Downtown Molalla Development and OR 211 Streetscape Plan

29 June 2007

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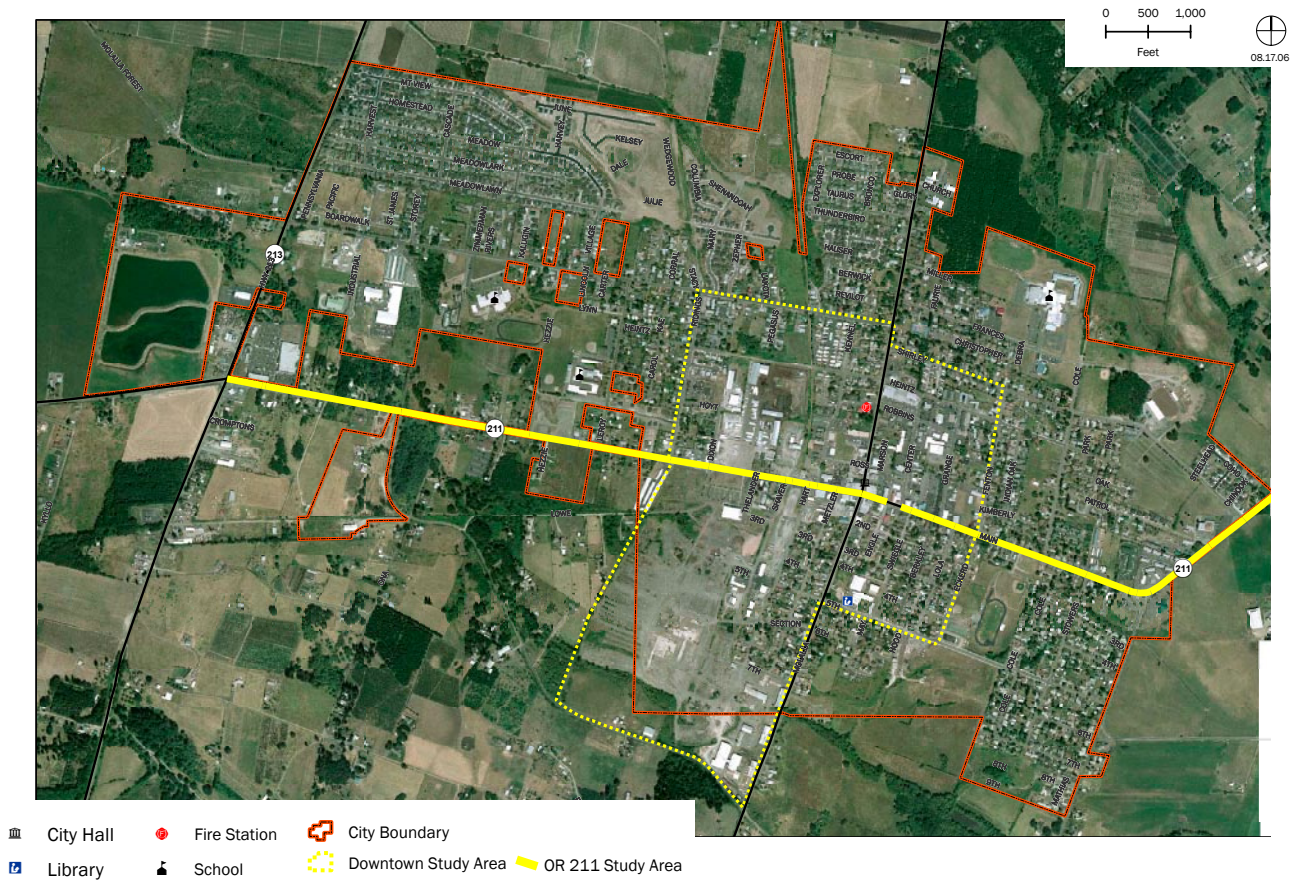
1. INTRODUCTION

The Molalla Downtown Development and OR 211 Streetscape Plan (Plan) will guide future growth in the City of Molalla's downtown. Three land use, zoning, and design concepts to support a compact, multi-modal downtown were explored over the course of a 13-month public process. Several street design concepts and standards for downtown streets were developed; recommendations are included in this summary document. A streetscape plan for OR 211 between the western and eastern termini within the City's Urban Growth Boundary (UGB) identifies roadway features with the overall objective of supporting a vibrant and safe downtown and highway corridor. This project builds on current City planning and community efforts and contributes to a comprehensive approach for implementation.

This Plan has been recommended to the City Council by the Planning Commission for adoption. The next steps include adopting the Plan into the City's Comprehensive Plan along with necessary amendments to the City's Transportation System Plan (TSP), Capital Improvement Program (CIP) project list, municipal code, and zoning ordinance.

Study Area

There are two sub-areas within the Study Area. The 403-acre Downtown Study Area includes the existing downtown retail core plus adjacent residential areas and underutilized industrial areas with redevelopment potential. The OR 211 Study Area includes the entire highway right of way within the City UGB and a linear strip of land to the north and south, for purposes of examining transportation network connectivity.



Downtown Development & OR211 Streetscape Plan

Existing Conditions: Citywide

Figure 1.1: Existing Conditions

Project Objectives

The following are the City's stated project objectives (according to the Scope of Work)*:*

- Create a comprehensive concept for land use, urban design, and transportation for an expanded Downtown Molalla.
- Determine the appropriate mix and location of retail, office, and residential land uses to ensure that downtown continues to serve as the City's vibrant core district.
- Provide for vehicular, pedestrian, and bicycle connectivity and transit access to and within downtown and along the OR 211 corridor west to OR 213 and east to Mathias Road.
- Identify existing and future parking needs downtown; develop parking standards which support the community vision for a compact downtown.
- Consider the advantages and disadvantages of designating a portion of the downtown area as an Historic District.
- Identify the appropriate transportation network to serve a growing downtown, and assess the need for specific additional transportation improvements. Consider special street design concepts and standards for City downtown streets.
- Assess the suitability and benefits and/or negative impacts of designating OR 211 downtown as a Special Transportation Area (STA), and the OR 213-OR 211 gateway an Urban Business Area (UBA) (per Oregon Highway Plan, Policy 1B).
- Develop a streetscape plan for OR 211 between the OR 213 gateway east through downtown and to Mathias Road, which supports adjacent/planned land uses and which is consistent with any proposed highway designations (STA, UBA).
- Coordinate current City planning and community efforts aimed at Molalla's downtown revitalization.
- Identify necessary amendments to the City's Comprehensive Plan, Development Code, TSP, Roadway Standards, and Capital Improvement Program project list to implement the Molalla Downtown Development & OR 211 Streetscape Plan.
- Develop a prioritized Implementation Plan which considers both public and private investments and other actions needed to support downtown redevelopment and OR 211 developments.

2. PLANNING PROCESS

2. PLANNING PROCESS

The Molalla Downtown Development & OR 211 Streetscape Plan (Plan) was developed from May 2006 – June 2007 and included extensive agency and public involvement.

Cogan Owens Cogan (COC) was the lead contractor for the project. A Project Management Team (PMT) consisting of representatives from COC, the City of Molalla, the Oregon Department of Transportation (ODOT), and the Department of Land Conservation and Development (DLCD) guided the work of the consulting team throughout the process.

A citizen-based ten-member Downtown/Oregon 211 Task Force (DOTF) helped guide the process from a citizen and property owner perspective. Members of the City Council, Planning Commission, Team for Economic Action in Molalla (TEAM) and Chamber of Commerce participated on the committee, in addition to residents, business and property owners.

A multi-agency Technical Advisory Committee (TAC) provided review and comment on technical memoranda and other key deliverables throughout the course of the project. TAC representatives from the City of Molalla, Clackamas County, ODOT, DLCD, the State Historic Preservation Office (SHPO), and South Clackamas County Transit District (the local transit service) provided important contributions throughout the planning process.

More than 145 citizens were directly involved in the planning effort. All Molalla area residents were notified of the planning processes through two water bill inserts and several highly-visible *Molalla Pioneer* newspaper articles. Information was made available on the City Web site. The following meetings were held throughout the course of Plan development:

- Eight PMT meetings
- Seven DOTF meetings
- Four TAC meetings
- Three public workshops

Two of the DOTF meetings were held jointly with the Planning Commission.

Public Meeting #1 (9/21/06)

3. VISION & GUIDING PRINCIPLES

Vision

Over the next twenty years, Molalla will thrive and grow, implementing plans that represent the community's unique identity, vision, and goals. Molalla will continue to grow as a healthy, welcoming community with a thriving business district, safe pedestrian and bicycle routes and crossings. It will be a tourist destination, based on the area's natural resources and recreational opportunities. Businesses will be supported and there will be safe, identified routes for freight.

Guiding Principles

1. Supporting a Healthy Local Economy & Thriving Downtown

Downtown

- Ensure an enjoyable shopping experience by creating a pleasant, attractive pedestrian atmosphere and keeping storefronts and streets/ sidewalks clean. Encourage the local business community to help maintain the sidewalk environment.
- Develop strategies to draw customers (both local residents and tourists) to local businesses, using the marketing list and other resources.
- Encourage business diversity and work to bring needed businesses to the downtown area (e.g., a movie theater).
- Encourage "downtown" uses like pedestrian-oriented retail and mixed use.
- Accommodate differences in architectural style while preserving the overall character of the city.
- Keep public buildings (such as the library) downtown.

Downtown and OR 211

- Provide for growth, including future infrastructure needs (sewer, water, streets, sidewalks, etc.) and balance the needs of different users (pedestrians, bicyclists, trucks, cars, etc.).
- Ensure parking availability.
- Improve connections for all modes between important destinations, e.g. park and school, trees, tennis court, and interpretive center.
- Support increased transit ridership.

2. Creating a Recreational Concept

Downtown

- Develop a recreational concept that includes more parks in the downtown area, using the existing water park as inspiration.

Downtown and OR 211

- Provide more open space and green connections (tree-lined streets and walking paths).

3. Improving Walking and Bicycling Conditions

Downtown and OR 211

- Improve pedestrian crossing opportunities in the downtown area.
- Identify bikeway and walkway improvement opportunities throughout the Downtown and OR/211 Streetscape study areas.
- Strive for universal access to all important destinations for all residents, regardless of age, physical capabilities, or skill.

OR 211

- Where appropriate, develop alternative routes for through truck traffic, in order to improve conditions for pedestrians as well as freight.

4. Establishing a Clear Identity

Downtown

- Preserve historic buildings and enhance the qualities that they bring to the downtown core.
- Preserve Molalla's homey, small-town atmosphere and enhance the unique character of downtown.
- Preserve mountain views.
- Preserve and enhance continuity and flow throughout downtown.
- Develop an identifiable center for Molalla.
- Develop a transitional area, e.g., at the hospital and Safeway.
- Help the town to grow strategically, including opportunities for working, living, and shopping.
- Encourage development in urban areas and preserve rural areas.
- Develop a clear, concise idea of what will be allowed with new development.

Downtown and OR 211

- Develop clear signage and well-marked connections between destinations.

5. Quality of Life

Downtown

- Support safe routes to schools and develop community amenities.
- Support and develop a quality labor force through workforce training and education.

6. Implementation

- Support TEAM in implementation efforts.
- Encourage communication between local business owners by developing a marketing list of current businesses.
- Keep the project cost-effective.
- Develop funding options for improvement and maintenance of greenways (such as Adopt-a-Path and Rails-to-Trails).

4. EXISTING CONDITIONS

Architectural Survey

Downtown Molalla is home to a wide variety of architectural styles and construction types. Its commercial, residential, agricultural, industrial, and institutional buildings also represent a range of eras, dating as far back as the late nineteenth century and as recently as the early twenty-first.

Like much of the West Coast, Molalla has a number of bungalows in its Downtown, as well as a mixture of other residential types, including Cape Cod, townhouse, ranch, and manufactured home. The significant institutional buildings date to the mid-twentieth century.

Agro/industrial shed buildings are sprinkled throughout Downtown, and some of their design elements, especially the corrugated metal, have been incorporated into other commercial buildings. There are a number of Western Storefront buildings, with large windows, significant awnings, and false fronts. There are also many post-industrial, auto-oriented buildings (including strip malls and stand-alone structures), constructed primarily of concrete.

There are also several eclectic buildings Downtown that individually include elements from a range of architectural styles.

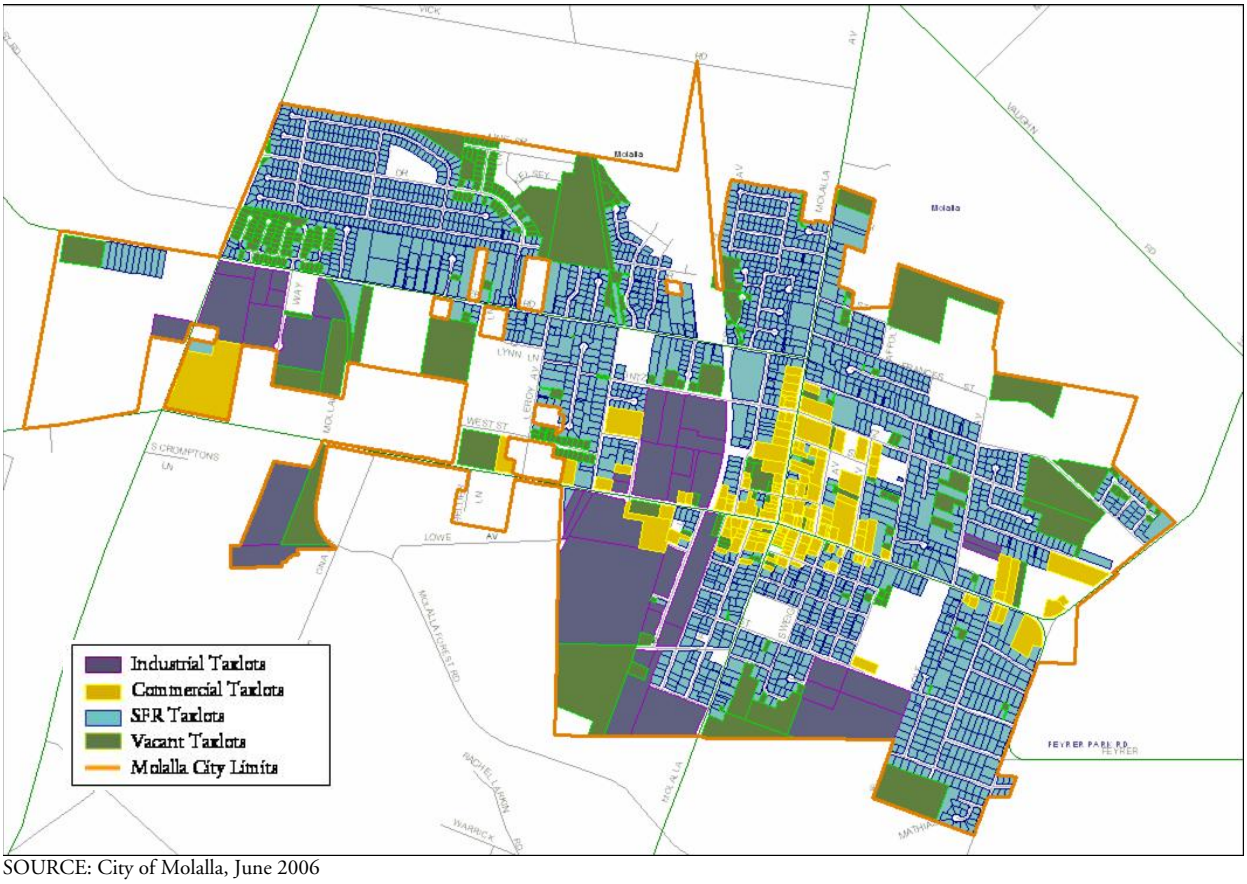
A full copy of the Architectural Survey Memo is available in the Appendix.

Market Analysis for Downtown Molalla

This section outlines community needs as well as current and anticipated market conditions impacting viable development forms in the study area. The market for a range of prospective product types will substantively impact the Molalla Downtown Development and Streetscape planning efforts. In 2006 the City of Molalla completed a series of evaluations of its economic profile, business needs and the downtown retail market. This memorandum incorporates information from the following studies, supplemented with updated and additional market data:

- *Molalla Economic Profile,* May 4, 2005, E.D. Hovee & Company, LLC
- *Molalla Business Survey Review,* January 11, 2006, E.D. Hovee & Company, LLC
- *Downtown Retail Market Analysis,* August 2006, Marketek, Inc.

MAP OF BUILDABLE LANDS INVENTORY



SOURCE: City of Molalla, June 2006

Figure 4.1: Buildable Lands Inventory

The City of Molalla has a limited quantity of vacant land within the downtown study area. The area has largely been built-out, and new development opportunities will be primarily development/redevelopment on individual small or large sites, or on assembled parcels. Sites of limited scale present a number of development challenges, as do redevelopment sites.

