designated landmark will not be subject to these additional requirements.

A. Minimum site and building design requirements.

1. New buildings must build a floor to ceiling height of at least 10 feet on the ground floor. New buildings shall be constructed with a minimum of two stories.

2. Windows.

a. Percentage of Glazing. A minimum of 50 percent of the ground floor and 30 percent of floors above the ground floor along the primary façade shall be glazed, based on the total façade area. For all other façades facing a public street, at least 30 percent of each floor shall be glazed, based on the total façade area. For residential developments, a minimum of 30 percent of each floor shall be glazed.

b. Display windows may be used to meet up to 50 percent of the glazing requirements provided they are at least 18 inches deep and integrated into the architecture of the building. Tack-on display cases do not qualify as glazed areas.

c. Depth of Windows. Windows shall be recessed at least one and one-half inches from the general plane of the facade. This creates shadow lines and visual interest, giving the facade the perception of depth. Depth in the facade promotes the perception of high quality and durable construction, and contributes to the district's historic character.

d. Window Glazing Material. Windows facing a public street shall be made of clear or low-e glazing (pursuant to Oregon Structural Code Section 1312.1.3). Tinted or reflective glass shall not be visible from public rights-of-way.

e. Verticality. To maintain compatibility with historic proportions, windows facing public streets shall be primarily vertical. With the exception of transom windows, the width-to-height ratio of any single window pane (defined as either a true divided light or a "pane" created by "snap-in" dividers) shall be no more than 1:1.

3. Façade Materials.

a. Dominant Material. All facades shall be comprised of a single dominant material. Additional materials are allowed as accents.

b. Allowed Wall Materials. The first six feet of the street-facing façade, except for façades facing an alley, as measured from the base of the façade upwards shall be constructed of brick, rusticated concrete block, or stone masonry. If used as a veneer material, brick, rusticated concrete block, or stone must be at least two and one-half inches thick. Cement-based stucco and poured-in-place concrete are allowed. For all

portions of the façade above six feet, the above materials are permitted in addition to horizontal wood and cementitious lap siding, horizontal board and batten siding, shingles, and shakes. Lap siding, shingles, and shakes shall be exposed a maximum of six inches to the weather. In board and batten siding, battens shall be spaced a maximum of eight inches on center.

c. Changes in Material. Brick, rusticated concrete block, and stone masonry portions of facades shall return at least 18 inches around the exposed side walls. When multiple cladding materials are used, changes shall occur along horizontal lines only, with a maximum of three different materials allowed per facade. Heavier-appearing materials (e.g., brick) shall be used only below lighter-appearing materials (e.g., shingles).

~~A. Elements of the Facade.~~

~~1. Windows. To maintain compatibility with historic proportions, windows facing public streets shall be primarily vertical. With the exception of transom windows, the width to height ratio of any single window pane (defined as either a true divided light or a "pane" created by "snap-in" dividers) shall be no more than 1:1.~~

~~B. Optional site and building design requirements. Two of the following are required.~~

~~1. Awnings. To provide shade and protection from the rain, awnings of fabric, glass, wood or metal shall extend along at least 25 percent of street-facing facades. Awnings shall be securely attached to the building and at their lowest point shall not be lower than eight feet above the ground level. Awnings may encroach a maximum of eight feet into the public sidewalk right-of-way, but no closer than two feet from the curb line.~~

~~B. Facade Articulation.~~

~~1. Emphasize Prominent Entrances. Entrances facing a public street shall be incorporated as an integral element in the facade. Entrances shall be emphasized to clearly communicate how to enter the building and to make buildings appear more inviting. Some strategies for emphasizing the entrance on a facade include: using transom windows above entrance doors to increase their apparent scale, detailing and emphasizing the trim or pilasters surrounding the entrance doors, and locating projections such as awnings or balconies above the entrance.~~

~~2. Maximum Horizontal Facade Plane. To avoid overwhelming and visually monotonous facades, buildings shall not extend more than 60 feet horizontally without a change in the plane of the facade of at least one foot. Vertically stacked bay windows are one way to satisfy this criterion.~~

~~C. Windows.~~

~~1. Depth of Windows. Windows shall be recessed at least one and one-half inches from the general plane of the facade. This creates shadow lines and~~

visual interest, giving the facade the perception of depth. Depth in the facade promotes the perception of high quality and durable construction, and contributes to the district's historic character.

2. ~~Percentage of Glazing.~~ The percent of glazing based on the horizontal distance of the facade shall be as follows:
 - a. ~~Primary facade:~~ at least 50 percent of ground floor and 30 percent of floors above the ground floor; and
 - b. ~~All other facades facing a public street:~~ at least 30 percent per floor.
3. ~~Window Glazing Material.~~ Windows facing a public street shall be made of clear or low-e glazing (pursuant to Oregon Structural Code Section 1312.1.3). Tinted or reflective glass shall not be visible from public rights-of-way.

~~D. Facade Materials.~~

1. ~~Dominant Material.~~ All facades shall be comprised of a single dominant material. Additional materials are allowed as accents.
2. ~~Allowed Wall Materials.~~ Allowed wall cladding materials include horizontal wood and cementitious lap siding, horizontal board and batten siding, shingles, and shakes. Lap siding, shingles, and shakes shall be exposed a maximum of six inches to the weather. In board and batten siding, battens shall be spaced a maximum of eight inches on center. In addition, brick, rusticated concrete block, or stone masonry is allowed, but when used as a veneer material, it must be at least two and one-half inches thick. Cement-based stucco and poured-in-place concrete are allowed.
3. ~~Changes in Material.~~ Brick and stone street-facing facades shall return at least 18 inches around the exposed side walls. When multiple cladding materials are used, changes shall occur along horizontal lines only, with a maximum of three different materials allowed per facade. Heavier appearing materials (e.g., brick) shall be used only below lighter appearing materials (e.g., shingles).

Chapter 15.302 Districts and Their Amendment

15.302.010 Establishment and designation of use districts and subdistricts.

In order to classify, regulate, restrict and segregate the uses of lands and buildings, to regulate and restrict the height and size of buildings, to regulate the area of yards and other open spaces about buildings, and to regulate the density of population, the following classes of use districts and subdistricts are established:

- A. Use Districts.
 1. R-1 low density residential district.
 2. R-2 medium density residential district.
 3. R-3 high density residential district.
 4. RP residential professional district.

5. C-1 neighborhood commercial district.
6. C-2 community commercial district.
7. C-3 central business district.
8. C-4 riverfront district.
9. CF community facilities district.
10. I institutional district.
11. M-1 limited industrial district.
12. M-2 light industrial district.
13. M-3 heavy industrial district.
14. M-4 large lot industrial district.
15. M-5 craft industrial district.
- ~~16. A5.~~ AI airport industrial district.
- ~~17. A6.~~ Airport residential (AR) district.
- ~~18. A7.~~ SD Springbrook district.

15.302.032 Purposes of each zoning district.

N. M-5 Craft Industrial District. The purpose of the M-5 craft industrial district is to create, preserve and enhance areas that provide a mix of commercial and light industrial uses, particularly small-scale craft industrial uses with an integrated commercial component. The district is intended to complement nearby commercial areas by providing opportunities for production spaces while minimizing off-site impacts. The M-5 district intended to be consistent with the industrial (IND) and mixed use (MIX) designations of the comprehensive plan.

(Renumber following sections.)

Chapter 15.303 Use Categories

15.303.200 Residential uses.

The following residential uses are defined in NMC 15.05.030:

- A. Dwelling, single-family detached.
- B. Dwelling, single-family attached.
- C. Manufactured home.
- D. Manufactured dwelling park.
- E. Mobile home park.
- F. Manufactured home subdivision.
- G. Dwelling, two-family (duplex).
- H. Dwelling, multifamily.
- I. Dwelling, accessory.

- J. Dwelling, mixed use.
- K. Dwelling, caretaker.
- L. Dormitory.
- M. Home occupation.
- N. Live/work unit.