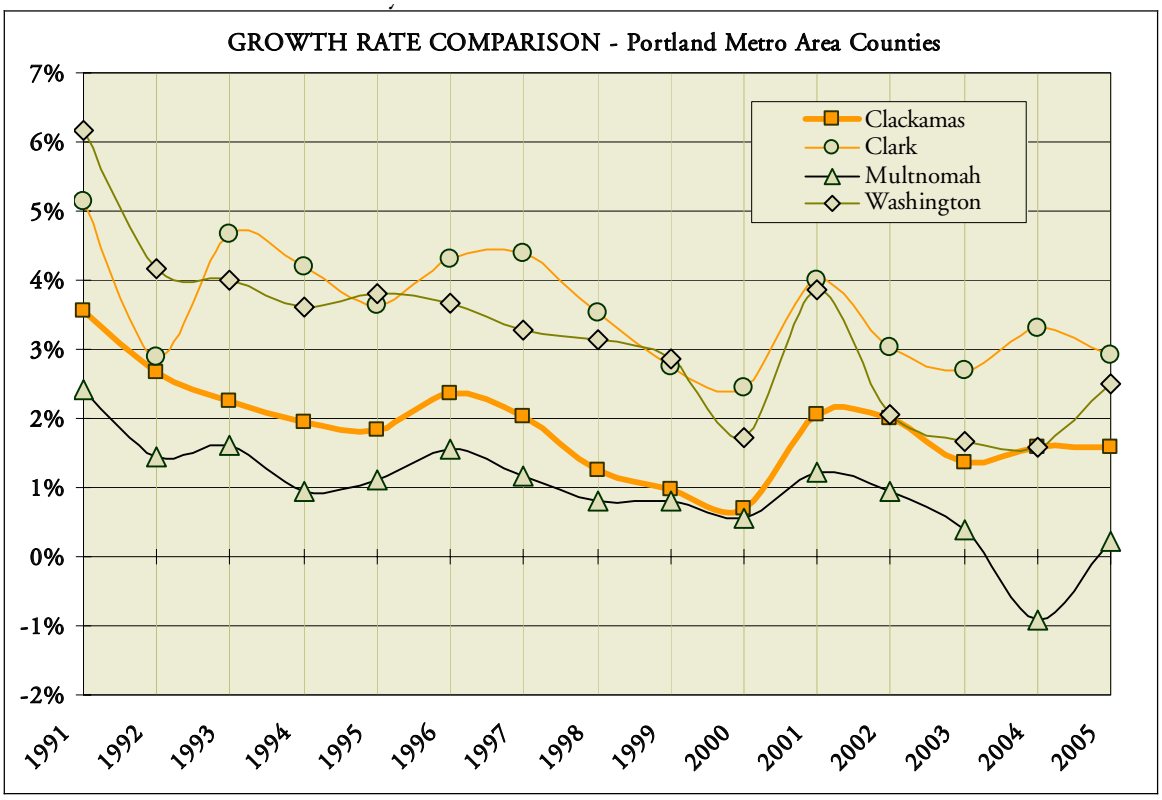


Figure 4.2: Growth Rate Comparison (Continued population growth allowed for a continued strong level of residential construction activity).

The metropolitan area economy has been enjoying a period of substantial employment growth. Trends in the commercial and industrial markets also indicate better than reported rates of growth or greater optimism for future space needs. Population growth held steady during the recent economic decline in the Portland metropolitan area, and the recent employment growth indicates that the level of growth can be sustained.

Population growth in the Portland metropolitan area has been shifting away from Multnomah County and towards the more suburban areas. Clackamas County has lagged behind both Washington and Clark Counties in terms of population growth rate over the last decade, but increasing land scarcity in Washington County is expected to drive a greater share of metropolitan area demand to Clackamas County over the next decade. Rising housing costs within the Portland metropolitan area Urban Growth Boundary (UGB) have led to an increasing number of households employed in the area to seek housing in more rural communities and small cities on the periphery, such as Molalla.

The City of Molalla's population base grew at an average annual rate of 4.5% from 1990 through 2000, more than twice the rate of growth for Clackamas County. Following relatively slow growth from 2000 through 2003, the City has seen growth accelerate in 2004 and 2005. While Happy Valley has been the County's fastest growing community over the last several years, land constraints are expected to shift an increasing share of demand to communities such as Molalla outside of the Metro UGB. Families with children have accounted for much of the growth in the City. The growth in families is likely attributable to the area's relative affordability as well as a quality school system.

The City of Molalla's population projections anticipate an average annual rate of growth of 2.9% through 2025, increasing the population to just under 11,000 and number of household to 3,830. Based on recent trends, this forecast appears to be well within reasonable expectations. The City's share of Clackamas County's overall population would shift from 1.7% in 2000 to 3.1% in 2025. The retail market is currently sound in the Molalla area, with significant levels of leakage to the Portland metropolitan area. Retail is an area of obvious opportunity in the Molalla area, as population levels rise and associated levels of local buying power increase. The key to capturing a greater share of expenditures locally is to increase the desirability of the retail mix in the area.

The Marketek report outlines a number of sound recommendations to strengthen the downtown retail mix. The key variable for generating development/redevelopment activity will be the degree to which marketable space can be matched with viable tenants. The benefits of a more vital commercial core would accrue to local property owners and businesses, as well as residents who would enjoy more attractive and convenient retail opportunities.

Office space demand within the City of Molalla will respond to community needs, supported by the area's population base and industrial activity. Likely tenant types would include medical offices, insurance brokerages, realty companies, title companies, and other professional office users. These types of office tenants will often utilize ground floor commercial space, as they have a significant amount of customer traffic, but could be located in more traditional office offices.

A competitive strength for Molalla is its inventory of industrial land, which includes a number of relatively large shovel-ready sites. While the Molalla area's distance from the primary regional transportation network makes it a relatively weak site for warehouse/distribution uses, the local workforce and location between the Portland metropolitan area and Salem are seen as potentially attractive to some users. The availability of land and local labor force will likely be attractive to small manufacturers and end-user firms, with the relative isolation discouraging speculative activity.

Plans, Services, and Programmed Improvements

This section identifies plans and policies that are relevant to the Molalla Downtown Development & OR 211 Streetscape Plan (the Downtown/OR 211 Plan). It outlines planned infrastructure improvements and discusses opportunities and constraints on the provision of infrastructure for future growth in the Downtown Study Area.

State of Oregon

State Goals

The foundation of Oregon's land use planning program is a set of 19 statewide planning goals, which express the state's policies on land use and related topics. Local governments, special districts and state agencies' plans must all be consistent with the goals.

The following goals are most applicable in guiding the Downtown/OR 211 Plan:

- Goal 1: Citizen Involvement
- Goal 2: Land Use Planning
- Goal 5: Natural Resources, Scenic and Historic Areas and Open Spaces
- Goal 6: Air, Water and Land Resources Quality
- Goal 8: Recreational Needs
- Goal 9: Economic Development
- Goal 10: Housing
- Goal 11: Public Facilities and Services
- Goal 12: Transportation
- Goal 14: Urbanization

Oregon Highway Plan

The 1999 Oregon Highway Plan (OHP) describes the current conditions of the state highway system and establishes policies and strategies for future improvements and highway system standards. The plan emphasizes:

- Efficient management of the system to increase safety, preserve the system and extend its capacity;
- Increased partnerships, particularly with regional and local governments;
- Links between land use and transportation;
- Access management;
- Links with other transportation modes; and
- Environmental and scenic resources.

STAs are designated on certain state highways to recognize that local mobility and access needs in those areas are at least as important as the highway's role to move through traffic. OR 211 is designated by the Oregon Highway Plan as a District Highway and is not a designated Freight Route or Expressway. Because of these factors, and because the section of the highway through downtown Molalla looks like a traditional "Main Street," the highway meets the initial screening criteria for an STA.

The OHP also allows for the designation of a special transportation area (STA). Special Transportation Area (STA) designations allow ODOT's access standards for the highway to be modified, potentially allowing more frequent access and/or public street connections than would otherwise be permitted. The STA designation would also raise the maximum volume-to-capacity (v/c) ratio permitted at intersections along OR 211, allowing a greater level of congestion before improvements would be required. Other features of an STA include narrower travel lanes, curb extensions, and other roadway design features that support downtown development and activity.

City of Molalla

Existing Comprehensive Plan

Comprehensive Plan elements relevant to the Downtown/OR 211 Plan follow.

a) Commerce: The City's goal is to "develop a commercial district of a size and with a range of services related to the needs of the population and market area."

b) Water: The City's goal is to maintain an adequate water quality, supply and distribution system to meet the needs of the citizens of Molalla.

c) Transportation: The city aims to minimize the vehicular impact upon the City of Molalla and to integrate Molalla with the various transportation planning and development systems within the state.

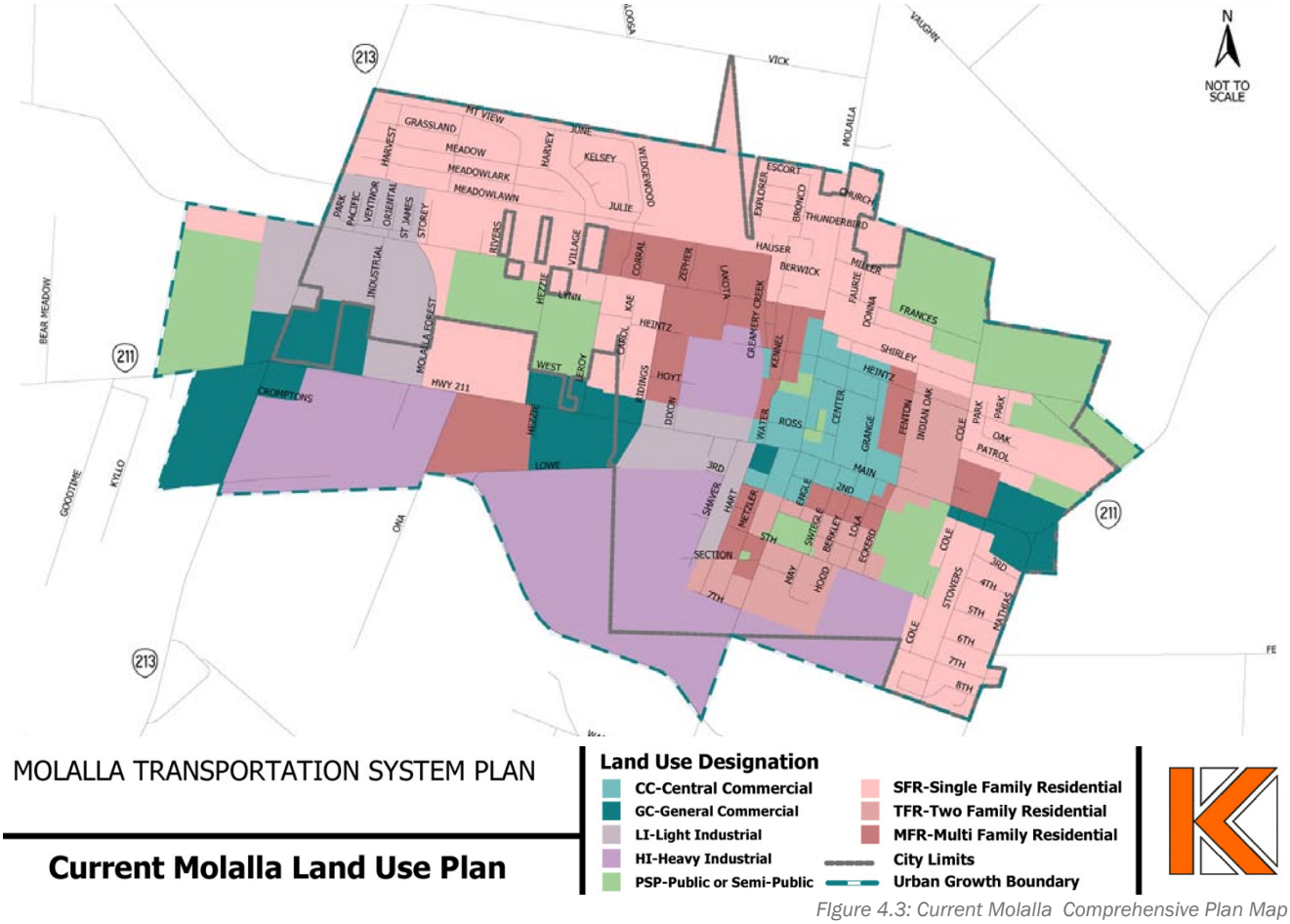


Figure 4.3: Current Molalla Comprehensive Plan Map

Existing Zoning Code

The City of Molalla Zoning Ordinance implements the Comprehensive Plan policies within the City. The map is the same as the Comprehensive Plan and identifies zoning designations for parcels within the city, while the ordinance provides standards and criteria for land use and development. The following zone designations are found in the study area:

Zone	Definition/Allowed Uses
R-2	Detached, single-family dwelling or duplexes
R-3	Duplexes and multi-family dwellings
Central Commercial (C-1)	Allows for a broad range of uses in keeping with Molalla's historic commercial area and central business districts. Development in the C-1 district is intended to be characterized by high building coverage and close placement of buildings. Development is also to be pedestrian-oriented with a strong emphasis on a pleasant streetscape.
General Commercial (C-2)	Allows a full range of retail and service businesses for a local or regional market. The district should be characterized by attractive development, an open and pleasant street appearance, and compatibility with adjacent residential areas. Development is expected to be generally auto-oriented, and intended to be aesthetically pleasing for motorists, pedestrians, and the businesses themselves.
Light Industrial (M-1)	Designated for non-polluting industries, which are generally compatible with residential and commercial activities.
Public/Semi-Public	The purpose and function of this district is for the siting of public or semi-public facilities. This zone is found on large parcels scattered throughout the city.

Table 4.1: Downtown Zoning

City of Molalla Transportation System Plan

The City of Molalla's Transportation System Plan (TSP) serves as the transportation element of the local comprehensive plan.

City of Molalla Roadway System Plan

Molalla's roadway system plan provides guidance on how to best facilitate roadway travel over the planning period. The functional classification plan for the City of Molalla includes four functional categories: arterials, collectors, neighborhood streets, and local streets.

a) Street Design Standards: Street design standards are used to establish the intended degree of access and circulation of each roadway class. Specific design standards are included in the city TSP. The TSP also sets forth general guidelines for the improvement of arterial/collector intersections.

Access Management Strategies

Access management is a tool used to preserve desired roadway access and circulation standards as development occurs. Spacing standards for access points are established based on a roadway's classification, and may be reduced for STAs. ODOT has the authority to regulate access on Highway 211 and Highway 213, while the City of Molalla has authority over other roadways within its boundaries.

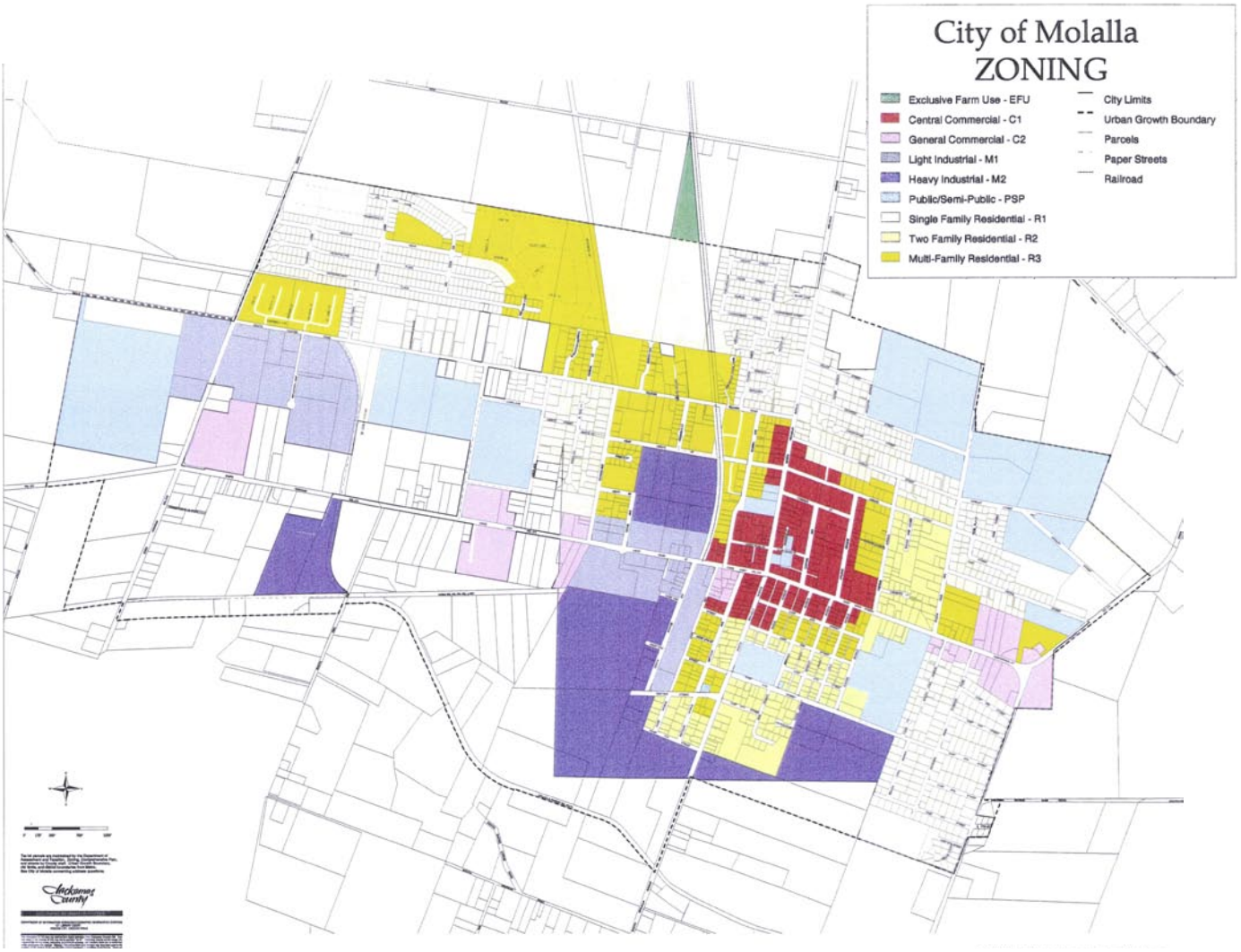


Figure 4.4: Current Molalla Zoning Map

Pedestrian and Bicycle Plan
The pedestrian and bicycle plans included in the Molalla TSP are primarily intended to provide connections between major activity centers (e.g., schools). The TSP also recommends specific enhancements to the pedestrian and bicycle environment. See also list of opportunities and constraints.