15.303.425 Retail food, ~~and beverage~~, and artisan production category.

- A. Characteristics. Uses in this category prepare and package food and beverages for retail sale or consumption on site, or manufacture and sell artisan goods such as leather, glass, cutlery, paper, ceramic, textile, yarn, or similar products on site, and for shipment for sales at other locations. These are medium-sized operations, using 10,000 square feet or less of floor for production. The area on site devoted to retail sales and dining is at least 25 percent of the floor area.
- B. Accessory Uses. Drive-up service windows. Note that drive-up service windows require a conditional use permit in some zones. Entertainment.
- C. Examples. Small-scale wineries, breweries, and distilleries with tasting rooms on site. Retail bakeries. Chocolate shops. Coffee roaster or tea manufacturer with tasting rooms and/or retail area on site. Art studios, furniture makers, and metalwork manufacturers with retail areas on site.
- D. Exclusions. Wholesale bakeries, wineries, breweries, and distilleries with no or smaller retail or dining components are classified as light industrial uses. Restaurants or retail shops that also produce food or beverages, where dining or customer areas comprise the majority of the floor area, or all food is sold "take-out," such as some brew pubs and bakeries, are classified as eating and drinking establishment or general retail sales. Manufacturing uses with no retail sales component are classified as light industrial uses.

15.303.509 Craft industrial category.

- A. Characteristics. Uses in this category are involved in the manufacturing, processing, fabrication, packaging or assembly of goods, with an associated public commercial component on site. Outdoor storage and processing of goods and materials is less than 10 percent of the site and must be screened.
- B. Accessory uses. Retail sales, display and consumption of goods produced on site, occupying a minimum of 10% of the floor area.
- C. Examples. Processing of food and related products, catering establishments, breweries, distilleries and wineries. Weaving or production of textiles or apparel. Woodworking, including furniture and cabinet makers. Manufacture or assembly of machinery, equipment, instruments, including musical instruments, vehicles, appliances, precision items, and other electrical items. Production of artwork and toys.

D. Exclusions. Uses are distinct from light manufacturing because of the commercial component, and distinct from retail, food, beverage and artisan manufacturing uses because they may be a larger scale with no limit on size of production space.

15.303.510 Incubator spaces.

Incubator spaces are as defined in NMC 15.05.030.

Chapter 15.305 Zoning Use Table

15.305.020 Zoning use table – Use districts.

Newberg Development Code – Zoning Use Table

#	Use	C-3	M-5	Notes and Special Use Standards
100	AGRICULTURAL USES			
Def.	Horticulture	P(1)	<u>P(1)</u>	
Def.	Livestock and poultry farming	X	<u>X</u>	
Def.	Home gardening	P	<u>P</u>	
Def.	Home livestock and poultry raising			NMC Title <u>6</u>
200	RESIDENTIAL USES			
Def.	Dwelling, single-family detached	€ <u>P(5)</u>		Subject to density limits of NMC <u>15.405.010(B)</u>
Def.	Dwelling, single-family attached	€ <u>P(5)</u>		NMC <u>15.415.050</u> ; subject to density limits of NMC <u>15.405.010(B)</u>
Def.	Manufactured home on individual lot			NMC <u>15.445.050</u> – <u>15.445.070</u> ; subject to density limits of NMC <u>15.405.010(B)</u>
Def.	Manufactured dwelling park			NMC <u>15.445.075</u> – <u>15.445.160</u>
Def.	Mobile home park			NMC <u>15.445.075</u> – <u>15.445.160</u>
Def.	Manufactured home subdivision			NMC <u>15.445.075</u> – <u>15.445.160</u>
Def.	Dwelling, two-family (duplex)	P(8)/ C(5)		Subject to density limits of NMC <u>15.405.010(B)</u>
Def.	Dwelling, multifamily	P(8)/ C(5)		Subject to density limits of NMC <u>15.405.010(B)</u>
Def.	Dwelling, accessory			Chapter <u>15.445</u> NMC, Article V

#	Use	C-3	M-5	Notes and Special Use Standards
Def.	Dwelling, mixed use	P(8)/C(5)	<u>P(10)</u>	
Def.	Dwelling, caretaker		<u>P</u>	Limited to one per lot, and allowed whenever the use requires the on-site residence of such person.
Def.	Dormitory			
Def.	Home occupation (no more than one outside paid employee)	S(13)	<u>S(13)</u>	NMC 15.415.060
Def.	Home occupation (more than one outside paid employee)	C <u>S(13)</u>	C <u>S(13)</u>	NMC 15.415.060
Def.	Live/work unit	<u>S</u>	<u>S</u>	NMC 15.415.070
300	INSTITUTIONAL AND PUBLIC USES			
310	INSTITUTIONAL CARE AND HOUSING			
Def.	Family child care home	P(13)	<u>P(13)</u>	Chapter 657A ORS
312	Day care	P	<u>P</u>	Chapter 657A ORS
Def.	Residential care home (5 or fewer people)	P(13)	<u>P(13)</u>	ORS 197.665
Def.	Residential care facility (6 – 15 people)	C		ORS 197.665
315	Group care facility (16+ people)			
316	Hospital	P		
Def.	Prison			
320	ASSEMBLY			
321	Religious institution, place of worship	P	<u>P</u>	
322	Private club, lodge, meeting hall	P	<u>P</u>	
330	SCHOOLS			
330	School, primary or secondary			
331	College	P(15)	<u>P(15)</u>	
332	Commercial educational services	P	<u>P</u>	
340	PARKS AND OPEN SPACES			
341	Open space	P	<u>P</u>	
342	Park	P	<u>P</u>	
Def.	Golf course			
350	PUBLIC SERVICES			
351	Community services	P	<u>P</u>	

#	Use	C-3	M-5	Notes and Special Use Standards
352	Emergency services	P	<u>P</u>	
Def.	Pound, dog or cat	C	<u>C</u>	
Def.	Cemetery	C	<u>C</u>	Chapter <u>97.46</u> ORS
360	TRANSPORTATION			
Def.	Transportation facilities and improvements	P	<u>P</u>	
Def.	Transit center	P	<u>P</u>	
Def.	Parking facility	P(18)/ C(18)	P(18)/ C(18)	
Def.	Airport, landing field			
Def.	Heliport, helipad	C	<u>C</u>	
Def.	Marina			
	Pilings, piers, docks, and similar in-water structures			
370	UTILITIES			
Def.	Basic utilities	P	<u>P</u>	
Def.	Utility distribution plant or yard			
Def.	Wastewater treatment plant			
Def.	Telecommunication facility incorporated into existing structure/utility pole and no taller than 18 feet above existing structure/utility pole	S	<u>S</u>	Chapter <u>15.445</u> NMC, Article IV
Def.	Telecommunication facility, including radio towers and transmitters, which are 100 feet or less in height, except those incorporated into an existing structure no taller than 18 feet above that structure.	C	<u>C</u>	Chapter <u>15.445</u> NMC, Article IV
Def.	Telecommunication facility, including radio towers and transmitters, which are over 100 feet	C	<u>C</u>	Chapter <u>15.445</u> NMC, Article IV
400	COMMERCIAL USES			
410	COMMERCIAL OFFICES			
411	Medical office	P(21)	<u>P(21)</u>	
412	Local business office	P(21)	<u>P(21)</u>	
420	COMMERCIAL SALES AND RENTALS			
421	Retail sales – General	P(15) (21)	<u>P(15)</u> <u>(21)</u>	
422	Retail sales – Bulk outdoor	C	<u>P</u>	
423	Retail sales – Convenience	P(21)	<u>P(21)</u>	

#	Use	C-3	M-5	Notes and Special Use Standards
Def.	Temporary merchant	S(21)		NMC 5.15.050 et seq.
	Medical marijuana dispensary	P(35)	<u>X</u>	
425	Retail food, and beverage, and artisan production	S	<u>S</u>	Chapter 15.445 NMC, Article VIII
430	EATING AND DRINKING ESTABLISHMENTS			
430	Eating and drinking – Alcohol-related	P(21)	<u>P(21)</u>	Requires liquor license
430	Eating and drinking – Non-alcohol-related	P(21)	<u>P(21)</u>	
440	COMMERCIAL SERVICES			
441	Personal services	P(21)	<u>P(21)</u>	
442	Commercial services	P(21)	<u>P(21)</u>	
443	Commercial vehicle service	C	<u>P</u>	
Def.	Kennel, commercial	C	<u>C</u>	
450	COMMERCIAL RECREATION			
451	Commercial recreation – Indoors	P(15)	<u>P(15)</u> <u>(29)</u>	
452	Commercial recreation – Outdoors			
453	Commercial recreation – Motor-vehicle-related			
460	COMMERCIAL LODGING			
Def.	Vacation rental home	S(13)	<u>S(13)</u>	Chapter 15.445 NMC, Article VII
Def.	Bed and breakfast (2 or fewer rooms)	S		NMC 15.445.010
Def.	Bed and breakfast (3 or more rooms)	S		NMC 15.445.010
Def.	Hotel or motel	P(15)	<u>P</u>	
Def.	Recreational vehicle park			NMC 15.445.170
500	INDUSTRIAL USES			
501	Traded sector industry office	P	<u>P</u>	
502	Industrial services		<u>C</u>	
503	Wholesale and industry sales		<u>C(31)</u>	
504	Warehouse, storage, and distribution			
505	Self-service storage			
506	Light manufacturing		<u>P</u>	
507	Heavy manufacturing			
508	Waste-related			
Def.	Craft industrial		<u>P</u>	
Def.	Incubator space		<u>P</u>	
600	MISCELLANEOUS USES			

#	Use	C-3	M-5	Notes and Special Use Standards
Def.	Accessory building and use incidental to other permitted uses in the zone	P	<u>P</u>	
	Uses similar to permitted uses in the zone and not defined or categorized	P	<u>P</u>	
	Uses similar to conditional uses in the zone and not defined or categorized	C	<u>C</u>	
	Medical marijuana processor		<u>P</u>	
	Medical marijuana grow site	C	<u>C</u>	
	Recreational marijuana processor	X	<u>P(37)</u>	
	Recreational marijuana producer (indoor)	X	<u>C</u>	
	Recreational marijuana producer (outdoor)	X	<u>X</u>	
	Recreational marijuana retailer	P(38) /(39) /(40)	<u>P(38)</u> <u>/(39)</u> <u>/(40)</u>	
	Recreational marijuana wholesaler	X	<u>X</u>	
	Recreational marijuana laboratories	P	<u>P</u>	
	Recreational marijuana research certificate	P	<u>P</u>	

Notes.

- (1) Limited to sites with preexisting agricultural uses, including at time of annexation.
- (2) Limited to one per lot as a permitted use. More than one per lot allowed only through a conditional use permit or planned unit development, subject to density limits of NMC 15.405.010(B).
- (3) Permitted on individual lots created prior to November 17, 1992. Homes on individual lots created on or after November 17, 1992, will only be permitted through the planned unit development process.
- (4) The permitted density shall be stated on the conditional use permit.
- (5) ~~The dwelling units must front onto Hancock or Second Street. No more than 30 percent of a single street frontage of a block may be occupied by residential uses. Contiguous residential street frontage must be less than 60 lineal feet. Single-family dwellings legally established prior to (effective date of ordinance) are permitted provided residential use is continued, and not converted to commercial or other use category. New single-family dwellings are permitted that front onto Hancock or Second Street.~~ Density and parking standards for allowable dwelling units must be met.
- (6) One residence per lot with the addition of a tie-down or hangar for an airplane. At a minimum, a paved tie-down or hangar shall be provided on the property, or the

property shall include permanent rights to a private hangar within the subdivision. See Chapter [15.336](#) NMC.

(7) The homes are not subject to the development standards set forth in NMC [15.445.050](#) through [15.445.070](#).

(8) For lots that front onto First Street, the units must be located on the same lots as another use permitted or conditionally permitted in the C-3 zone and may not occupy the first floor storefront area (the portion of the building closest to the primary street). For lots that front onto Hancock or Second Street, dwelling units are permitted as the primary use and may occupy the ground floor. There shall be no density limitation. Private parking areas or garages are not required for dwelling units located within buildings in existence prior to and including June 30, 1999. Parking shall be provided for all new dwelling units within any building constructed after June 30, 1999, in private parking areas or garages on the basis of one parking space for each dwelling unit. As an alternative, the developer may pay a fee-in-lieu in place of providing some or all of the required parking spaces at the current rate established by City Council.

(9) Permitted on the ground floor, one per lot in conjunction with any other use permitted or conditional use in the C-1 zone. On upper floors, dwelling units are unlimited and one parking space per dwelling unit is required.

(10) Permitted above any permitted use in the C-2 or M-5 zone. There shall be no density limitation. Parking shall be provided in private parking areas or garages on the basis of one parking space for each dwelling unit.

(11) Must be located above ground floor commercial uses.

(12) One residence of area not more than 40 percent of the area of the hangar floor, up to a maximum of 1,500 square feet, for an airport caretaker or security officer on each separate parcel.

(13) Permitted in existing dwelling units only. New dwelling units may not be created for this use unless the dwelling unit would otherwise be allowed.

(14) Allowed exclusively for employers or employees of businesses located within this district.

(15) Facility over 40,000 square feet gross floor area requires a conditional use permit.

(16) Allowed in areas designated in industrial area plans.

(17) Limited to facilities owned or operated by a public agency.

(18) Parking garages are a permitted use if developed with commercial uses on the first floor with first floor street frontage associated with the parking use limited to 40 feet or less for ingress or egress. Parking garages with first floor parking use are a conditional use.

(19) A conditional use permit is required if the facility is less than 2,000 feet from the nearest telecommunication facility.

(20) Businesses in the C-1 zone that have hours of operation between 10:00 p.m. and 7:00 a.m. require a conditional use permit.

(21) Drive-up service windows accessory to an existing business on the site with walk-in customer service, such as a drive-up bank window, are allowed only with a conditional use permit. Otherwise, drive-up service windows, except those in service on April 1, 2002, are prohibited. Changes in use will not be allowed.

(22) Retail sales of goods on site not allowed.

(23) Limited to secondhand stores.

(24) Store size is limited to 2,000 square feet gross floor area.

(25) Store size is limited to 5,000 square feet gross floor area.

- (26) Use must demonstrate that it is compatible with airport operations.
- (27) Limited to service stations.
- (28) Limited to card lock fueling only. Retail services are limited to self-vending services.
- (29) Permitted provided the structure is designed for easy conversion to industrial use, including not having fixed seating.
- (30) Limited to 10,000 square feet maximum floor area.
- (31) Allowed indoors only.
- (32) Allowed indoors only. Outdoor use requires a conditional use permit.
- (33) Must be aviation-related. See Chapter [15.332](#) NMC.
- (34) Limited to expansion or change of existing heavy manufacturing uses.
- (35) Shall not be located at the same address as a state-registered marijuana grow site, or within 1,000 feet of the real property comprising a public park, a public elementary or secondary school for which attendance is compulsory under ORS [339.020](#) or a private or parochial elementary or secondary school, teaching children as described in ORS [339.030](#)(1)(a). Distance is measured in a straight line in a radius extending for 1,000 feet or less in any direction from the closest point anywhere on the boundary line of the real property comprising an existing public park, public elementary or secondary school or a private or parochial elementary or secondary school to the closest point of the premises of a dispensary. The premises consist of the dispensary building, or the portion of the building used for a dispensary. Shall not be located within 1,000 feet of another medical marijuana dispensary. Operating hours are limited to the hours between 9:00 a.m. and 8:00 p.m.
- (36) Allows up to 12 mature plants; indoor operations only.
- (37) Indoor use only.
- (38) The use is not allowed within 1,000 feet of the real property comprising a public park, a public elementary or secondary school for which attendance is compulsory under ORS [339.020](#) or a private or parochial elementary or secondary school, teaching children as described in ORS [339.030](#)(1)(a). Distance is measured in a straight line in a radius extending for 1,000 feet or less in any direction from the closest point anywhere on the boundary line of the real property comprising an existing park, public elementary or secondary school or a private or parochial elementary or secondary school to the closest point of the premises of a recreational processor, wholesaler or retailer.
- (39) One-thousand-foot separation between retailer to retailer premises and 1,000-foot separation between retailer to dispensary premises.
- (40) Operating hours limited to the hours between 9:00 a.m. and 8:00 p.m.