Roadway Improvement Plan
The roadway improvement plan identifies specific improvements needed to improve safety and accommodate future growth. Brief descriptions of these projects that fall within the study area are listed in the Appendix. More detail on these projects can be found in the Existing and Planned Transportation System for Molalla Downtown Development and OR 211 Streetscape section of this document.

Capital Improvements Plan
The city's Capital Improvement Plan (CIP) lists projects within the study area. The following types of projects are as yet uncompleted: four Wastewater Collection; two Transportation Improvements; and two Facilities projects. (The CIP projects are identified in Technical Memorandum #2 (included in the Appendix to this document).)

Clackamas County Transportation System Plan
Clackamas County owns sections of five roads in Molalla: Molalla Avenue, Feyrer Park Road, Toliver Road, Leroy Avenue and Mathias Avenue.

Roadways
Clackamas County's Roadway System Plan provides guidance on how to best facilitate roadway travel over the planning period. Sections relevant to the Study Area include: Efficiency and Finance; Roadway Improvements (listed in Appendix); Functional Classifications; Access Requirements; Improvements to Serve Development; Building Roads.

The functional classification of the county roads in Molalla are as follows: Molalla Avenue and Feyrer Park Road are minor arterials, while Toliver Road, Leroy Avenue and Mathias Avenue are designated as collectors. Access standards vary depending on the functional classification of a particular roadway. Improvements to serve development are governed by specific policies, e.g. requiring dedication of right-of-way, on-site or off-site improvements as appropriate for each development (among others).

Parking
The goal of Clackamas County's parking standards is to insure that parking is provided in a manner that is convenient to users of all transportation modes.

Transit
The TSP's map v-6b (in Appendix) Molalla's transit system currently has a County designated "local transit district route" that runs along 213 and turns onto 211 (to Oregon City). There are also local bus routes that run along Molalla Avenue, Mathias, Toliver and cross Feyrer Park Road. Transit systems running on these roads are under County jurisdiction for short segments and therefore must take County transit policies into account. See Appendix for relevant county policies that may affect the Molalla Downtown and OR 211 study areas.

Pedestrian and Bicycle Facilities
Clackamas County's vision is to create an environment which encourages people to bicycle and walk on networked systems that facilitate and promote the enjoyment of bicycling and walking as safe and convenient transportation modes. Policies regarding pedestrian facilities pertain to county-owned roads in Molalla. Map v-7b (in Appendix) in the County's TSP, which shows existing and planned bikeways in rural areas, indicates proposed bikeways along OR

211, Molalla Avenue, Feyrer Park Road, Mathias and Toliver Road, as well as proposed multi-use trails along both Creamery Creek and Bear Creek. See Appendix for pedestrian and bicycle policies that are relevant to the Downtown/ OR 211 Streetscape Plan.

Freight
Freight movement is an important part of the County's economy, which has a strong job base in the sectors of transportation and wholesale trade. Modes impacted by the County TSP include rail and trucks. Policies that deal with these modes are included in the Appendix.

Buildable Lands Inventory
In 2006 the City conducted a buildable lands inventory to identify acreage available for development in each zone. Buildable lands are vacant and do not have any identified environmental constraints that would prohibit development. One-quarter of this acreage is not considered "buildable" because it would be required for public facilities. Redevelopable land is included in the buildable lands inventory.

The following table identifies the quantity of buildable land in the City of Molalla under each existing zoning designation.

Zone	Total Acreage	Developed	Undeveloped	Wetlands	Developed with Other Uses
R-1					
Total	354	225	93	22	14
R-2					
Total	22	14	6	1	1
R-3					
Total	151	90	39	12	10
C-1					
Total	32	20	2	0	10
C-2					
Total	58	18	23	10	7
M-1					
Total	104	41	30	26	7
M-2					
Total	340	71	139	114	16
PSP					
Total	189	188	0	1	0
Roadways	165				
Totals	**1415**	**667**	**332**	**186**	**65**

These numbers will be revised by the time the City finishes the updates to the Comprehensive Plan (currently in progress). The City plans to update the buildable lands on a yearly basis.

Table 4.2: Buildable Lands Inventory

Local Wetlands Inventory

A 2001 wetlands inventory identified seven wetlands within the study area.

Opportunities and Constraints

Transportation-related opportunities and constraints identified in a detailed analysis of Molalla's transportation system are listed according to mode in Technical Memorandum #3 in the Appendix.

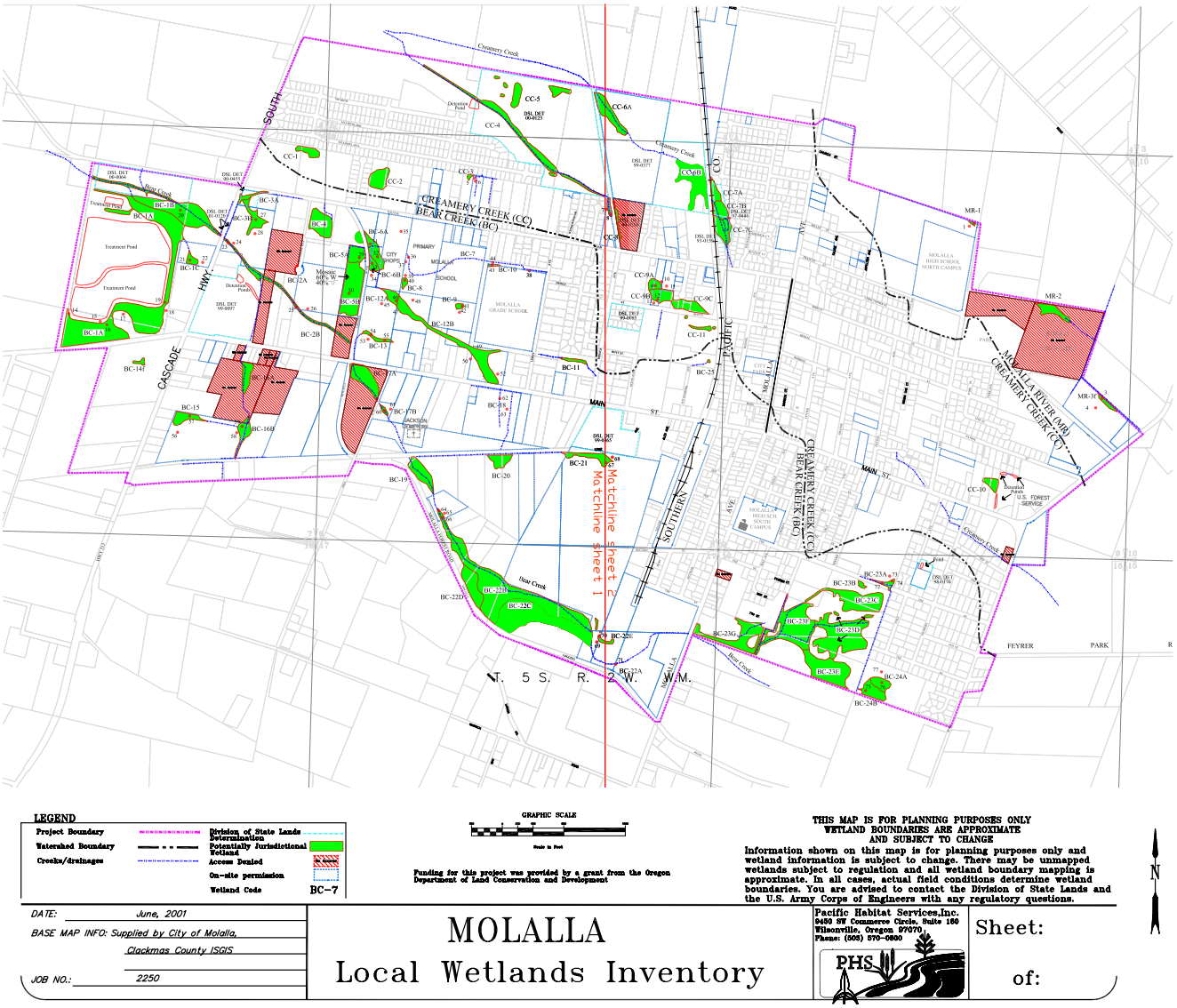


Figure 4.5: Local Wetlands Inventory

Existing and Planned Transportation System for Molalla Downtown

Development and OR 211 Streetscape

This section summarizes the existing condition of the transportation system within downtown Molalla and along Highway 211 (Main Street), focusing on the auto, public transit, pedestrian, and bicycle modes. The section describes changes that have occurred since the City's Transportation System Plan was adopted in 2001, and lists the system improvements identified in the TSP that have not yet been constructed.

Auto

Roadway Functional Classifications

A roadway's functional classification indicates its level of importance and role within the City's street network and also sets its design standards. *Arterial* streets carry the highest traffic volumes, including most of the traffic bound to, from, or through Molalla. Driveway access to arterial streets may be restricted. *Collector* streets are through streets that carry medium traffic volumes, and also provide a land access function. Molalla designates two levels of collector streets, major and minor. Finally, *local* streets are low-speed, low-volume streets that primarily serve a land access function. Molalla designates two levels of local street, neighborhood street and local. Neighborhood streets provide street connectivity within neighborhoods and carry somewhat higher traffic volumes than other local streets.

The following table gives the functional class of the roadways within the study area:

Classification	Street
Arterial	Molalla Avenue Molalla Forest Road (future) OR 211 Mathias Road Main Street (functions as an arterial until bypass is constructed)
Major Collector	Toliver Road Shirley Street 5th Street Leroy Avenue
Minor Collector	North Cole Street Riding Avenue
Neighborhood Streets	Stowers Lane Lola Avenue Center Avenue Heintz Street Kennel Street Lowe Road Two unnamed future roads within the former mill site
Local Streets	All other roadways not listed above are local streets.

Table 4.3: Roadway Classifications

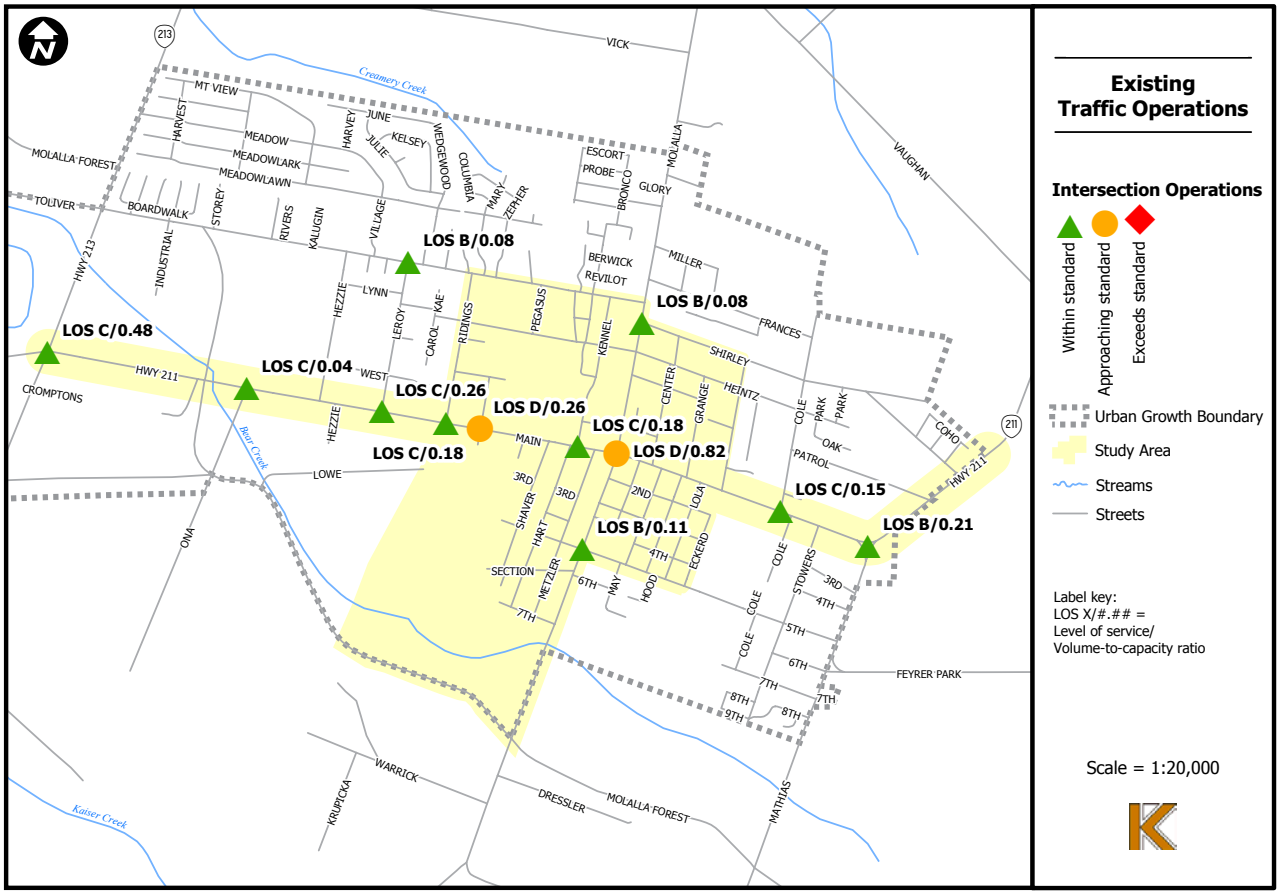
Traffic Operations

Weekday p.m. peak period traffic counts were conducted at twelve key intersections within the study area. See Appendix for the study intersections, along with the month they were counted.

Two methods are used to establish traffic operations standards. The City of Molalla uses the concept of level of service (LOS), which is based on the average vehicular delay experienced at an intersection (for traffic signals and all-way stops), or the average vehicular delay experienced by the worst movement at all other types of intersections. Molalla's standard is LOS D, which represents a maximum of 55 seconds of average intersection delay at traffic signals and all-way stops, and a maximum of 35 seconds of average delay for the worst movement at other intersections.

ODOT uses the concept of volume-to-capacity (v/c) ratio, which expresses the percentage of a roadway or intersection's capacity that is in use. The Oregon Highway Plan's standard for Highways 211 and 213 is a maximum v/c ratio of 0.90 in areas with a posted speed of 35 mph or less, meaning that no more than 90% of a roadway or intersection's capacity should be used up. In areas with a posted speed over 35 mph, the standard is a v/c ratio of 0.85. At state highway intersections, the more restrictive of ODOT's or Molalla's standard applies when determining whether an intersection is operating within its standard.

Figure 2 shows existing traffic operations at the study intersections, along with each intersection's LOS grade (from "A"/best to "F"/worst) and v/c ratio. The figure categorizes the intersections as *within standard* (LOS A, B, or C, or a v/c ratio 0.10 or more below the ODOT standard on state highways), *approaching standard* (LOS D or a v/c ratio within 0.00-0.09 of the OHP standard on state highways), and *exceeds standard* (LOS E or F, or a v/c ratio greater than the OHP standard on state highways).



Molalla Downtown Development and OR 211 Streetscape Plan
Technical Memorandum #3: Existing and Planned Transportation System

October 2006

Figure 4.6: Existing Traffic Operations

At present, no intersections exceed their traffic operations standard. However, the Main Street/Molalla Avenue intersection currently operates at 82% of capacity during the weekday p.m. peak hour, which is within 8 percentage points of its standard. The Main Street/Dixon Avenue intersection operates at LOS D, with 26 and 27 seconds of average delay during the weekday p.m. peak hour on the northbound and southbound approaches, respectively. If downtown Molalla were to be designated a Special Transportation Area (STA), the ODOT v/c standard in the downtown area would increase from 0.90 to 0.95.

Crashes

Crash records for the study area covering the years 2001-2005 (the most recent available) were obtained from ODOT. The data identify reported crashes that resulted in a fatality, injury, property damage exceeding a threshold amount ($1,000 through 2003, currently $1,500), or (since 2004) a vehicle being towed from the crash scene due to damage. See table 1 for a summary of this information for the study intersections.

Study Area Reported Crashes, 2001-2005

Intersection	# Crashes	Collision Type					Severity	
		Sideswipe	Rear-End	Turning	Angle	Other	PDO	Injury
Highway 211/ Highway 213	11		6	3	2		7	4
Highway 211/ Ona Way	3		1		2		1	2
Highway 211/ Leroy Ave	2		1		1		0	2
Highway 211/ Ridings Ave	0							
Highway 211/ Dixon Ave	1				1			
Highway 211/ Kennel St	3		2	1			2	1 (Bike)
Highway 211/ Molalla Ave	6		3	2		1	4	2
Highway 211/ N Cole St	2		1	1			2	
Highway 211/ Mathias Road	4			2	1	1	1	3
Molalla Ave/ Shirley St	0							
Molalla Ave/ 5th St	0							
Toliver Rd/ Leroy Ave	0							

PDO: property damage only

Table 4.4: Reported Crashes, 2001-2005

Unsurprisingly, the two Highway 211 intersections with highest cross-street volumes, Highway 213 and Molalla Avenue had the highest number of crashes: 11 in five years at Highway 213 and 6 in five years at Molalla Avenue. Most of the reported crashes at the Highway 211/Highway 213 occurred while the intersection was still a four-way stop and most of those have failure to obey the stop sign as a contributing factor. Since the installation of a traffic signal at the intersection, the crash rate appears to have gone down, although a few more years of data will be needed to allow a good comparison of before-and-after conditions.

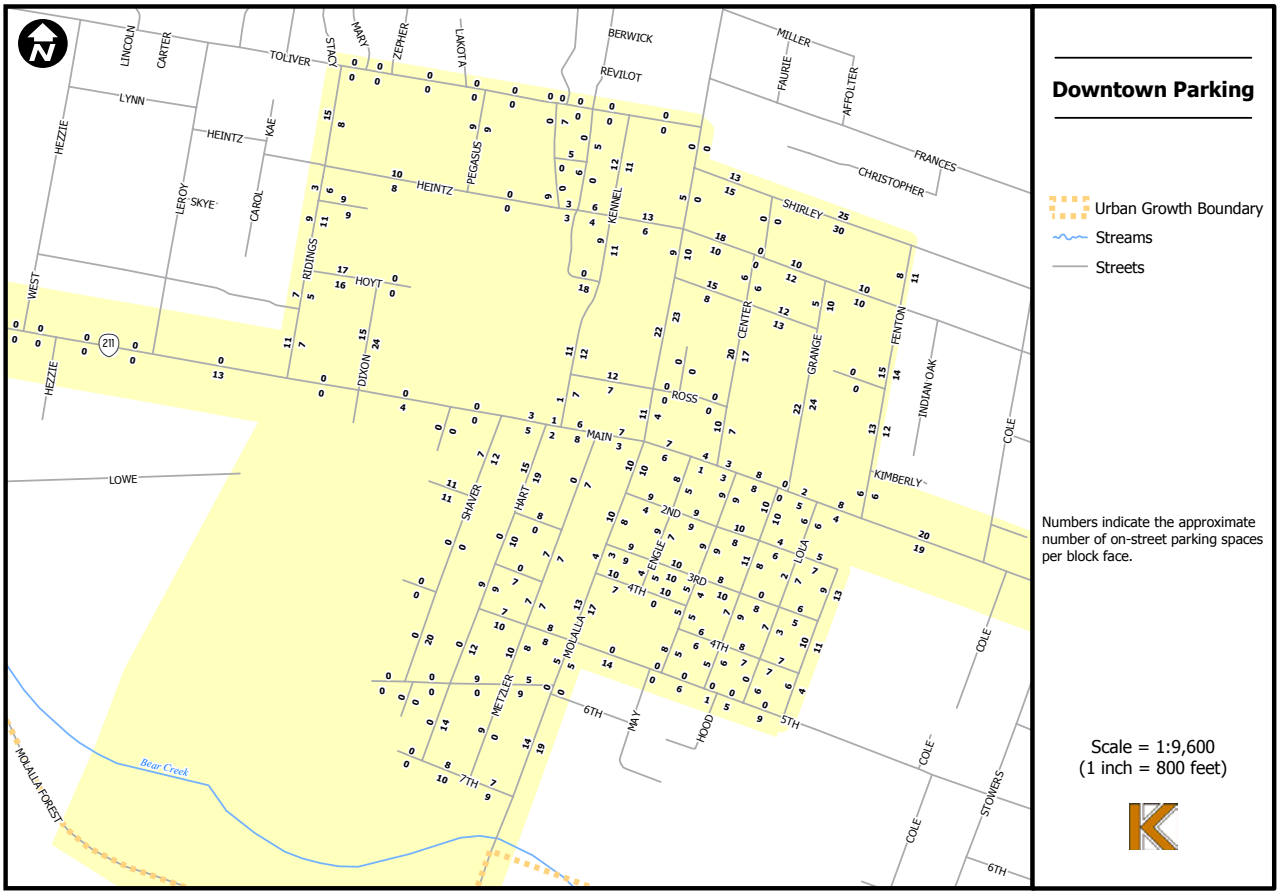


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Figure 4.7: Downtown Parking

On-Street Parking

Figure 3 shows the existing supply of on-street parking spaces within the downtown area, by block face, assuming 22 feet per parking stall (on-street parking stalls are unmarked in Molalla). More information on parking in downtown can be found in the Downtown Parking Strategy section of the Downtown Transportation Element (Chapter 7).

Access Management

As described above, the Oregon Highway Plan seeks to improve the safety and operations of state highways by managing access onto the highway. Providing reasonable amounts of separation between access points reduces the number of times that traffic on the state highway must change speed because of other motorists turning on or off the highway, and reduces the number of locations that motorists turning onto the highway must check for potentially conflicting vehicles.

The access spacing standard that applies to Highway 211 is 500 feet where the posted speed is 40 mph, or 350 feet where the posted speed is 35 mph or less. Table 2 in the Appendix shows the access spacing standard by road segment, the total number of accesses within that segment, and the average access spacing within that segment.

ODOT's access spacing standards are currently unmet throughout the study area and, in many cases, the existing block spacing is shorter than the ODOT standard. This result means that as properties redevelop along Highway 211, ODOT will likely seek to move toward the access standard by closing and/or consolidating accesses where feasible.

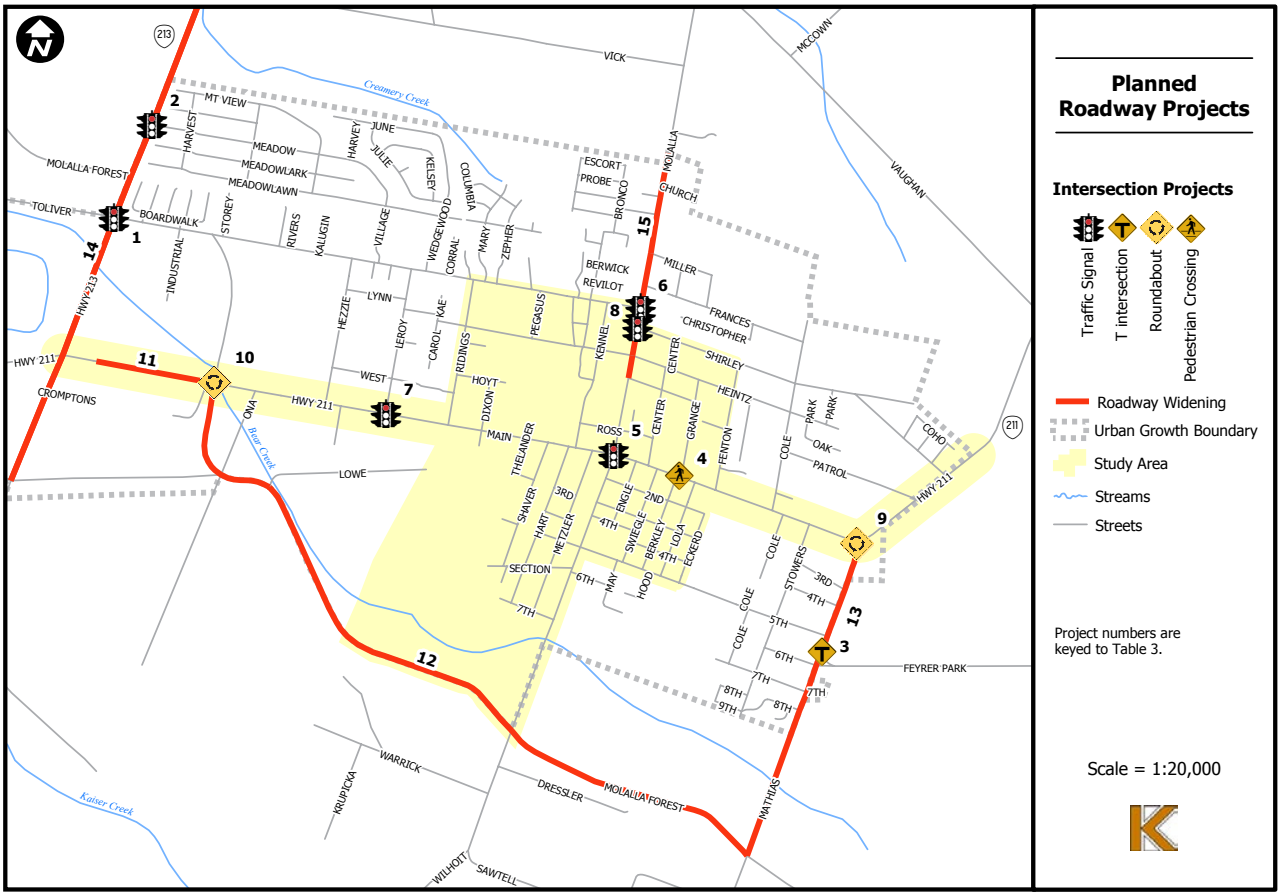

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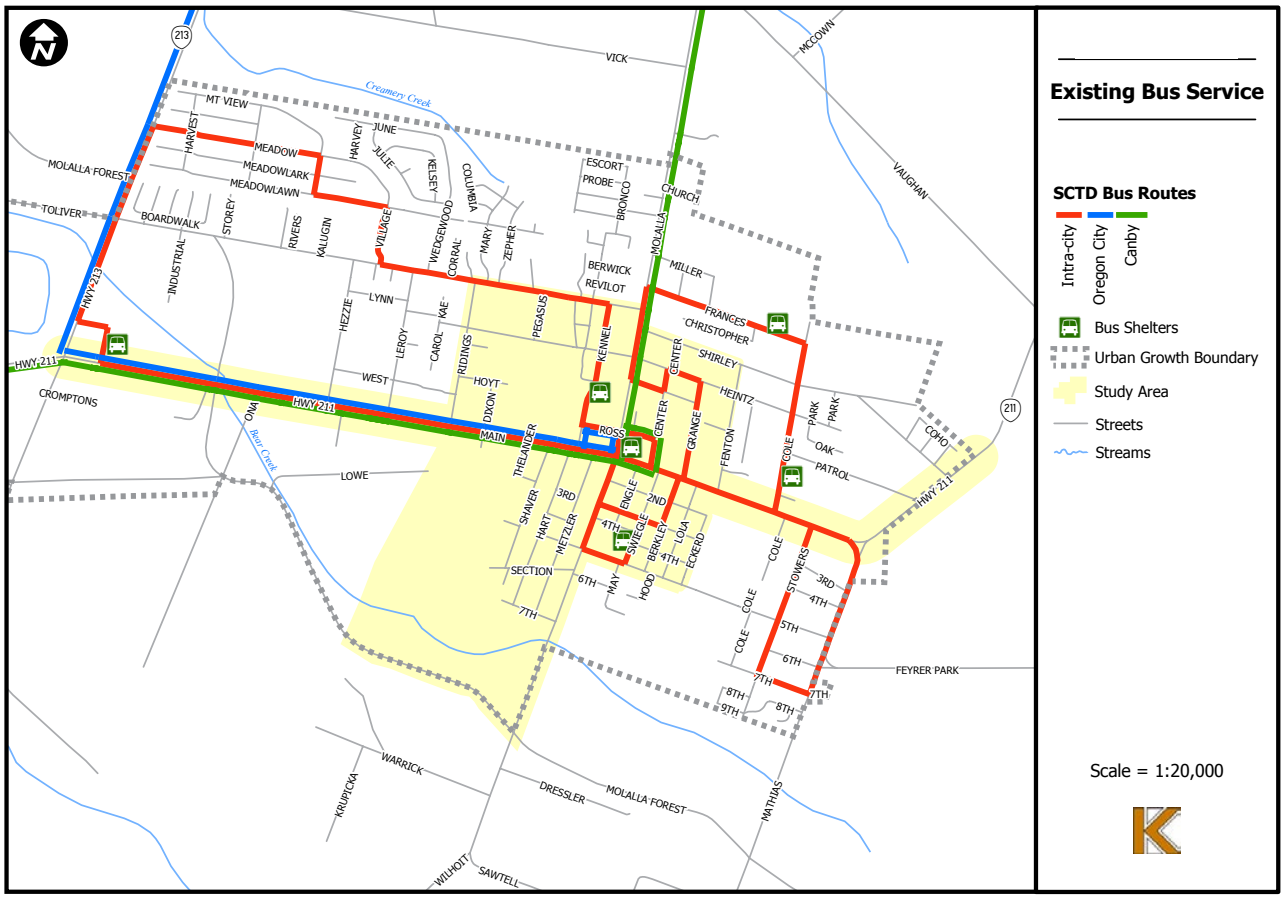
Figure 4.8: Planned Roadway Projects

If an STA is created in downtown Molalla, the access spacing standard would become the existing city block spacing. The minimum spacing standard for private access would be 175 feet, or mid-block when a block is less than 350 feet long.

Planned Roadway Improvements

The 2001 TSP identified a set of roadway improvement projects to address Molalla's transportation needs over the following 20 years, three of which have already been constructed. Table 3, in the Appendix, lists the remaining projects that are planned to be constructed by 2021, assuming available funding matches the assumptions used to develop the TSP list. This list includes a project description, the TSP's estimated project cost (in 2000 dollars), and the TSP's expectation for the project funding source(s). Figure 4 maps the locations of these projects. Note that this plan calls for future work to revisit the need for and/or design of these projects.



Molalla Downtown Development and OR 211 Streetscape Plan
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Figure 4.9: Existing Bus Service

Public Transit

Public transit service in Molalla is provided by the South Clackamas Transportation District (SCTD), which operates three routes: the Intra-City route; the Oregon City route; and the Canby route. Figure 5 shows the streets served by the three routes in the study area, and locations of bus shelters. The Intra-City route has no designated bus stops—buses will stop at any safe location along the route to pick up and drop off passengers.

There is an existing bus stop adjacent to City Hall

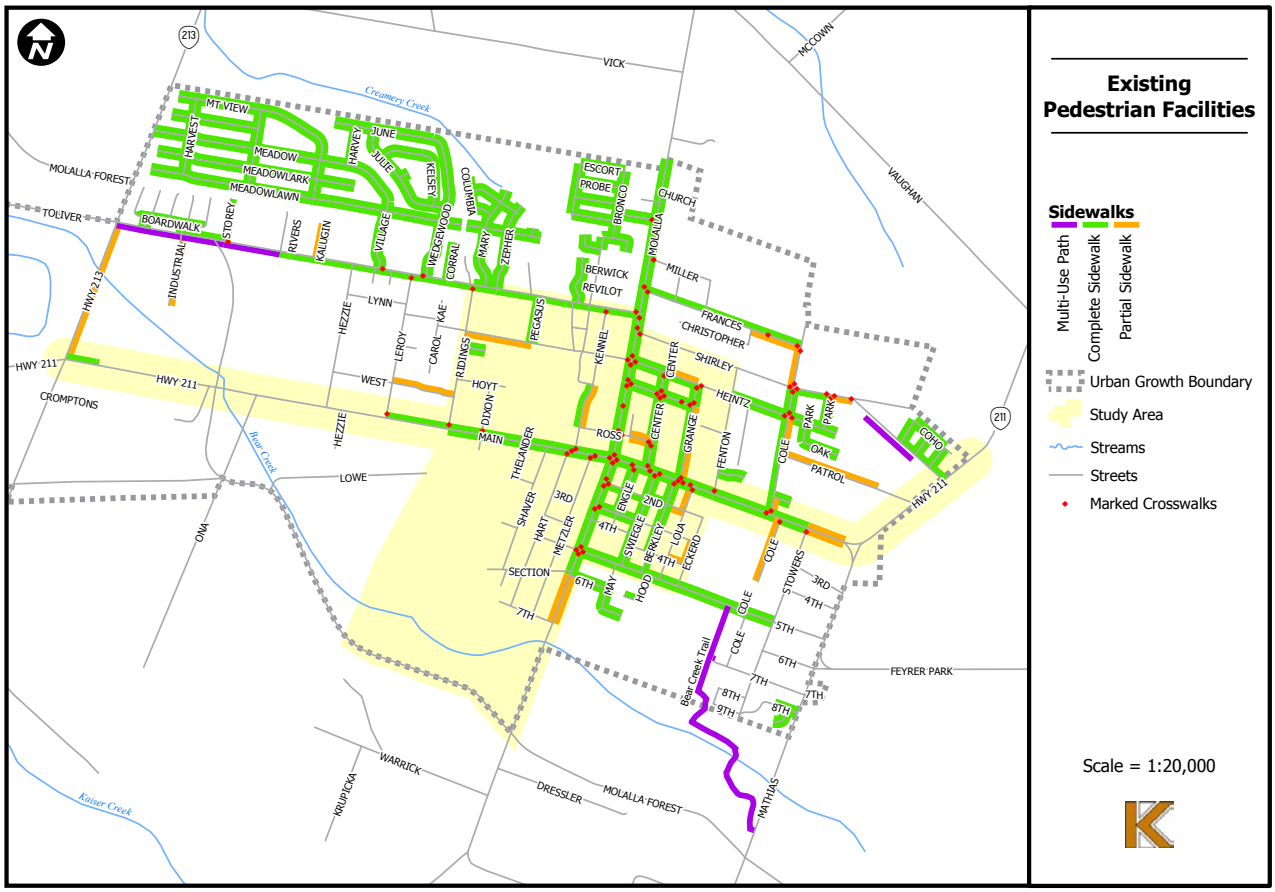

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Figure 4.10: Existing Pedestrian Facilities

Pedestrian

The 2001 TSP noted that, at the time, sidewalks were most likely to be found in new residential subdivisions and in the downtown area. Figure 6 shows the extent of Molalla's sidewalk and path network as of 2001. "Multi-use paths" are off-street facilities shared by pedestrians and bicycles. "Complete sidewalk" indicates block faces with a continuous sidewalk. "Partial sidewalk" indicates block faces with some sections of sidewalk, but not a continuous sidewalk.