Chapter 15.405 Lot Requirements

15.405.010 Lot area – Lot areas per dwelling unit.

- A. In the following districts, each lot or development site shall have an area as shown below except as otherwise permitted by this code:
 - 3. In the AI, AR, C-1, C-2, ~~and~~ C-3, and M-5 districts, each lot or development site shall have a minimum area of 5,000 square feet or as may be established by a subdistrict.

Chapter 15.410 Yard Setback Requirements

15.410.020 Front yard setback.

- B. Commercial.
3. All lots or development sites in the C-3 district shall have no minimum front yard requirements. The maximum allowable front yard shall be 20 feet. In the case of a through lot with two front yards, at least one front yard must have a front yard of 10 feet ~~meet the maximum setback requirement~~. In the case of three or more front yards, at least two front yards must have a front yard of 10 feet ~~meet the maximum setback requirements~~. No parking shall be allowed in said yard. Said yard shall be landscaped and maintained.

15.410.030 Interior yard setback.

- C. Industrial. All lots or development sites in the AI, M-1, M-2, M-3, ~~and M-4,~~ and M-5 districts shall have no interior yards where said lots or development sites abut property lines of commercially or industrially zoned property. When interior lot lines of said districts are common with property zoned residentially, interior yards of not less than 10 feet shall be required opposite the residential districts.

Chapter 15.415 Building and Site Design Standards

15.415.020 Building height limitation.

- B. Commercial and Industrial.
2. In the AI, C-2, ~~C-3,~~ M-1, M-2, ~~and M-3,~~ and M-5 districts there is no building height limitation, except, where said districts abut upon a residential district, the maximum permitted building height shall not exceed the maximum building height permitted in the abutting residential district for a distance of 50 feet from the abutting boundary.
3. In the C-3 district there is no building height limitation, except, where said districts abut upon a residential district, the maximum permitted building height shall not exceed 150 percent of the maximum building height permitted in the abutting residential district for a distance of 50 feet from the abutting boundary.
- ~~4.~~ 3. In the C-4 district, building height limitation is described in NMC 15.352.040(J)(1).

15.415.070 Live/Work Units.

- A. A minimum of seventy-five percent (75%) of a structure's street front façade at street level shall be occupied by nonresidential uses.
- B. The minimum floor-to-floor height of the first floor shall be 13 feet.
- C. Off-street parking is required at a ratio of one parking space for each dwelling unit, unless the developer elects to pay a fee-in-lieu in place or providing some or all of the required parking spaces at the current rate established by City Council.

If off-street parking is provided, private parking areas or garages may not be located between the structure's street front façade and the street.

- D. Live/work units that exceed 2,000 square feet gross floor area must have separate entrances for the business and residential portions of the use.
- E. Within each live/work unit, the living area shall not exceed one-half of the total floor area of the unit.

Chapter 15.420 Landscaping and Outdoor Areas

15.420.010 Required minimum standards.

- B. Required Landscaped Area. The following landscape requirements are established for all developments except single-family dwellings:
 - 1. A minimum of 15 percent of the lot area shall be landscaped; provided, however, that computation of this minimum may include areas landscaped under subsection (B)(3) of this section. Development in the C-3 (central business district) zoning district, ~~and~~ M-4 (large lot industrial) zoning district, and M-5 (craft industrial) zoning district is exempt from the 15 percent landscape area requirement of this section. Additional landscaping requirements in the C-4 district are described in NMC 15.352.040(K). In the AI airport industrial district, only a five percent landscaping standard is required with the goal of "softening" the buildings and making the development "green" with plants, where possible. The existence of the runway, taxiway, and approach open areas already provide generally for the 15 percent requirement. Developments in the AI airport industrial district with a public street frontage shall have said minimum landscaping between the front property line and the front of the building.
 - 3. The following landscape requirements shall apply to the parking and loading areas:
 - a. A parking or loading area providing 10 or more spaces shall be improved with defined landscaped areas totaling no less than 25 square feet per parking space, except that the standard shall be reduced to 12.5 square feet per parking space for development in the C-3 or M-5 zoning districts provided all other requirements of subsection (B) are met for landscaping areas.
 - b. A parking, loading area, or drive aisle which runs adjacent to a property line shall be separate from any lot line adjacent to a street by a landscaped strip at least 10 feet in interior width or the width of the required yard, whichever is greater, except that the landscape strip may be reduced to a minimum of five feet in interior width for development in the C-3 or M-5 zoning districts and may be eliminated along any lot line adjacent to an alley. A parking, loading area, or drive aisle which runs adjacent to a property line in all zoning districts shall be separate from ~~and~~ any other lot line by a landscaped strip of at least five feet in interior

width. See subsections (B)(3)(c) and (d) of this section for material to plant within landscape strips.

15.420.020 Landscaping and amenities in public rights-of-way.

A. Pedestrian Space Landscaping. Pedestrian spaces shall include all sidewalks and medians used for pedestrian refuge. Spaces near sidewalks shall provide plant material for cooling and dust control, and street furniture for comfort and safety, such as benches, waste receptacles and pedestrian-scale lighting. These spaces should be designed for short-term as well as long-term use. In the C-3 and M-5 zoning districts, pedestrian spaces may also include outdoor café-style seating and outdoor display or sales areas. Elements of pedestrian spaces shall not obstruct sightlines and shall adhere to any other required city safety measures. Medians used for pedestrian refuge shall be designed for short-term use only with plant material for cooling and dust control, and pedestrian-scale lighting. The design of these spaces shall facilitate safe pedestrian crossing with lighting and accent paving to delineate a safe crossing zone visually clear to motorists and pedestrians alike.

6. Outdoor café-style seating and outdoor display or sales areas may be provided along sidewalks in the C-3 and M-5 zoning districts provided a clear path for pedestrian travel meeting all ADA requirements is maintained.

Chapter 15.435 Signs

15.435.085 Electronic message centers.

A. Electronic message center (EMC) signs are permitted subject to the limitations shown in the table below:

Electronic Message Center Standards by Display Method, Size, Zoning, and Review Process

Zoning	Size of EMC [1]	Display Method				
		Static Message	Alternating Message	Animated Message	Extended Video Message	Flashing or Rapid Scrolling
Community Commercial and Industrial (C-2, M-1, M-2, M-3, M-4, <u>M-5</u>); other zones not listed	Up to 30 sq. ft.	Allowed	Allowed	Allowed	Prohibited	Prohibited
	> 30 sq. ft. up to 50 sq. ft.	Allowed	Allowed	Allowed [2] or site element review	Prohibited	Prohibited

15.435.105 Sign permit program for portable signs on private property.

A. Purpose. The purpose of the sign permit program is to allow additional temporary and portable signage for properties within the C-2, C-3, M-5, and institutional zones than is otherwise allowed by the municipal code. The goal of the permit program

is to allow additional signage on private property with a coordinated appearance.

- C. Criteria. The following criteria must be met for permit approval under the sign permit program:
 - 1. Number of signs per property: one per 100 feet of street frontage in C-2 zone; one per 15 feet of street frontage, with a maximum of four signs total within the C-3 zone; one per 30 feet of street frontage, with a maximum of four signs total within the M-5 zone; and one per 100 feet of street frontage within the institutional zone. If more than one business is located on a property, at least one sign per business is allowed, as long as the business occupies a discrete space and possesses its own business license.

Chapter 15.440 Off-Street Parking, Bicycle Parking and Private Walkways

15.440.010 Required off-street parking.

- B. Off-street parking is not required in the C-3 district, except for:
 - 1. Dwelling units meeting the requirements noted in NMC 15.305.020, including option to participate in fee-in-lieu program rather than provide off-street parking on site.
- D. Within the M-5 district, the minimum number of required off-street parking spaces shall be 50 percent of the number required by NMC 15.440.030, except that off-street parking spaces for residential uses shall be as specified in NMC 15.305.020.

15.440.030 Parking spaces required.

Use	Minimum Parking Spaces Required
Industrial Types	
Except as specifically mentioned herein, industrial uses listed as permitted in the M districts: M-1, M-2, M-3, and M-4, <u>and M-5</u>	1 for each 500 sq. ft. of gross floor area

Chapter 15.445 Special Use Standards

Article VIII. Small-Scale Food, ~~and Beverage,~~ and Artisan Good Production in Commercial Zones

15.445.400 Application and purpose.

These standards apply to small-scale food, ~~and beverage,~~ and artisan good production in commercial zones. These uses are primarily manufacturing, processing and storage facilities but have accessory tasting rooms, dining areas, or retail space. Some types of retail bakeries, wineries, breweries and distilleries fit in this category, as well as studios for manufacturing products such as metalwork, pottery, and furniture. The purpose is to allow small-scale food, ~~and beverage,~~ and artisan good production in commercial

zones if the uses can meet certain design standards that will maintain the commercial character of the zone. Larger scale food, ~~and~~ beverage, and artisan good production is allowed in certain of Newberg's industrial zones.

15.445.410 Where allowed.

Small-scale food, ~~and~~ beverage, and artisan good production is allowed in the C-2 and C-3 commercial zones if the use meets the development standards listed below. If the use cannot meet the development standards below, then it is a conditional use in the C-2 and C-3 commercial zones and would require review by the planning commission.

15.445.420 Standards.

- A. Retail Use. At least 25 percent of the gross floor area must be for showroom, retail, dining, or similar customer use ~~with a minimum of 1,000 square feet.~~
- B. Not Next to Residential. The site cannot abut a site with residential zoning.
- C. Loading Area. The site must have a loading area for trucks. This could be a loading dock, an on-site paved loading area, or an adjacent alley.
- D. Size Limit. The maximum size of the production area is limited to 10,000 square feet. The maximum size of total facility including retail use is not limited.
- E. Outdoor Storage. Outdoor storage of materials on site is limited to a small (under 400 square feet) fenced and screened area.

APPENDIX

I

HIGH-LEVEL CIRCULATION SUMMARY



MEMORANDUM

DATE: September 16, 2016

TO: NDIP Project Team

FROM: Garth Appanaitis, PE
Jennifer Bachman, PE

SUBJECT: Newberg Downtown Improvement Plan
Task 4.7 High Level Circulation Summary

P# 15201-000

The purpose of this memorandum is to summarize the transportation circulation and connectivity for each travel mode within downtown Newberg and to surrounding areas. The traffic analysis summarizes the impacts of a “road diet” removing one lane of travel along First Street and Hancock Street. This initial concept was advanced from prior analysis conducted for the Transportation System Plan (TSP) and would require additional coordination with ODOT to design and implement. A list of implementing actions is provided that frames the steps necessary to pursue transportation improvements in the downtown.

EXECUTIVE SUMMARY

The transportation analysis reviewed multimodal circulation needs connecting through and within the downtown area. The Draft Transportation System Plan (TSP) includes planned projects to address gaps in the network and provide connections to the downtown area for pedestrians and bicyclists. Key projects are identified along Main Street, College Street, Meridian Street, and Blaine Street to improve accessibility to the downtown core from surrounding neighborhoods, parks, and George Fox University.

Within the downtown area, four primary strategies have been identified to improve multimodal circulation. While these strategies will require design review with City and/or ODOT staff to identify and refine specific locations and treatments, the concepts lay the framework for creating a more inviting destination for residents. The first strategy includes improving north/south connections within downtown, including creating a north-south civic corridor through the downtown area on Howard Street. The corridor would connect the Chehalem Cultural Center on the north end with Memorial Park on the south end. Howard Street is currently signalized at First Street and Hancock Street, enabling pedestrian access to the area.

The second strategy focuses on facilitating pedestrians crossing Hancock Street and First Street by decreasing the crossing distance and providing enhanced pedestrian crossings. Due to the volume of vehicle traffic traveling along both Hancock Street and First Street, and the existence of the coordinated traffic signals within the downtown grid, the addition of pedestrian signals at some locations where no signals exist would provide for a less intimidating and safer crossing environment. A discussion of potential locations and considerations is provided in the transportation technical memorandum.



This crossing distance could be reduced through the third primary strategy, implementation of a partial road diet through the downtown couplet (on Hancock Street and First Street), which could remove a lane of travel to reduce each street to two vehicle lanes. This improvement may be feasible for a portion of the couplet¹ due to the reduced traffic flow through downtown following the completion of Phase 1 of the Newberg-Dundee Bypass. The improvement may be implemented on a temporary or permanent basis, pending the relief provided by the bypass and future traffic growth. Due to ODOT's control of the roadway and existing freight designations, this project would require continued coordination with ODOT to achieve policy support with the Oregon Freight Advisory Committee and Oregon Transportation Commission. Specific design treatments would also be coordinated and reviewed by ODOT. The implementation of the road diet would provide opportunities to enhance the multimodal system along both Hancock Street and First Street. These improvements could include widening existing bicycle lanes, including buffered bicycle lanes, widening sidewalks and/or pedestrian space.

The fourth strategy addresses the big idea calling for the Second Street Mixed Use District, and calls for the improvement of 2nd Street to create a more inviting environment. The primary work to be done is the rehabilitation of current pavement, replacement of about 25 percent of the sidewalks and curbs, and restriping to delineate parking, all of which can be done within current rights-of-way. This improvement will better support envisioned infill and redevelopment of the area as a mixed-use and residential district – creating a more inviting environment for investment and development.

POLICY CONSIDERATIONS

Several streets within the downtown area are highway segments under the jurisdiction of ODOT. The OR 99W couplet along First Street and Hancock Street is classified as a freight route and Reduction Review Route (which requires approval of Oregon Freight Advisory Committee for proposed capacity reductions). Other state routes that pass through the downtown area include OR 240 via Main Street and OR 219 via College Street. The designations of these highways will continue to guide policy requirements and design decisions in the downtown area. Therefore, continued coordination with ODOT will be needed to develop and refine any concepts and design details related to transportation projects on these corridors.

Exploration of a special transportation area (STA) designation may provide future design flexibility along the corridor in order to address local access needs. Downtown Newberg fits the criteria for STAs as described in the Oregon Highway Plan and OAR 660-022-0010(10). However, other distinct benefits of an STA designation for the area may be limited. Traffic analysis indicates that the mobility criteria of an STA may not be sufficient for the transportation network and alternative mobility standards will likely be required. Since STA designation would ultimately require approval of Oregon Transportation Commission (OTC), such designation options will continue to be explored through coordination with ODOT staff.

¹ Partial implementation of the road diet appears feasible based on preliminary traffic analysis. A full road diet conversion to two lanes for the entire length of the couplet (Harrison Street on the west extent of the couplet to River Street on the east extent) was also assessed, however such conversion does not appear to be feasible since it would overly restrict critical traffic movements.



AUTO AND FREIGHT

This section summarizes the traffic analysis that was conducted to assess the road diet concept – removing one lane of travel on both Hancock Street and First Street. This general concept was supported through the prior TSP work as the preferred treatment through downtown to be considered for further refinements through the NDIP. This analysis builds on and refines prior analysis that was conducted for the TSP, including collecting additional traffic counts at the four remaining traffic signals not included in the TSP and updating the analysis to reflect ODOT’s current traffic signal timing along the corridor.