The Pedestrian Facilities Assessment conducted for this project details the current pedestrian conditions in the Downtown Study Area. The pedestrian facilities assessment identified existing sidewalks, crosswalks and curb cuts on streets within the Downtown Study Area as of 2006. This inventory provided the basis for the initial and preferred Downtown Streetscape Concepts.

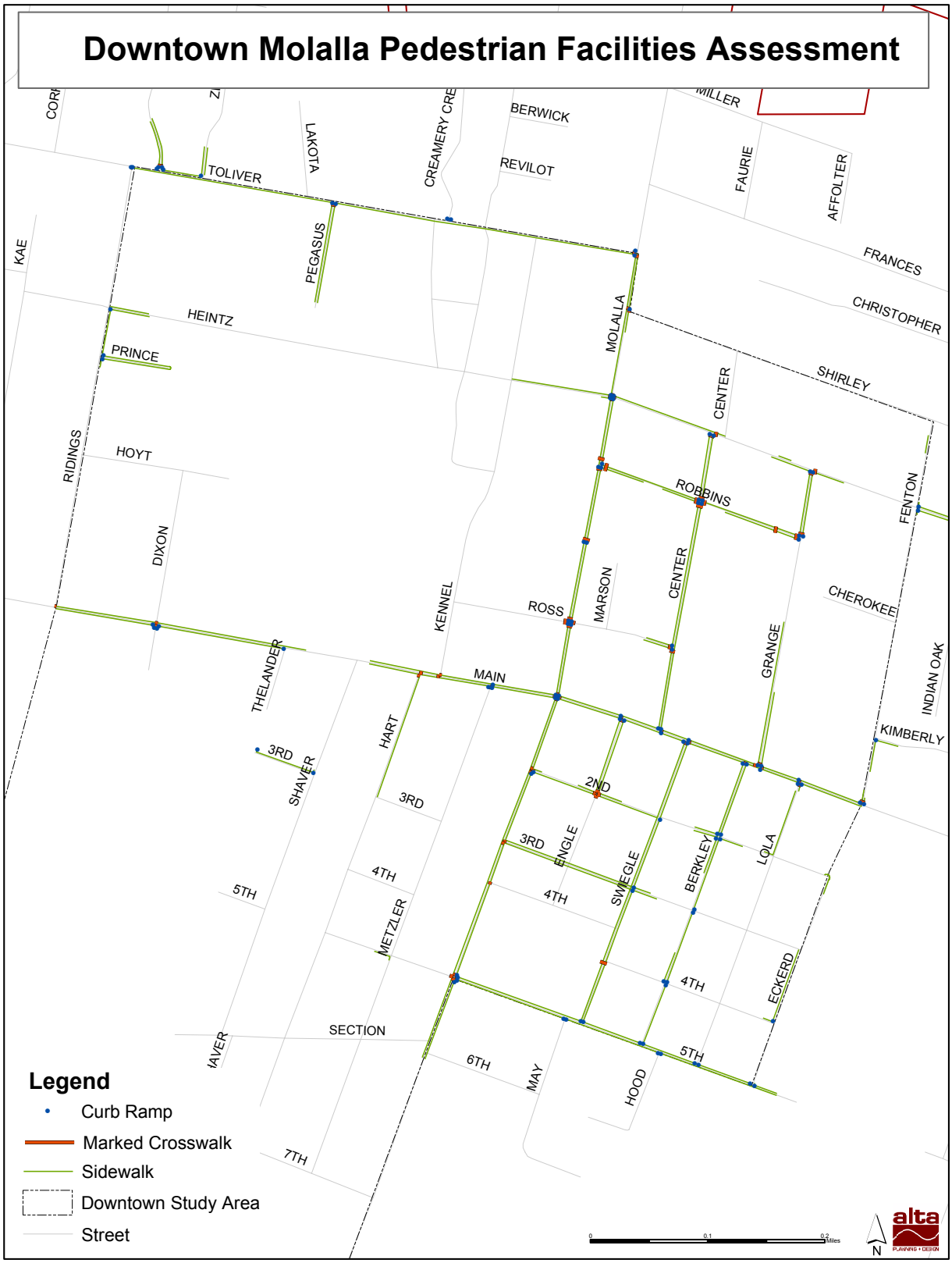


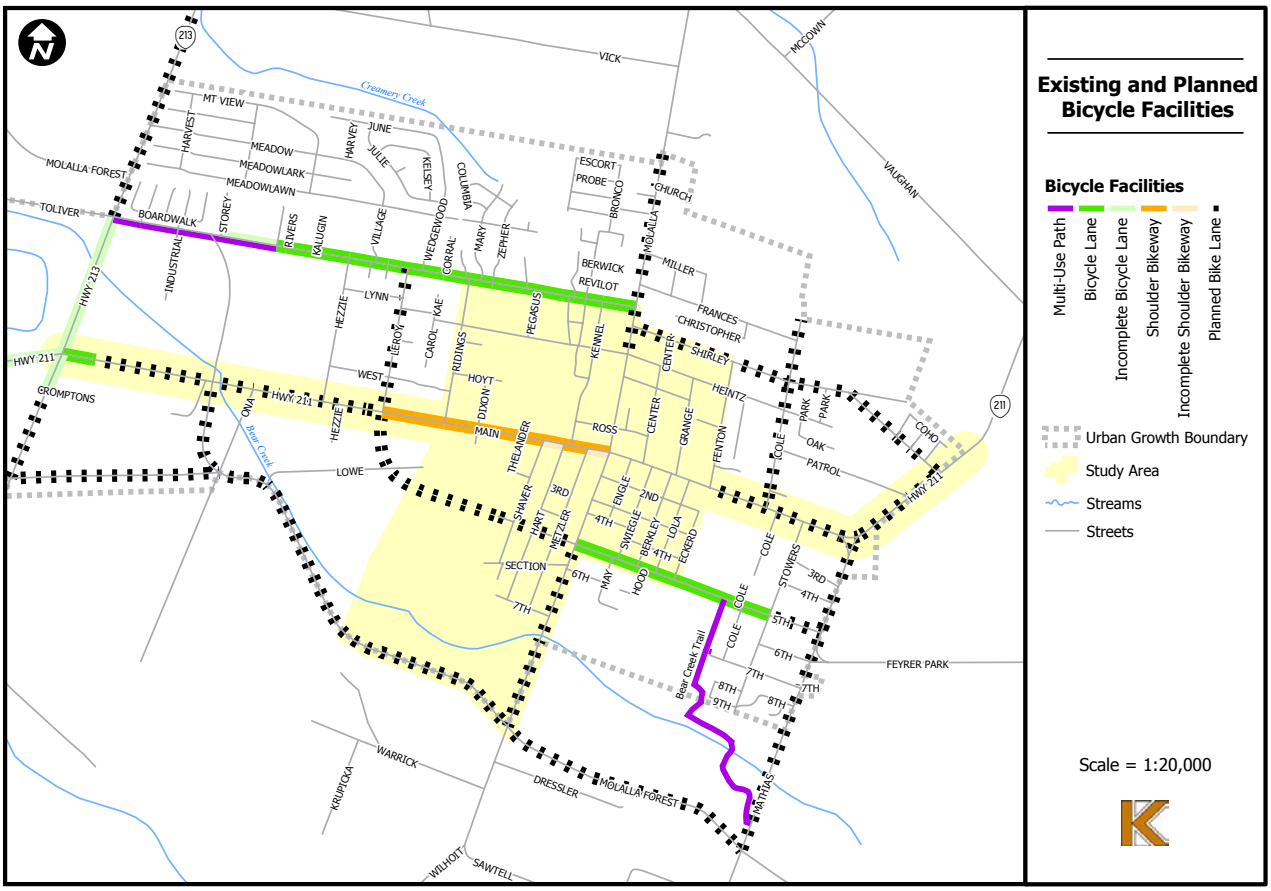
FIgure 4.11: Pedestrian Facilities Assessment

Bicycle

Molalla's bicycle network is still limited in extent, although improvements have occurred since the time the TSP was developed. Toliver Road has new bike lanes or an adjacent multiple-use path for its entire length east of Highway 213, and the recently extended portion of 5th Street east of Molalla Avenue also has bicycle lanes. Main Street between Leroy Avenue and Molalla Avenue has shoulders that function as bicycle lanes. There are short sections of bicycle lanes on the approaches to the Highway 211/Highway 213 intersection which were added when the intersection was widened, and later signalized.

Figure 7 shows the existing and planned bicycle network within the study area. "Multi-use paths" are off-street facilities shared with pedestrians. "Bicycle lane" indicates that a continuous designated bike lane exists for the entire block face. "Incomplete bicycle lane" indicates that some portion of the block face has a bike lane, but not the entire block face. "Shoulder bikeway" indicates that a wide shoulder exists for the entire block face, adequate for bicycle travel. Along portions of Main Street west of Molalla Avenue, the lane striping provides sufficient room for both on-street parking and bicycle travel. "Incomplete shoulder bikeway" indicates that a wide shoulder exists for only a portion of the block face. Finally, "planned bike lane" indicates street segments that are planned to have bicycle lanes in the future, either as part of a road reconstruction project, or through frontage improvements as adjacent properties redevelop.

The rail section of the TSP states that if "the railroad chooses to abandon the line at some point in the future, the City should seek to preserve the right-of-way as a recreational pathway."



Molalla Downtown Development and OR 211 Streetscape Plan
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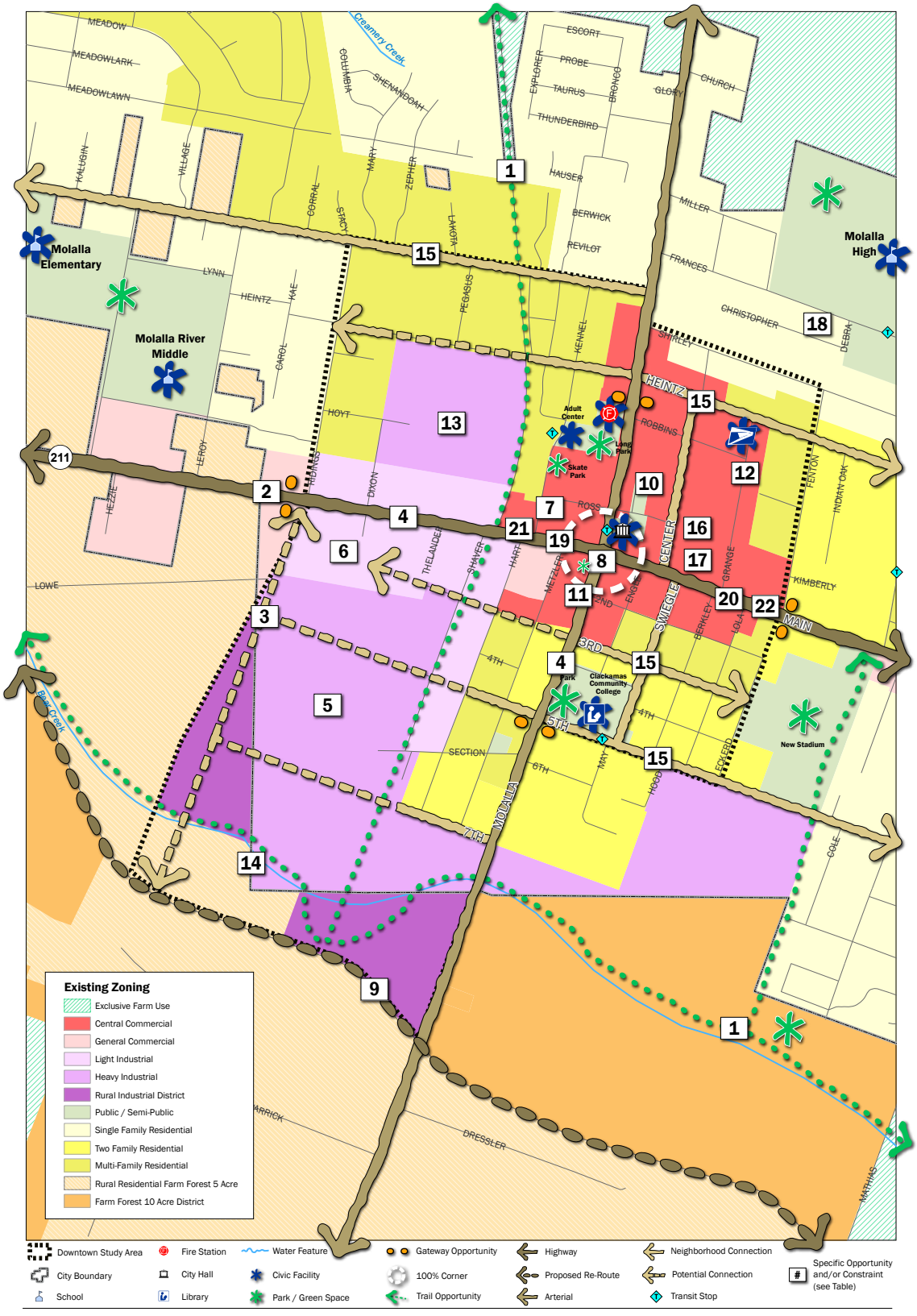
Figure 4.12: Existing and Planned Bicycle Facilities

5. OPPORTUNITIES & CONSTRAINTS

This section summarizes Opportunities and Constraints for Downtown Molalla. In doing so, it draws upon the findings presented in Technical Memoranda #1 (*Market Analysis*), #2 (*Plans, Policies, and Infrastructure*), and #3 (*Transportation*), as well as the Pedestrian Facilities Assessment Memorandum (October 25, 2006). It also incorporates thoughts and comments from Public Meeting #1 (September 21, 2006). The Opportunities and Constraints material is presented here in map form, with a corresponding table that provides additional detail. This map uses as its base the existing zoning and roadway network for Downtown Molalla. The general topics or categories covered are as follows:

- **Urban Design** – including gateway treatments, façade improvements, design standards, and the creation of a pedestrian-friendly downtown;
- **Land Use & Zoning** – opportunities to revisit land use designations and allowable development as they relate to the goals for Downtown;
- **Streetscape** – including ways to calm traffic while promoting pedestrian, bicycle, and transit use; also, opportunities for innovative stormwater management strategies within the right-of-way;
- **Transportation** – with a focus on connectivity, accessibility, safety, and parking;
- **Redevelopment** – opportunity areas for both large-scale and infill redevelopment;
- **Open Space and Trails** – potential for linking green space and providing off-street trail connections to key community assets.

This work, in part, formed the basis for initial downtown land use, transportation, and streetscape concepts for Downtown and OR 211.



Downtown Development & OR 211 Streetscape Plan

Downtown Opportunities & Constraints

FIgure 5.1: Opportunities & Constraints Diagram

	Opportunities	Constraints
1	• Establish a trail system through and around the city to: connect parks, schools, and natural areas; enhance and protect sensitive riparian areas along streams and wetlands; provide an off-street circulation system	• Requires acquiring former railroad alignment before it reverts to adjacent property owners • Requires acquiring easements along stream corridors to develop riparian buffer protection and trail network • May be opposed by adjacent property owners
2	• Use gateways at the four main entrances into Downtown (along OR 211 and Molalla Avenue) to announce and celebrate entry	• Adjacent land uses currently do not communicate a sense of entry • Types of gateway treatments may be limited by roadway designations, limitations imposed by various jurisdictions (City, ODOT), right-of-way constraints, and/or the disposition of adjacent property owners
3	• Extend existing street network (3rd, 5th, 7th, Heinz and Ridings) to improve connectivity as the area develops, and to provide property access alternatives other to OR 211	• May require right-of-way acquisition and/or dedication as properties redevelop
4	• Enhance streetscape on OR 211 and Molalla Avenue, particularly between the gateway elements; City can propose streetscape enhancements which exceed ODOT minimum standards, particularly in the sidewalk area • Search for low-cost landscaping improvements (including planters) • Explore opportunities for access management (including driveway consolidation) along OR 211 to improve pedestrian and vehicular safety	• Existing right-of-way may not support extensive streetscape enhancements, such as street trees and wide sidewalks • ODOT highway design standards and City engineering standards may limit types / locations of 211 streetscape enhancements • Sidewalk and landscape improvements adjacent to private property will require individual (or collective) maintenance agreements • The successful implementation of some access management strategies may require the provision of other property access points (via new local streets) and/or the assemblage or master planning of adjacent properties
5	• Opportunity south of 211 and west of Molalla for significant redevelopment and the incorporation of uses that will support the community's vision for Downtown (as well as support existing Downtown land uses)	• Desired land uses may require changing current zoning and/or development standards
6	• Revisit desired uses along OR 211 in the area adjacent to the Downtown commercial core	• Desired land uses may require changing current zoning and/or development standards
7	• Examine parcels that are vacant, underutilized, and/or contain uses that are incompatible with a pedestrian-friendly Downtown commercial core	• Present landowners may be resistant to change
8	• Emphasize and improve 100% corner - in terms of streetscape, pedestrian quality, and commercial uses	• Some successful existing land uses not compatible with a finer-grained, pedestrian-oriented Downtown
9	• Re-route freight and other heavy truck traffic on a new by-pass road from OR 213 to OR 211 that follows the Molalla Forest Road	• An expensive re-route may preclude executing other transportation and community enhancement projects • Could draw commercial/retail traffic away from Downtown
10	• Develop strategies to consolidate and share off-street parking facilities throughout Downtown (especially in the area to the northeast); consider public parking lots and/or structures	• Will require a "master planning" process and extensive public involvement with property owners • Eventually will require signage and other programs to promote program and direct drivers to appropriate parking locations
11	• Promote storefront improvement program to improve and accentuate the unique quality of existing buildings in the Downtown core; make some buildings more inviting to the general public; improve street-level "transparency"	• Projects are currently limited to $5000 worth of assistance; larger projects may need additional funding
12	• Explore infill and redevelopment opportunities in the northeast area that will augment and strengthen the Downtown core commercial district	• Existing zoning may not facilitate target development types
13	• Redevelopment opportunity area on industrial-zoned lands north of 211	• Desired land uses may require changing current zoning and/or development standards
14	• Align city and urban growth boundary with parcel boundaries; include Molalla Forest Road	• Will require a public adoption process