Intersection Capacity Analysis

Evening peak hour traffic operations were analyzed at the eight signalized intersections along First Street and Hancock Street. Traffic counts for four of the intersections were collected and analyzed as study intersections in Newberg’s TSP. Counts at the remaining four intersections were collected during the evening (4:00 to 6:00 p.m.) peak periods on November 18, 2015. The traffic counts for all intersections were seasonally adjusted to the peak seasonal travel. Future traffic volumes for these locations were developed using the Newberg-Dundee travel demand model. The following four scenarios were analyzed for the p.m. peak hour:

- 2015 Existing Conditions – Current corridor conditions.
- 2035 No Build – The existing corridor configuration with additional traffic growth, including circulation impacts related to the completion of Phase 1 of the Newberg-Dundee bypass.
- 2035 Road Diet – Similar to 2035 No Build scenario, but removes one lane of travel on both First Street and Hancock Street, including some traffic diversion to other roadways.
- 2035 Road Diet Mitigation – Reduces impacts of the road diet by retaining some of the existing three lane cross sections, including:
 - Westbound on Hancock Street from east end of couplet to College Street (outside lane drops as a right turn lane)
 - Westbound on Hancock Street approaching Main Street (outside lane drops as a right turn lane)²
 - Eastbound on First Street approaching College Street (inside lane drops as a left turn lane)

Intersection Performance Measures

Level of service (LOS) ratings and volume-to-capacity (V/C) ratios are two commonly used performance measures that provide a good indication of intersection performance. In addition, they are often incorporated into agency mobility standards.

- **Level of service (LOS):** A “report card” rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. LOS D and E are progressively worse operating

² The length of the turn lane would be designed based on vehicle queue storage and may extend the block length to Garfield Street.



conditions. LOS F represents conditions where average vehicle delay has become excessive and demand has exceeded capacity. The City of Newberg uses LOS D as the intersection performance standard.

- **Volume-to-capacity (V/C) ratio:** A decimal representation (typically between 0.00 and 1.00) of the proportion of capacity that is being used at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection, approach, or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, congestion increases and performance is reduced. If the ratio is greater than 1.00, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays. The performance standard that ODOT uses along the corridor is $v/c = 0.85$.

Traffic Analysis Summary

A summary of analysis results for the four scenarios are listed in Table 1. All eight study intersections are currently operating within ODOT’s mobility target v/c of 0.85. The 2035 No Build scenario will continue to meet mobility standards for all locations except the intersection of Hancock/College, which would have a v/c ratio of 1.0. As noted in the TSP, this intersection is the primary bottleneck of the downtown traffic circulation and could be a candidate for alternative mobility targets.

Under the 2035 Road Diet scenario (which assumes a complete reduction to two lanes along the couplet) the Hancock/College intersection and three other intersections would exceed the mobility target, even with some traffic assumed to divert to adjacent roadways. However, by retaining portion of a three lane section, the traffic operations can be improved to the No Build condition level. The intersections would be mitigated with the following actions:

- Hancock/Meridian – Retaining three lanes of traffic flow along Hancock would allow the intersection to meet the mobility target
- Hancock/College – Retaining the three lane section and dropping the outside lane as a right turn lane (westbound on Hancock onto College) would allow the intersection to operate with a v/c of 0.99. While this would still exceed the performance target of 0.85, the operations would operate relatively comparatively to conditions under the 2035 No Build scenario.
- First/College – Retaining the three lane section and dropping the inside lane as a left turn lane (eastbound on First to College) would allow the intersection to meet the mobility target.

Table 1: Study intersection operations – PM Peak Hour Conditions

Intersection	Existing 2015		2035 No Build		2035 Road Diet		2035 Mitigated	
	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
Hancock/ Meridian	B	0.78	B	0.84	E	1.08	B	0.82
Hancock / College			C	1.00	F	1.29	C	0.99
Hancock/ Howard	A	0.66	A	0.60	A	0.82	A	0.79
Hancock / Main			C	0.85	B	0.85	C	0.83
First / Meridian	A	0.81	B	0.66	B	0.87	B	0.85
First / College			B	0.57	B	0.87	B	0.80
First / Howard	A	0.54	B	0.49	B	0.63	C	0.64
First / Main			B	0.56	B	0.70	C	0.72

Note: **bolded** values indicate that the mobility target of $v/c = 0.85$ is exceeded



Intersection Queuing Analysis

In addition to the intersection operations, intersection queuing was assessed at the eight study intersections using SimTraffic, which estimates the 95th percentile vehicle queue lengths. The queuing analysis accounted for a limited amount of detail and included the following assumptions:

- Driveways and cross streets included in the eight study intersections are not modeled.
- No rail events were included
- Parking maneuvers were not modeled. Assumed no changes to parking friction and impacts to traffic flow relative to the existing condition.

For most locations, traffic queuing would be accommodated within available storage under the various scenarios. However, in some locations traffic queues may extend beyond upstream intersections during the peak period, including along College Street. While lane configurations could be modified in some cases (including the addition of channelized turn lanes) to reduce the impacts of traffic queuing, such mitigation would increase the intersection footprint and the distance that pedestrians and bicycles would have to cross.

Table 2: 95th Percentile Traffic Queues – PM Peak Hour Conditions

Intersection	Approach	Lane	Available Storage	95th Percentile Queue Length (feet)			
				2015 Existing	2035 No Build	2035 Road Diet	2035 Road Diet Mitigated
Hancock/ Meridian	WB	T/LT/RT	-	325	750	725	725
	NB	T/LT	250	200	150	150	150
	SB	T/RT	-	1175	900	850	400
Hancock/ College	WB	T/LT/RT	-	400	625	600	525
	NB	T	250	175	225	200	200
	SB	T/RT	-	825	1250	1250	1250
Hancock/ Howard	WB	T/LT/RT	-	150	150	125	200
	NB	T/LT	250	150	200	200	175
Hancock/ Main	WB	T/LT	-	350	250	200	525
	WB	RT	175	200	325	200	400
	NB	T	225	200	250	250	250
	NB	LT	75	75	150	150	125
	SB	T	-	625	200	175	250
	SB	RT	175	225	175	125	175
First / Meridian	EB	T/LT/RT	-	200	150	175	200
	NB	T/RT	-	75	100	100	100
	SB	T/LT	250	250	275	275	250
First / College	EB	T/LT/RT	-	250	125	175	250
	NB	T/RT	-	100	125	150	150
	SB	T	250	250	275	275	250
	SB	LT	75	175	175	175	175
First / Howard	EB	T/LT/RT	-	225	100	150	200
	NB	T/RT	-	175	200	200	200
	SB	T/LT	250	125	175	150	200
First / Main	EB	T/LT/RT	-	250	1200	1300	1275
	NB	T/RT	-	150	600	400	300
	SB	T	225	275	175	150	150

Note: Lane Definitions – T = Through, RT = Right Turn, LT = Left Turn



MULTIMODAL CONNECTIVITY

Connectivity for pedestrian, bicycle and transit trips within the downtown area is summarized in the following sections.

Pedestrian Circulation

Providing good pedestrian circulation allows flexibility for travelers making shorter trips. Newberg is approximately 2.5 miles from end to end (Providence Drive to W 3rd Street), so walking to destinations within the city is feasible if pedestrian facilities are in place. The pedestrian constraints vary throughout the city. In the downtown core one of the key challenges is providing enhanced crossings while through other areas of town the challenge is providing a full network of sidewalks and curb ramps without gaps.

Pedestrian Circulation Improvements through Downtown

The downtown core along First Street and Hancock Street is approximately $\frac{3}{4}$ mile long with dense commercial and business uses that contribute to a walkable community. The average person could walk from end to end in about 20 minutes at a relaxed pace.

Through the downtown core, the road diet concept would convert First Street and most of Hancock Street from three travel lanes to two travel lanes, which would allow pedestrian improvements such as wider sidewalks and curb bulb-outs at intersections. Those improvements enhance pedestrian safety by shortening the crossing width and increasing pedestrian visibility to drivers.

The Civic corridor runs north-south through the downtown area, centered on Howard Street. At the north end of the civic corridor is the Chehalem Cultural Center bordered by Sherman Street, and at the south end of the civic corridor is Memorial Park bordered by 5th Street. East and west the corridor is bordered by School Street and Blaine Street. Howard Street is currently signalized at First Street and Hancock Street, enabling pedestrian access to the area. Either Blaine Street or Washington Street are being recommended for enhanced pedestrian crossing through downtown. While Blaine Street is considered part of the civic corridor, a signal at Washington Street would provide more evenly spaced signalized crossings of First Street and Hancock Street. Along this corridor options that enable easy road closures for street festivals, such as removable bollards, should be considered.

To encourage travel by foot, pedestrians need to be able to cross First Street and Hancock Street safely and at regular intervals to reach destinations and travel north or south of the downtown core. A majority of downtown intersections have striped crosswalks with curb ramps. However, crossing three lanes of traffic at an unsignalized intersection is cause for some pedestrian safety concerns and can inhibit pedestrian connectivity. With the road diet, both First Street and Hancock Street would be reduced to two travel lanes which is an improvement for pedestrian crossings, but the city should explore additional pedestrian crossing improvements.



The National Cooperative Highway Research Program (NCHRP) provides guidance on when a crossing may warrant a pedestrian signal³. Some of the key criteria for determining whether a pedestrian signal (or enhanced crossing) is warranted include:

- **Pedestrian volume**⁴ - minimum of 20 pedestrians an hour if speed limit is 35 mph or less, 14 pedestrians per hour when speed exceeds 35 mph
- **Distance to the nearest traffic signal** – according to the MUTCD, a traffic signal should be considered if a pedestrian has to walk 300 feet or more in out of direction travel to the nearest signalized or stop controlled crossing
- **Presence of Pedestrian generators** - such as schools, transit stops, event venues, etc.
- **Vehicle speeds and volumes** – thresholds for combinations of speeds and volumes include:
 - if vehicle speeds are 35 mph or less minimum traffic volumes of 200 vehicles per hour on the major roadway can trigger an enhanced crossing if minimum pedestrian volumes are met (20 pedestrians/hour)
 - if vehicle speeds exceed 35 mph and enhanced crossing is recommended if minimum pedestrian volumes are met (14 pedestrians/hour)
- **Number of lanes being crossed and distance** – anytime a pedestrian is crossing more than one travel lane in each direction, the chance increases that the driver in the second travel lane will not see the pedestrian and may not be able to stop in time.
- **Pedestrian delay** – the amount of time a pedestrian waits for an adequate gap in traffic to cross. When pedestrian delay is exceedingly long, there is a tendency to attempt crossing during a shorter gap which endangers pedestrian safety.
- **Population characteristics** – some areas may have high pedestrian volumes with slower walking speeds that require more time to cross.

Along First Street and Hancock Street through the downtown core, there are four signalized north-south crossings, with spacing that ranges from 500 feet to 1,000 feet. To improve pedestrian circulation, additional enhanced crossings are recommended for consideration at Edwards Street and either Blaine Street or Washington Street. Adding enhanced crossings at these locations improves overall spacing between signalized crosswalks. The crossing at Edwards Street connects a key destination, George Fox University, to the downtown core. The crossing at either Blaine Street or Washington Street improves pedestrian circulation along the civic corridor.

Enhanced crossings treatments that could be considered for installation along Newberg's downtown core include:

³ Transportation Research Board TRB. *Improving Pedestrian Safety at Unsignalized Crossings*. National Cooperative Highway Research Program (NCHRP) Report 562. March 2006.

⁴ Note that the MUTCD pedestrian traffic signal warrant has a much higher pedestrian volume threshold than the NCHRP Report 562 recommendation. The MUTCD maintains a minimum of 107 pedestrians per hour for the four-hour warrant, and a minimum of 133 pedestrians per hour for the two-hour warrant. The NCHRP report recommends a minimum of 20 pedestrians per hour to be considered an activated crossing treatment.



- An activated flashing pedestrian beacon mounted on the side of the road
- An activated flashing pedestrian beacon hanging over the travel lanes
- A full signal
- A HAWK signal (partial signal) if located mid-block

There are pros and cons for each crossing treatment. The flashing beacons offer a lower cost option, but compliance is not as high as a full signal or a HAWK signal. Compliance rates for pedestrian activated flashing beacons range from 31% to 74%, while compliance rates for signals (whether a HAWK or a full signal) range from 93% to 99%³. A HAWK or a full signal can also be connected to the other signals along the corridor and programmed to allow crossings at specific times to reduce vehicle delay and stops along the corridor. The delay experienced by vehicles will vary between the type of crossing treatment and the level of pedestrian activity. Existing pedestrian crossing activity at unsignalized intersections has the potential to delay vehicles that stop for pedestrians. The specific amount of delay (and resulting level of service) for vehicles due to enhanced crossing treatments would depend on design details of the crossing treatment, as well as potential coordination with the existing traffic signals. The impacts of these potential systems were not directly modeled, but could range from nominal delay for signals that were coordinated with the existing system to several seconds of delay (based on the time to cross two lanes of traffic) for random crossing occurrences. The average delay for each vehicle would likely be less since many vehicles would not be stopped unless pedestrian activity significantly increases.

At the west end of downtown the Mill District is targeted for improvements to make it a pedestrian focused area with potential for “craft industrial” uses. To encourage pedestrian flow to the area, enhanced pedestrian crossings along Sheridan Street and Main Street are recommended. On-going coordination with City staff and ODOT will be required to determine specific location and pedestrian crossings treatments.

Pedestrian Connectivity Beyond Downtown Core

Outside of the downtown core, filling sidewalk gaps, improving crossings, and even pedestrian lighting are key to improving pedestrian circulation. Ensuring routes that connect key destinations (such as schools, transit stops, neighborhood access points, and shopping or business areas) to downtown as well as to neighborhoods will enhance pedestrian circulation. Newer developments typically have ADA-compliant sidewalks and curb ramps, however, the older areas have frequent gaps in the sidewalk network.

The following paragraphs summarize how pedestrians from different parts of the city could connect to the downtown area. The draft Newberg TSP identifies projects to improve pedestrian circulation and addresses some of the items identified in the following sections.

East to downtown

From the east side of town, near Providence Hospital, a pedestrian would need to use OR 99W to connect to downtown. Other routes all have sidewalk gaps including on First Street between Fernwood Road/2nd Street and Villa Road.



George Fox University (north of downtown) to downtown

From George Fox University just northeast of downtown, both Meridian Street and College Street provide sidewalk access to downtown, and both streets have signalized intersections at Hancock Street and First Street. The city may want to consider providing an additional enhanced crossing at Edwards Street due to the potential high volume of pedestrian traffic generated by the campus.

Northwest to downtown

From the far north end of Newberg, near the Chehalem Valley Middle School, there are gaps in sidewalk that make connecting to the downtown area as a pedestrian challenging. Access to this area is limited due to the separation created by the railroad tracks. Main Street, Washington Street, College Street and Meridian Street are the key roadways that cross the railroad tracks, providing access between the north area and downtown. In the north-south direction, segments of Chehalem Drive, Main Street, and College Street have sidewalks, but all include gaps. In the east-west direction, Mountainview Drive and Foothills Road have long sections of sidewalk.

Northeast to downtown

From the northeast area near Crestview Drive/Springbrook Road, sidewalks exist along most of the arterials leading into downtown (although there are some gaps with sidewalk only on one side of the roadway). One route with minimal sidewalk gaps for a pedestrian to walk to the downtown area is along Springbrook Road to Haworth Avenue to Fulton Street and finally Meridian Street.

Due to the railroad tracks, there is limited connectivity particularly in the north-south direction through this area. Meridian Road, Villa Road and Springbrook Road are the only roadways that cross the railroad tracks, providing access between the northeast area of the city and downtown.