(See Accompanying Map)

	Opportunities	Constraints
15	• Improve key pedestrian/bicycle circulation and accessibility by repairing/constructing sidewalks, planting street trees, improving key street crossings	• Will require project inclusion in TSP and CIP, and will need dedicated funding • Will require extensive sidewalk retrofitting in NE, NW and SW quadrants • Many existing sidewalks lack curb cuts or have non-compliant curb ramps, and there are many non-ADA-compliant ramp lips and driveway apron slopes, necessitating stand-alone retrofitting • The street network is not connective in much of NE, NW and SW quadrants, which presents a challenge to pedestrians • Some parcels may not redevelop, especially in residential areas, necessitating stand-alone projects by City or ODOT • Limited funding is available for stand-alone pedestrian infill projects; private property owners may be unwilling to bear cost of LID or other private funding mechanism • Residential property owners may object to a more "urban" streetscape of sidewalks and curbs • Stormwater management costs may be significant when converting uncurbed rural-style roadways to curbed urban-style streets
16	• Consider instituting architectural design standards or guidelines to ensure a high-quality pedestrian experience and architectural character	• Will require public involvement process and support from business / property owners to determine appropriate standards or guidelines • Will require devising new administrative and design review procedures • Will require balancing architectural consistency with the allowance for developer / owner creativity
17	• Examine ways and locations to improve on-street parking throughout Downtown	• May require relocating existing mailboxes and street furniture • May require consolidating and/or reconfiguring existing driveways
18	• Generally improve pedestrian and bike access to transit, especially designated transit stops	• Existing right-of-way may not support extensive streetscape enhancements, such as street trees and wide sidewalks
19	• Improve wayfinding and directional signage	• Will require municipal expenditures as well as coordination with ODOT (for Highway 211)
20	• Align north-south cross streets (such as Berkley and Grange) to improve connections and safety	• Will require significant engineering and expenditure
21	• Underground utilities to beautify downtown and potentially reduce power outages, reduce maintenance costs, and increase property values; coordinate undergrounding with roadway and/or streetscape projects	• Requires greater installation cots and results in higher replacement costs • Will require additional "underground conversion" costs to be borne by property owners
22	• Install innovative stormwater management ("green street") features at strategic locations to enhance street appearance and lower cost of both stormwater treatment and new sidewalk/curb installation	• Will require educating public and adjacent property owners about the function and benefits of such features (as well as about their unconventional appearance) • Could require the acquisition of additional right-of-way • The cost of retrofitting existing curbed streets may be prohibitive

(See Accompanying Map)

6. DOWNTOWN LAND USE & TRANSPORTATION CONCEPTS

Three initial Land Use / Transportation Concepts for Downtown Molalla were prepared during the course of the planning study. These three concepts were presented to the Dowtown Task Force (DOTF), the Technical Advisory Committee (TAC), the Project Management Team (PMT), and the general public (at Public Meeting #2 on 12/14/06). Following these reviews, it was determined that Option #2 ("Downtown Revival"), with some modifications, should be explored further as a Preferred Concept. This Preferred Concept was refined with additional input from the DOTF, TAC, PMT, and the general public (at Public Meeting #3 on 03/01/07).

The three initial Downtown Land Use / Transportation concepts are summarized here, followed by a presentation of the Preferred Concept. Each of the initial concepts drew upon the findings of previous Technical Memoranda: #1 (*Market Analysis*), #2 (*Plans, Policies, and Infrastructure*), #3 (*Transportation*), and #4 (*Opportunities and Constraints*), as well as from the Pedestrian Facilities Assessment and from previous DOTF, Public, TAC, and PMT Meetings. In preparing these land use / transportation concepts, the following topic areas were given special consideration, consistent with the project's Vision and Guiding Principles:

- **Urban Design** – including gateway treatments, the potential for façade improvements and/or design standards, and the creation of a pedestrian-friendly downtown;
- **Land Use & Zoning** – including land use designations and development standards;
- **Redevelopment** – opportunity areas for both large-scale and infill redevelopment;
- **Transportation** – with a focus on connectivity, accessibility, safety, and parking;
- **Open Space and Trails** – potential for linking green spaces and providing off-street trail connections to key community destinations.

Land Use Typologies:

Each of the initial land use / transportation concepts drew from a common collection of land use typologies that reflect the best of the Downtown's current building and open space forms, and respond to the Plan's Vision and Guiding Principles. These typologies, then, were chosen to foster a thriving, pedestrian-oriented, and clearly recognizable Downtown, ensure the availability of accessible parking, improve connections to community resources, support the community's recreational aspirations, and allow for sensible redevelopment and infill that will further strengthen the community's core. The conceptual land uses / typologies were divided into seven categories - two commercial, three residential, one open space, and one employment. They are described, with example images, below and on the following page.

Central Business District

Mixed use downtown retail, office, residential, and commercial uses with strong emphasis on pedestrian orientation and architectural character. No minimum lot size.

General Commercial

General retail, office, and commercial. Larger lots (10,000 sf+) with strong pedestrian orientation. Parking behind buildings or to the side.

High Density Residential

8 - 17 dwelling units/acre

Townhomes, rowhouses, condominiums, apartments, duplexes, triplexes, and small lot single-family homes. Limited commercial uses.





Medium Density Residential

8 - 10 dwelling units/acre

Predominantly single-family residential on lots ranging from 4400 sf to 5400 sf.




Low Density Residential

6 - 8 dwelling units/acre

Single-family residential on lots ranging from 5400 sf to 7300 sf.





Parks and Open Space

Areas for public use, recreational use, and conservation. Parks or green spaces can be linear.





Employment

Areas for light (non-nuisance) industrial, distribution, office, medical offices, hospitals, and limited commercial (i.e., feed and tack store).



Transportation Typologies

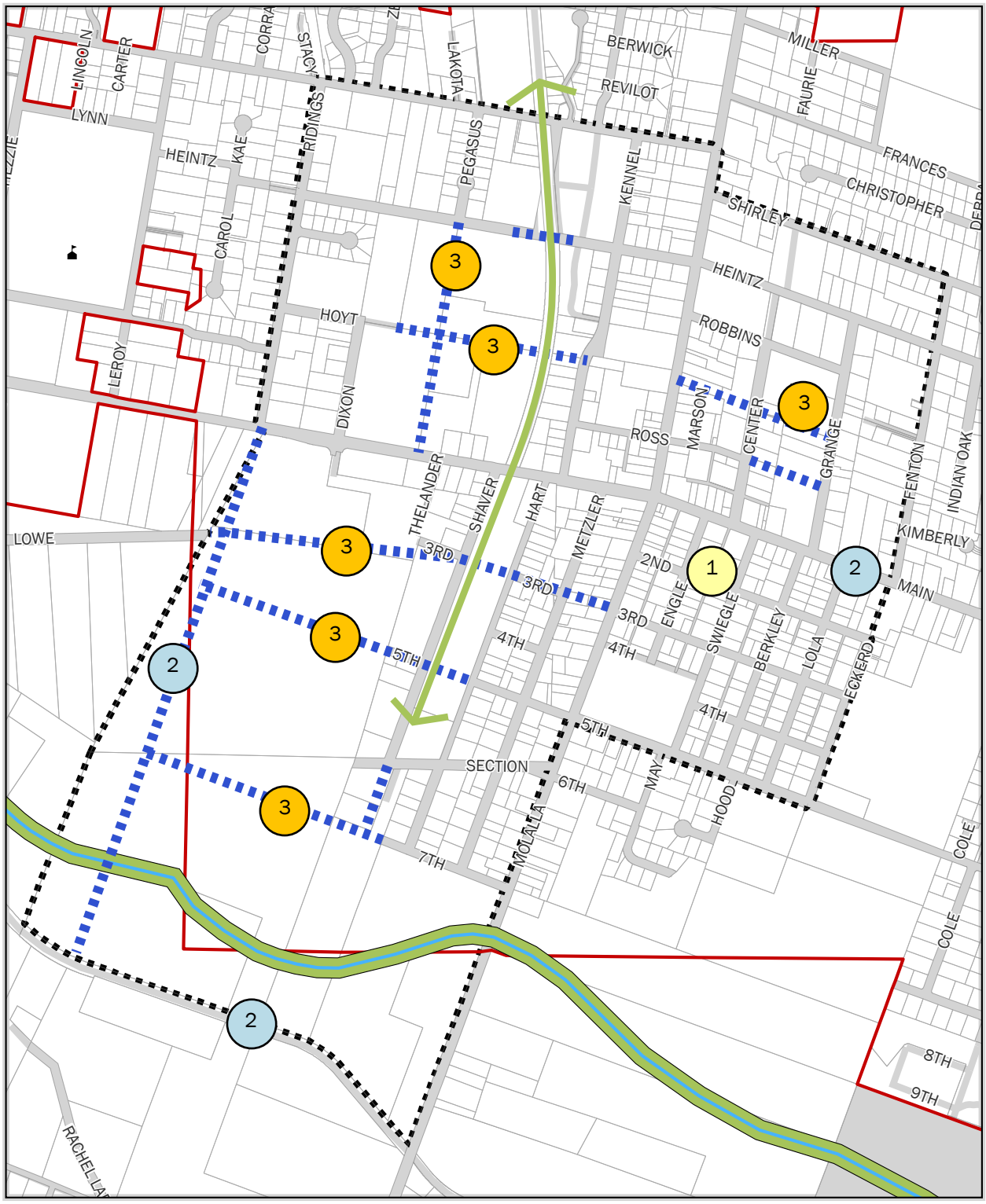
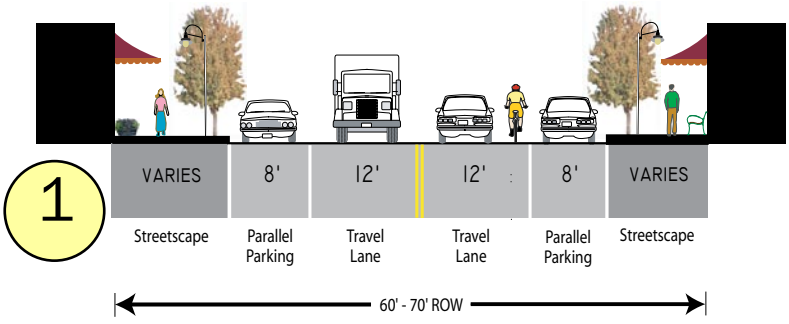
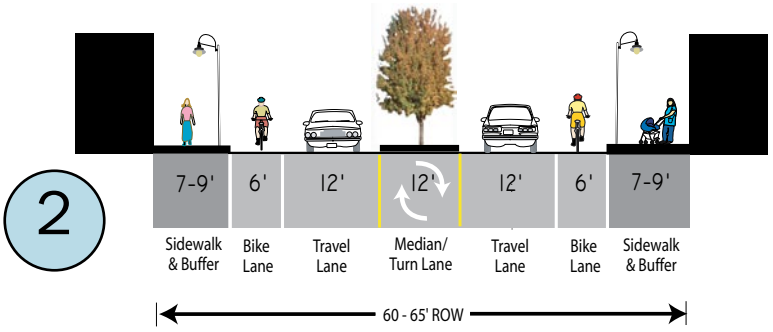


Figure 6.1: Transportation Typologies Map

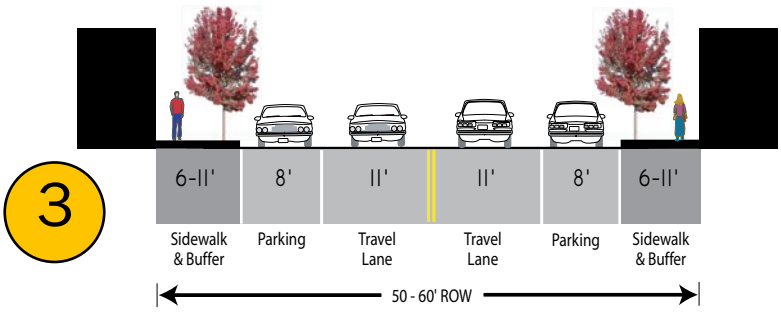
In addition to the land use typologies, conceptual cross-sections were developed for the various street types in the study area. Typical cross-sections were developed for arterials, collectors, and local streets. Each of these cross-sections (illustrated below) was designed to support the type and scale of the proposed land uses for Downtown. To the left is a map showing a conceptual transportation network for Downtown - with proposed new connections shown as dashed lines and legend numbers corresponding to the street types below. This conceptual transportation network served as the basis for those networks described in each of the Land Use / Transportation Concepts that follow. The proposed connections vary with each concept, reflecting the importance of the linkage between land use and transportation.



Proposed Main Arterial Street Cross Section



Proposed Collector Street Cross Section



Proposed Local Street Cross Section

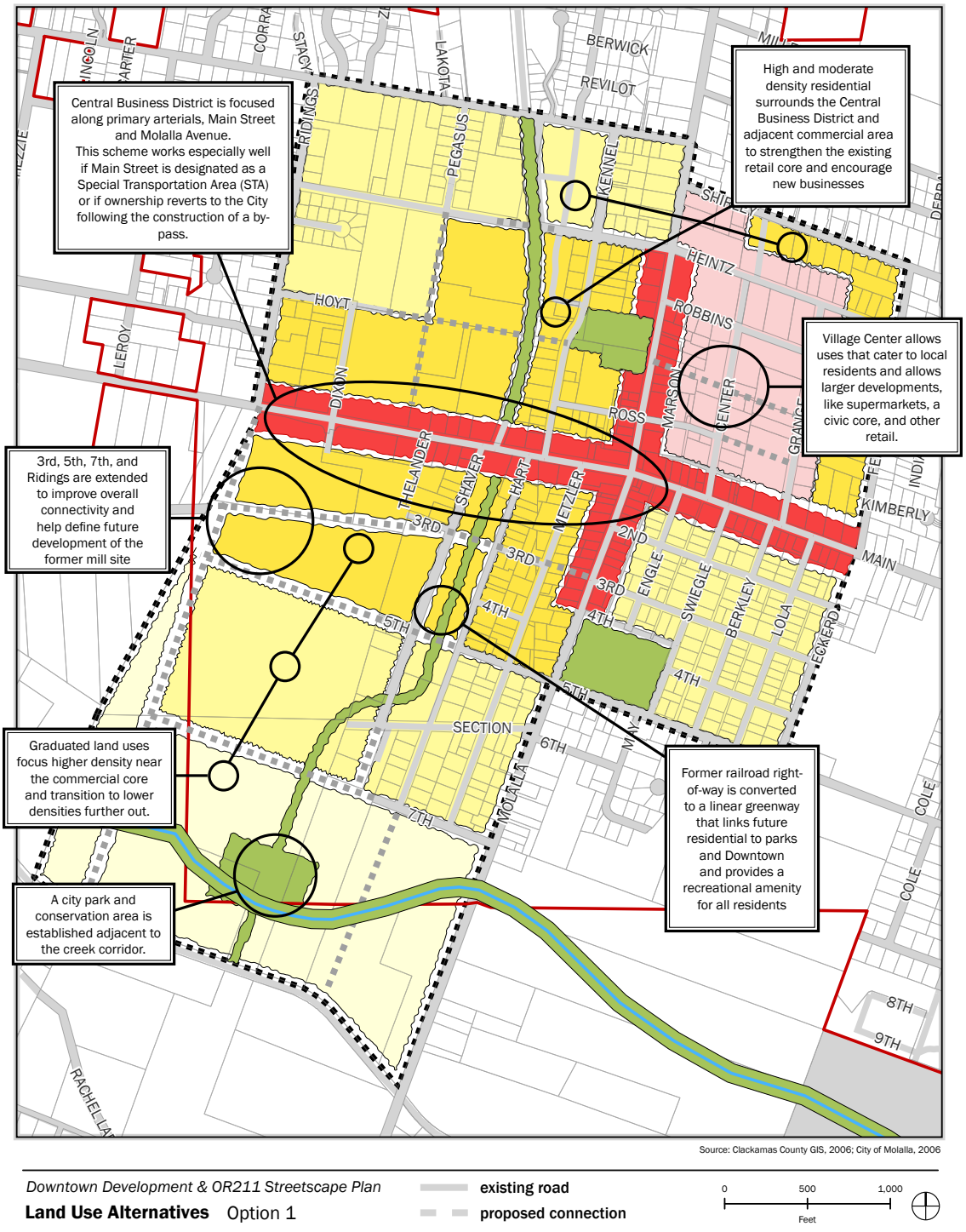
Figure 6.2: Typical Cross Sections

Land Use / Transportation Option 1: Main Street / Village Center

The Main Street / Village Center option centers the Central Business District (CBD) on the intersection of Main and Molalla, and extends it along both of these streets, thereby encouraging fine-grained, traditional Main Street-style development along both of these streets throughout Downtown. Such a development pattern would create a "clear identity" for Downtown - one that recognizes the City's "small-town atmosphere" - as specified in the Guiding Principles. It would also encourage pedestrian-oriented retail as properties (along Main in particular) redevelop. A "Village Commercial" area would exist in the northeast quadrant of Downtown, where the CBD is currently located. This zone would allow for both smaller-scale, infill commercial, as well as for larger commercial uses, such as supermarkets.

These commercial zones would be surrounded by a mix of residential uses, with higher-density residential areas located closer to the CBD. Additional parks and open space would be provided for within the Downtown - including the conversion of the former rail line into a linear park / trail system. Connectivity would be improved throughout the Downtown, primarily with extensions of existing roadways. This increased connectivity would, perhaps, be most noticeable on the former mill site (in the southwest quadrant), which is currently comprised of large, contiguous parcels.

Land Use / Transportation Option 1: Main Street / Village Center



Option 1: Main Street / Village Center

Figure 6.3: Land Use / Transportation Option 1: Main Street / Village Center

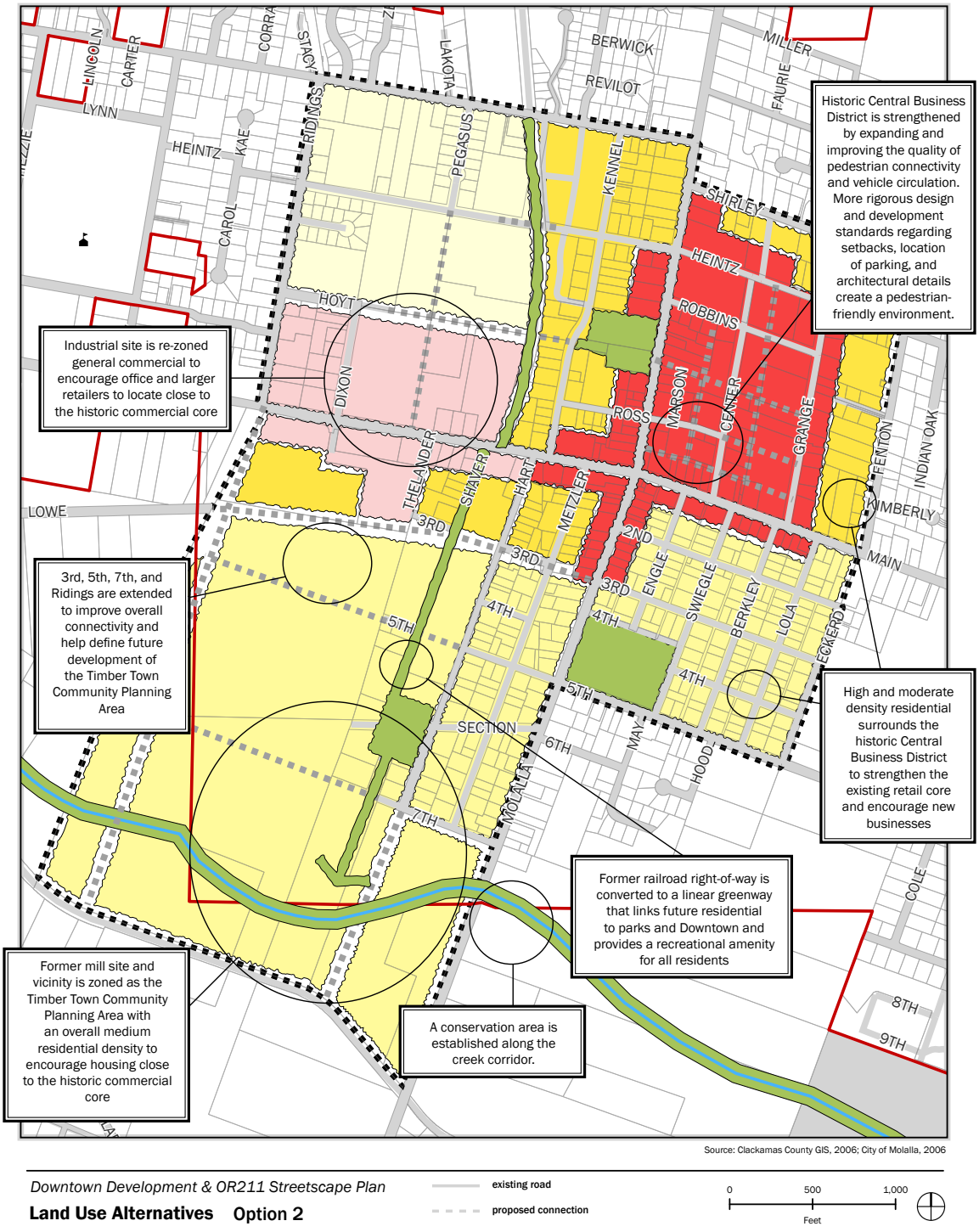
Land Use / Transportation Option 2: Downtown Revival

This option proposes strengthening the existing Central Business District by overlaying a fine-grained transportation network. Existing accessways and new local streets would provide enhanced connectivity, increasing pedestrian mobility and providing an orderly framework for future development. Although portions of Main and Molalla would be included as "Main Streets," this CBD would function more as a district than Option 1, with infill and redevelopment occuring on currently underutilized land. Residential uses would be allowed within the CBD, but ground floors would have a commercial use requirement. All new development would be held to rigorous design and development standards to ensure that setbacks, the location of parking, landscaping, and architectural details work together to form an attractive and pedestrian-friendly downtown core. Such a development pattern would create a "clear identity" for Downtown - one that recognizes the City's "small-town atmosphere" while preserving and enhancing the unique, historic quality of Downtown.

To the east of the CBD (along Main and on the former industrial site north of Main) would be a general commercial zone. This zone would encourage offices, groceries, and larger format retailers to locate closer to the City's historic commercial core. Development and streetscape standards in this area would be rigorous and pedestrian-friendly. These commercial zones would be surrounded primarily by higher-density residential uses. New park spaces would also be provided - primarily on the former mill site (in the southwest quadrant of Downtown).

The former mill site would be rezoned as the Timber Town Community Planning Area and would allow for an overlay zone. This overlay zone area would have an overall medium-density residential requirement, with higher-density housing occuring closer to the commercial core (north and northeast) and to the community uses to the west. Commercial uses would be allowed within the overlay zone, although they would be required to be located to the north and northeast in order to complement the CBD and general commercial zones.

Land Use / Transportation Option 2: Downtown Revival



Option 2: Downtown Revival

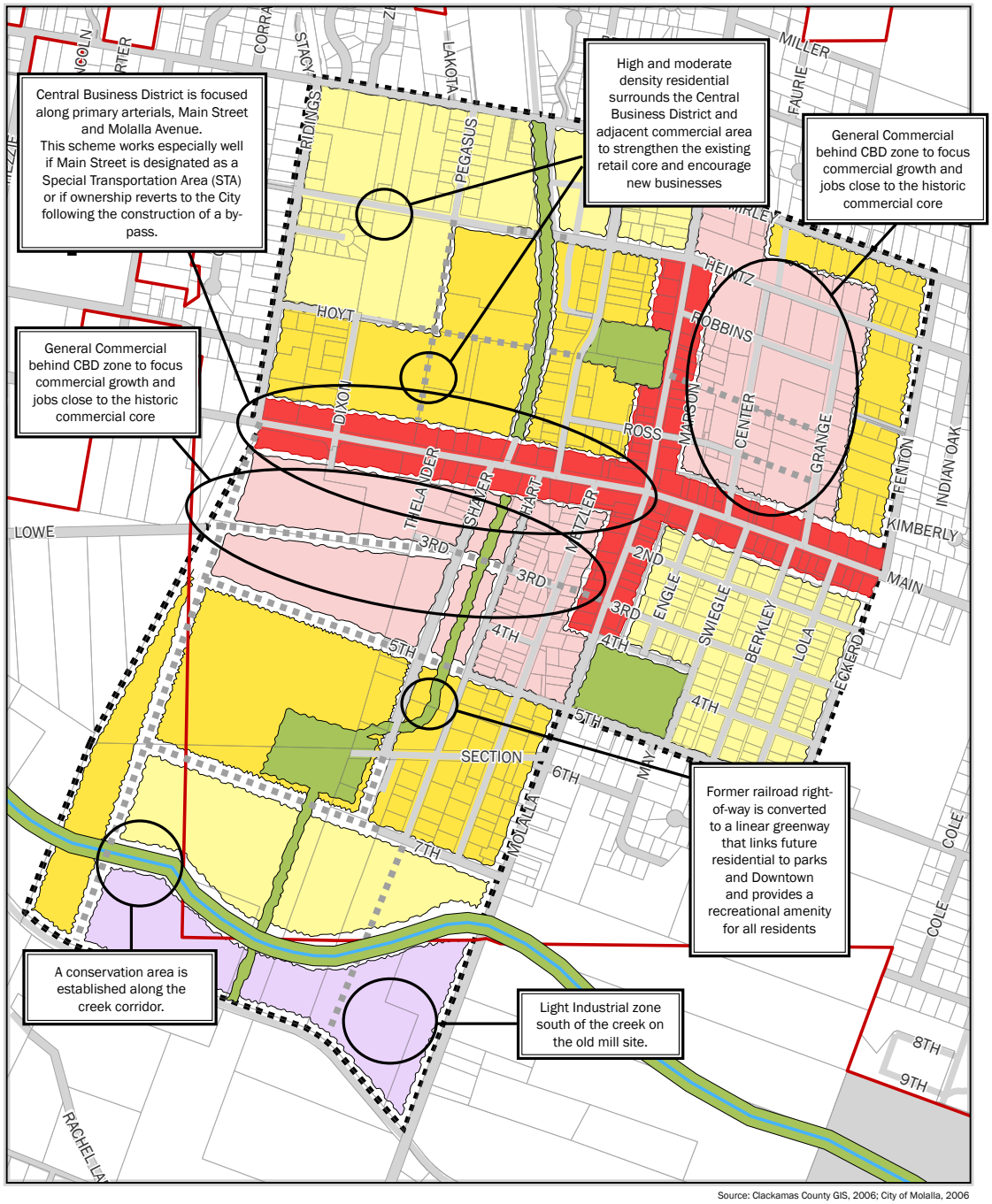
Figure 6.4: LAnd Use / Transportation Option 2: Downtown Revival

Land Use / Transportation Option 3: Main Street / Employment

Land Use / Transportation Option 3 combines the traditional "Main Street" approach described in Option 1 with a strong focus on local jobs creation. This concept relies on designating OR 211 / Main as a Special Transportation Area (STA) and focusing a CBD zone along Main and Molalla through the Downtown. In this way, these two streets become true "Main Streets" whose buildings and streetscape are pedestrian-friendly and attractive to residents (current and potential) and visitors. Such a development pattern would create a "clear identity" for Downtown - one that recognizes the City's "small-town atmosphere." It would also encourage pedestrian-oriented retail as properties (along Main in particular) redevelop.

Connectivity would be improved throughout the Downtown, primarily with extensions of existing roadways. This increased connectivity would, perhaps, be most noticeable on the former mill site (in the southwest quadrant), which is currently comprised of large, contiguous parcels. Additional parks and open space - including a linear park / trail system on the former rail line - would be provided for within the Downtown.

Land Use / Transportation Option 3: Main Street / Employment



Source: Clackamas County GIS, 2006; City of Molalla, 2006

Downtown Development & OR211 Streetscape Plan
Land Use Alternatives Option 3

existing road
proposed connection

0 500 1,000
Feet

Option 3: Main Street / Employment

Figure 6.5: Land Use / Transportation Option 3: Main Street / Employment

Preferred Land Use / Transportation Concept

Land Use

This Preferred Land Use / Transporation Concept creates a "clear identity" for Downtown - one that recognizes the City's "small-town atmosphere" while preserving and enhancing the unique, historic quality of Downtown. As such, it builds upon the "Downtown Revival" option, and incorporates aspects of the "Main Street / Village Center" and "Main Street / Employment" options. It strengthens Molalla's existing Central Business District by overlaying a fine-grained transportation network. New local streets provide enhanced connectivity, and thereby increase pedestrian and vehicular mobility. Such a grid also provides a framework for future development of a type best-suited to a CBD. While portions of Main and Molalla would be included as "Main Streets," the key term for this Downtown concept is "district," with infill and redevelopment occuring on currently underutilized land throughout the CBD. Residential uses are allowed within this district, but ground floors have a commercial use requirement. All new development will be held to rigorous design and development standards to ensure that setbacks, the location of parking, landscaping, and architectural details work together to form an attractive and pedestrian-friendly downtown core.

To the west of the CBD on either side of Main is a general commercial zone that encourage offices, groceries, and larger format retailers to locate closer to the City's historic commercial core. (Issues related to this area's former industrial uses preclude residential development.) Development and streetscape standards in this area would be well-defined and pedestrian-friendly. To the southwest of the CBD is an employment zone, reflecting current uses within this area. This zone will (continue to) allow office, distribution, medical offices, and light, non-nusiance industrial uses.

These commercial and employment zones will be surrounded primarily by higher-density residential uses, which will support a walkable Downtown district by placing residences in close proximity to retail and services. Moderate-density residential uses would be maintained in the current "Downtown Neighborhood" area to the south and east of the Main / Molalla intersection. (Note: Higher-density residential uses are shown on the former industrial site south of the Heintz/Pegasus intersection. Should this land have issues that disallow residential uses, then this area would be re-zoned for employment uses.)

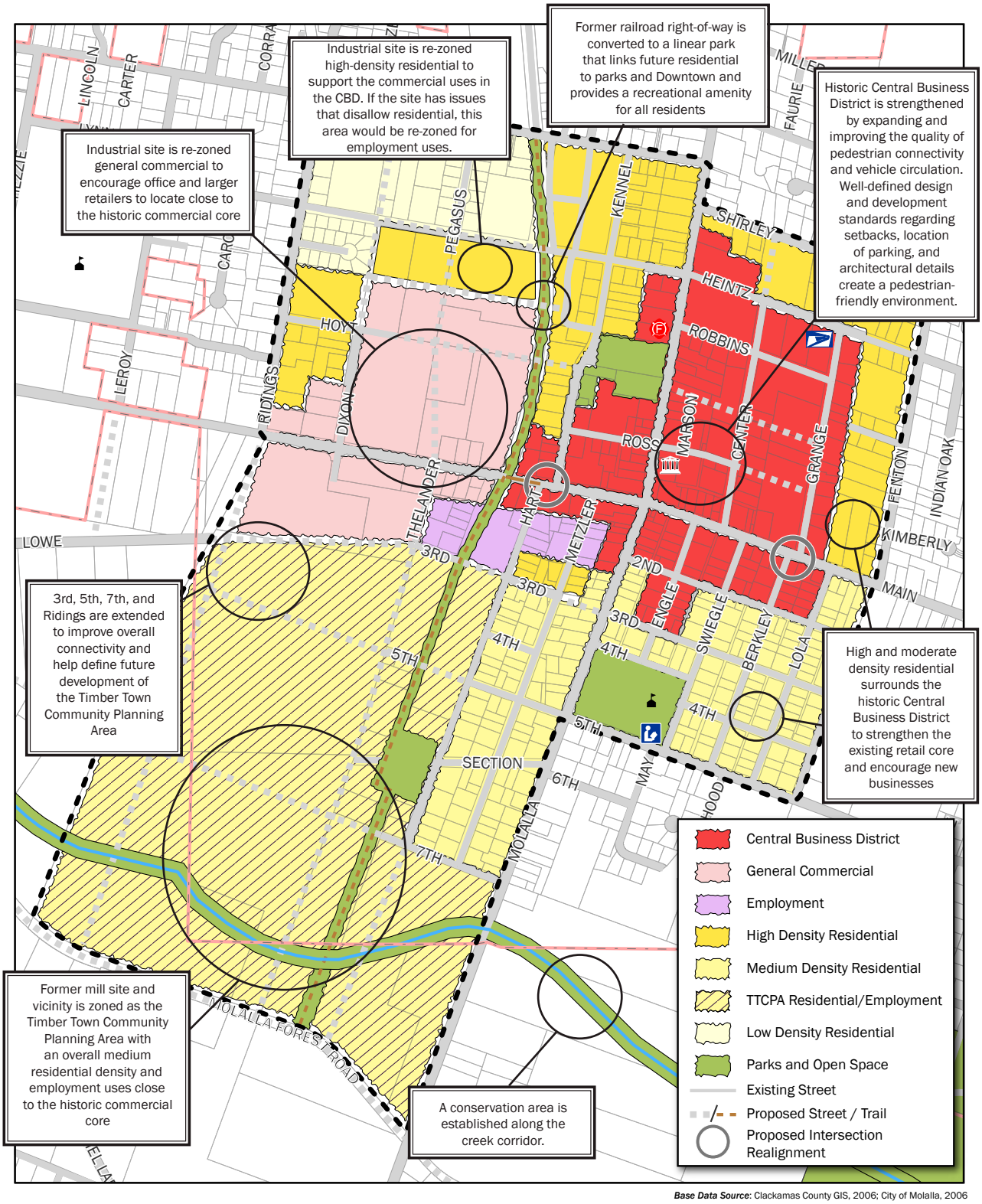
The large, former mill site (in the southwest quadrant of Downtown) will be zoned as the Timber Town Community Planning Area (TTCPA) which will have an overall medium-density residential / employment requirement, with higher-density housing occuring closer to the commercial core (north and northeast) and to the community uses to the west.

Environmental

The mill site / overlay zone will have rigorous connectivity and open space standards, including the development of a public park and an open space / trail system along the former rail alignment and Bear Creek. Setback requirements will protect riparian areas and water quality for the creek.