South to downtown

From south of downtown near the Ewing Young Park or Edwards Elementary School there are three primary north-south streets with sidewalks that connect to downtown: Blaine Street, College Street, and Meridian Street (although there are some gaps on Blaine Street). Where Blaine Street enters the downtown area, the intersections at Hancock Street and First Street are not signalized, which is one of the recommended locations to consider an enhanced pedestrian crossing. Washington Street is the other recommended option for an enhanced pedestrian crossing in the downtown area. There are advantages and disadvantages to both options. Blaine Street provides more direct access to the south part of Newberg, and is considered part of the civic corridor. However, with a signal already located at Howard Street, pedestrians would get more evenly spaced crossing opportunities if the enhanced crossing is located at Washington Street, and Washington Street extends further to the north crossing the railroad tracks which is a barrier for several other streets including Blaine Street.

Sidewalk extends further south on College Street to the railroad tracks, and further southwest of town on one side of Dayton Road to the city limits.

In the area south of downtown several of the local neighborhood streets have sidewalks, aiding pedestrian circulation.



Bicycle

The bicycle network in Newberg includes bike lanes and shared roadways. The most continuous bike path is along OR 99W. Much like with sidewalks in the city, there are bike lanes near the newer commercial and residential areas with fewer bike lanes in the more established areas of town.

Shared roadways occur where bicycles and motor vehicles share the same travel lane. The most appropriate roadways for this type of shared use are those with low speeds and low traffic volumes (3,000 vehicles per day or fewer)⁵. Signed shared roadways are where facilities are designated and signed as bicycle routes and serve to provide continuity to other bicycle facilities (e.g., bicycle lanes) or to designate a preferred route through a community. Such a route typically has warning signs and often has shared roadway pavement markings. All local streets in Newberg are low speed, low volume roadways that could be classified as shared roadways.

Through the downtown core, both First Street and Hancock Street have bicycle lanes. With the recommended road diet from three to two lanes on each of those roadways, buffered bicycle lanes could be striped. With posted speeds of 25 mph through the downtown area and frequent parking turn over, a buffer is recommended between the on-street parking and bicycle lane. Positioning the buffered area between the parking and bicycle lane reduces the likelihood of car doors opening into the bicycle lane unexpectedly.

In order to appreciate the bicycle facilities through the downtown area, bicyclists need to be able to connect to downtown from the outskirts of the city as well as navigate around the city.

Improving bicycle circulation can range from designating bicycle boulevard routes through neighborhood streets to installing bicycle lanes, wayfinding signs, and bicycle detection on arterial facilities. Low cost bicycle boulevard treatments such as route signing, and vehicle speed and volume management techniques, can greatly enhance the travel experience for the bicyclist and encourage ridership.

As Newberg continues to develop, bicycle lanes and bicycle boulevards need to connect the new development to the downtown area as well as around the neighborhoods surrounding the core. The draft Newberg TSP identifies projects to improve bicycle circulation and addresses some of the items identified in the following sections.

East to downtown

From the east side of town, near Providence Hospital, a bicyclist could reach downtown using bike lanes on Providence Drive or Brutscher Street, to Fernwood Road and then onto First Street. Alternatively, OR 99W has wide shoulders that turn into bicycle lanes near Brutscher Street. However, vehicle speeds on OR 99W are 35 mph within City limits, which may make some bicyclists feel uncomfortable. There are gaps in the bike lane network along Springbrook Road in the southbound direction.

⁵ The Federal Highway Administration's *Manual on Uniform Traffic Control Devices* guidance states that shared lane markings should not be placed on roadways with a speed limit above 35 m.p.h. <http://mutcd.fhwa.dot.gov/>



George Fox University (north of downtown) to downtown

From George Fox University just northeast of downtown, Meridian Street is marked as shared roadway and is signalized at Hancock Street and First Street.

Northwest to downtown

From the far north end of Newberg, near the Chehalem Valley Middle School, there are gaps in bicycle lanes into the downtown area. Access to this area is limited due to the railroad tracks. Main Street, Washington Street, College Street and Meridian Street are the key roadways that cross the railroad tracks, providing access between the north area and downtown. Main Street and Villa Road are the only north-south streets that have segments with bicycle lanes that could connect bicyclists from the northeast corner of the city to downtown or vice versa. In the east-west direction, parts of Mountainview Drive have bicycle lanes.

Northeast to downtown

From the northeast area near Crestview Drive/Springbrook Road, a bicyclist has a few options getting to downtown. There are bicycle lanes along Springbrook Road that can connect to 2nd Street and into downtown, or to shared roadway markings on Haworth Avenue and Villa Road.

In this area, the railroad tracks limit connectivity particularly in the north-south direction. Meridian Street, Villa Road and Springbrook Road are the only roadways that cross the railroad tracks, providing access between the northeast area of the city and downtown.

South to downtown

From south of downtown near the Ewing Young Park or Edwards Elementary School there is a network of marked shared roadways that lead to the downtown area, but no bike lanes. In the north-south direction, Meridian Street is marked as a shared roadway using sharrows. In the east-west direction 9th Street is marked as a shared roadway.

Transit Access

The Yamhill County Transit Area (YCTA) provides limited transit service within Newberg as well as beyond the city limits to other destinations along the 99W corridor. Within Newberg, two bus lines circulate. Route 5 serves as a north-south connection and Route 7 provides an east-west connection. These two routes share common stops at First Street/Main Street and Hancock Street/Main Street, allowing transit users to transfer between the routes.

To improve transit connectivity and use, more frequent service and increasing the number of bus stop locations where transit users access the service could be considered. Routes 5 and 7 run once per hour, which limits the flexibility of transit riders. Locating bus stops at closer intervals, especially through downtown or other high use areas will improve connectivity for users. For example, Route 7 runs along First Street, Second Street and Hancock Street through the downtown core, yet only stops at Main Street. There is a balance between stopping too frequently which adds delay to transit users, and not enough stops which limits accessibility. Finding that balance will improve the areas connectivity to transit services.



Improving bus stops with sidewalk access, shelters, and benches will also improve access to transit, especially during inclement weather. A few bus stops, such as the Main Street stop include a shelter and benches, however most bus stops in Newberg do not include those amenities.

As transit service improves and expands, a transit center may be considered for development within the downtown area. A transit center could bring with it grants for public art and funds for city beautification projects. Also, when expanding transit service, YCTA generally prefers to stop in a traffic lane rather than using pull-outs.

PROGRAMMING FOR IMPLEMENTATION

Table 3 summarizes the actions that would be required to implement the transportation components of the NDIP.

Table 3: NDIP Transportation Implementation Actions

No.	Action	Timeline (Year)				
		1	2	3	4-6	7-10
T1	Newberg Policy Support – Newberg City Council adopt Newberg TSP and NDIP with policy support for coordinating with ODOT and pursuing a road diet option on Hancock and First.	X				
T2	Determine additional policy and analysis gaps – Coordinate with ODOT to determine additional analysis or policy gaps needed to support decisions to pursue a road diet concept. Supporting analysis may include considerations of alternate mobility targets, pursuit of a special transportation area (STA), roadway classifications, and potential lane configuration and estimated life cycle for road diet improvements. Prepare staff report supporting policy decisions and recommendations.	X				
T3	Convene City and ODOT stakeholders to confirm the road diet design concepts, including location and treatment for enhanced pedestrian crossings (may be pursued separately). Prepare intergovernmental agreement (IGA)	X				



No.	Action	Timeline (Year)				
		1	2	3	4-6	7-10
T4	Present staff report and recommendations to Oregon Freight Advisory Committee (OFAC)		X			
T5	Upon acceptance by OFAC, present staff report and recommendations to Oregon Transportation Commission.		X			
T6	Bypass acclimation and design – Following the opening of the Newberg-Dundee Bypass (anticipated 2017), a period (potentially 6 months) will be required for traffic circulation impacts to settle. Following this period, and policy acceptance from OTC, proceed with design. Design road diet improvements and refine phasing of pilot project.			X		
T7	Construct Hancock pilot improvement - Construction of pilot, temporary improvement on Hancock, which may include the enhanced pedestrian crossing elements. This may be timed to coincide with other on-going maintenance improvements including restriping with an overlay				X	
T8	Construct remainder of road diet improvements.				X	