Economic

Downtown, pedestrian-scaled retail will be focused in the historic CBD. By focusing this type of commercial activity in the central business district, patrons can be encouraged to 'park once' to visit several locations in the area. Allowing for mixed-use (residential or office above commercial) in the central business district with clear design standards will help encourage positive retail and pedestrian activity downtown over time. Such a provision could also lead to an increased market for downtown businesses - as would higher-density housing in those areas surrounding the CBD. Conversely, the provision of additional retail, services, restaurants, and other commercial amenities will contribute to increased property values for those residences within close proximity.



Base Data Source: Clackamas County GIS, 2006; City of Molalla, 2006

Molalla Downtown Development & OR 211 Streetscape Plan

Preferred Downtown Land Use / Transportation Concept

0 500 1,000
Feet

06.21.07

Figure 6.6: Preferred Downtown Land Use / Transportation Concept

7. DOWNTOWN TRANSPORTATION ELEMENT

Preferred Transportation Network

As properties and districts redevelop within Molalla's Downtown, it is anticipated that new access connections will be made to improve overall connectivity and travel options. The Preferred Transportation Concept posits a network of such connections that is tailored to adjacent land uses. Wherever possible, new connections are to be provided in alignment with existing roadways. (Along these lines, the Preferred Concept advocates aligning Hart / Kennel and Berkley / Grange across Main to improve both connectivity and safety.)

One large move envisioned by the plan is the routing of truck traffic from OR 211 to the Molalla Forest Road. Additional new major collectors within the Downtown would be Ridings (extended south of Main to the Forest Road) and 5th (extended west to meet the Ridings extension).

As previously mentioned, the Preferred Land Use / Transportation Concept envisions a finer-grained grid of local streets within the Central Business District - allowing for better connectivity and an organization of the CBD into a clearer block pattern to inform future development. To achieve this pattern, Ross will be extended to the east of Center, and a new east-west connection added between Ross and Robbins. To some degree, this pattern of streets and blocks will mirror that in the residential neighborhood to the south of Main, although the blocks in the CBD will be somewhat larger.

New local streets would also be carved through the former industrial area in the northwest portion of Downtown, as would an extension of Pegasus to connect to Thelander south of Main. (Thelander, then, would connect to the Molalla Forest Road as a Neighborhood Street.) Within the Timber Town Community Planning Area, existing segments of Lowe and 3rd would be connected, and 7th would be extended to the west. In addition to these roads, a finer grid of local streets would be platted concurrent with master planning for the overlay zone.

Where new roadways are not feasible or desirable, pedestrian accessways (example to right) could provide connections to commercial business and services, residences, parks, and other community resources.

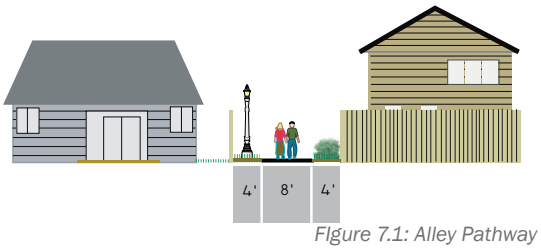
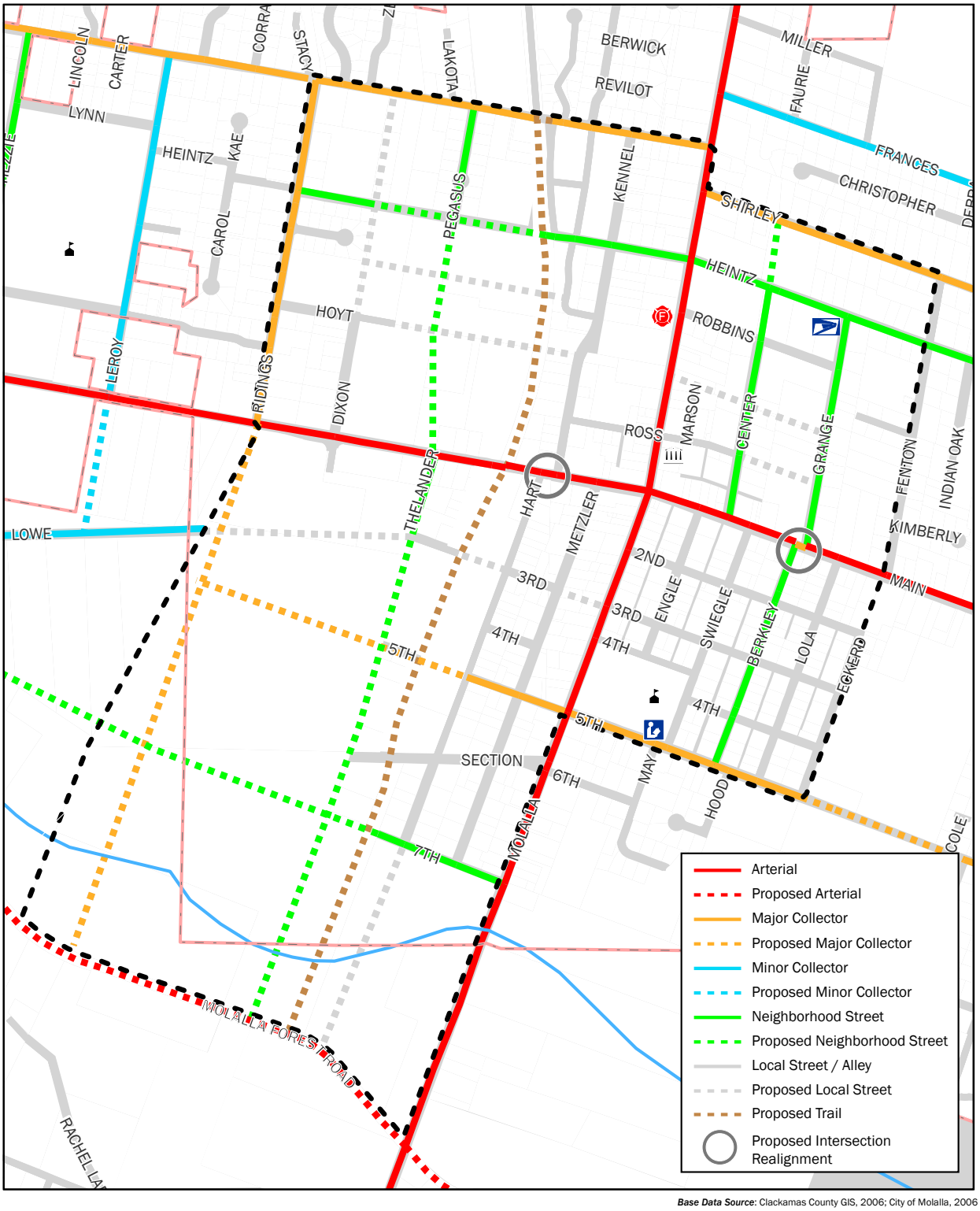


Figure 7.1: Alley Pathway

In addition to the proposed street connections, there is a significant opportunity to construct a linear park / trail system that would run north-south through Downtown along the former railroad alignment. A multi-use trail system (conceptually illustrated below) would connect another proposed trail along Bear Creek to development along the former mill site (south of Main) and the former industrial site (north of Main). Additional east-west connections to this trail are recommended to/from other destinations, such as the Adult Center, Library, and Clackamas Community College. The City of Molalla is undertaking a separate parks and trails master planning process that will further explore this linear trail concept.



Base Data Source: Clackamas County GIS, 2006; City of Molalla, 2006

Molalla Downtown Development & OR 211 Streetscape Plan

Preferred Downtown Transportation Concept

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Feet

07.09.07

Figure 7.2: Preferred Downtown Transportation Concept

Downtown Streetscape Concepts

This section provides text and graphics to illustrate the final Molalla Downtown Streetscape designs.

Sidewalks & Pedestrian Crossings

A sidewalk inventory was performed as part of this project. Based on the findings, the pedestrian improvement plan recommends completion of the sidewalk network.

In the Molalla Downtown area, a number of curb extensions and ladder-marked crosswalks are recommended for crossings of Molalla Ave. (Toliver Rd., Shirley St., Heintz St., Robbins St., Ross St., Second St., Fifth St.), as well as for the existing mid-block crossing of Molalla Ave. at Long Park. Curb extensions may be planted in order to beautify downtown; this also provides an opportunity for on-site stormwater management ("green streets").

Ladder-marked crosswalks are recommended at all existing crossings in the downtown area (at Robbins St./Center St., Robbins St./Grange St., Ross St./Center St., and Fifth St./ Eckerd Ave.). A number of new ladder-marked crosswalks are recommended (at Robbins St./Toliver Rd., Eckerd Ave./Fifth St., and the potential future rail-trail crossing at Toliver Rd.).

ADA-compatible ramps and landing pads are recommended at all crossings.

Note: ODOT approval is required for all marked pedestrian crosswalks on OR 211/Main Street.

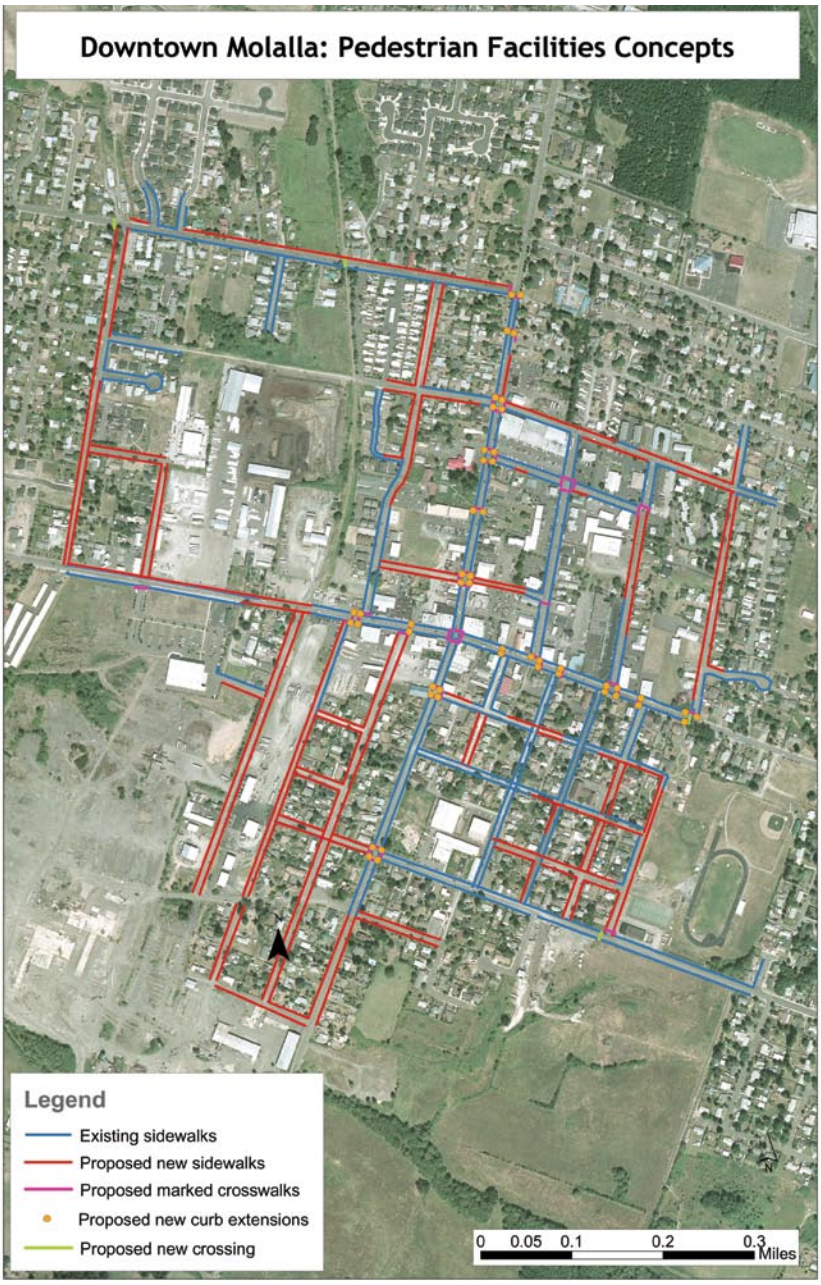

Figure 7.3: Pedestrian Facilities Concepts

Typical Roadway Cross-sections

The 2001 Transportation System Plan (TSP) recommends a cross-section that includes two travel lanes and two parking lanes on downtown streets of classification arterial / major collector (right-of-way width 60 to 70 feet). The travel lane functions as a shared lane for both automobiles and bicycles. Sidewalks are provided for pedestrians. Streetscape elements such as street trees and street furnishings are recommended.

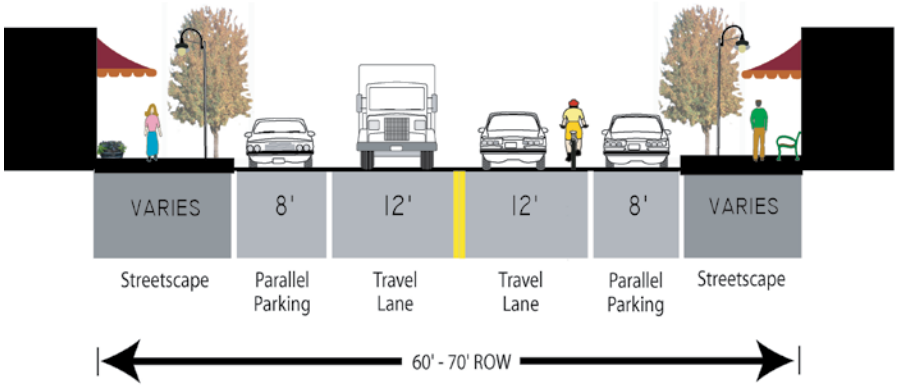

Figure 7.4: Proposed Arterial / Major Collector Downtown (Option B in TSP)

The TSP recommends a cross-section that includes two travel lanes, two bike lanes, and a center turn lane on streets of classification arterial / major collector outside of downtown (right-of-way width 60 to 68 feet). Sidewalks are provided for pedestrians. Where a continuous center turn lane is not required, this plan recommends implementing a planted center median. Streetscape elements such as street trees and street furnishings are recommended.

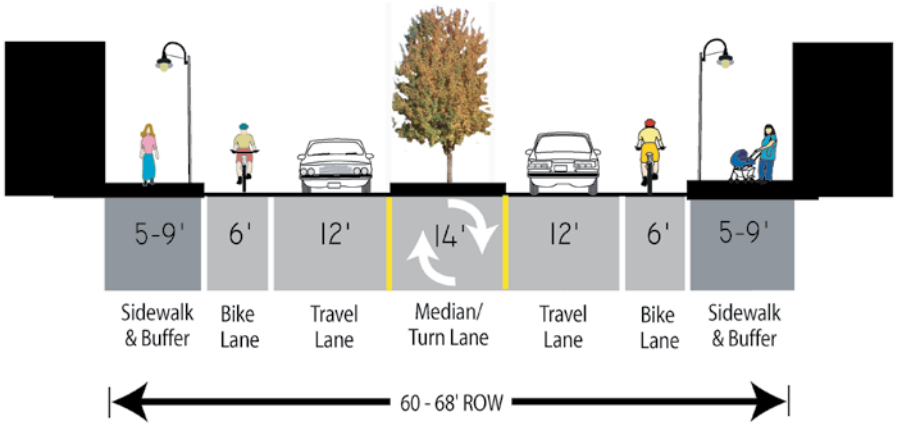

Figure 7.5: Proposed Arterial / Major Collector Street (Option A in TSP)

The TSP recommends a cross-section that includes two travel lanes and two parking lanes on streets of classification minor collector, neighborhood street and local street. The travel lane functions as a shared lane for both automobiles and bicycles. Sidewalks are provided for pedestrians. Streetscape elements such as street trees and street furnishings are recommended.

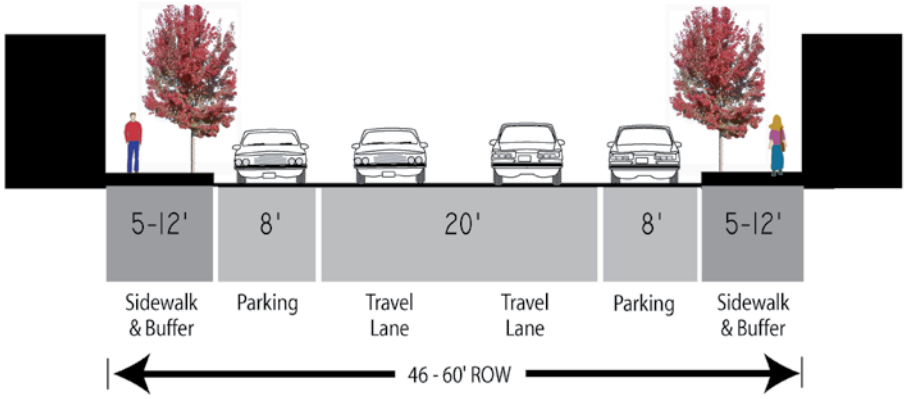

Figure 7.6: Proposed Minor Collector / Neighborhood Street / Local Street Cross Section

Downtown Streetscape Recommendations

The *Downtown Streetscape Concept Plan* demonstrates how elements such as street trees, pedestrian-scale lighting, curb extensions and marked crosswalks, and planted buffers may interact at a sample intersection. A pedestrian alley concept is illustrated as well. The conceptual design is based on current and proposed land uses, and the existing City TSP street standards, and creates a multimodal, pedestrian-friendly Downtown core.

Figure 7.7: Main / Molalla Streetscape Plan

This Toolbox illustrates specific streetscape elements (such as lighting, gateways, pedestrian curb extensions, and paving patterns) which can be applied to create a vibrant, pedestrian-friendly Downtown.

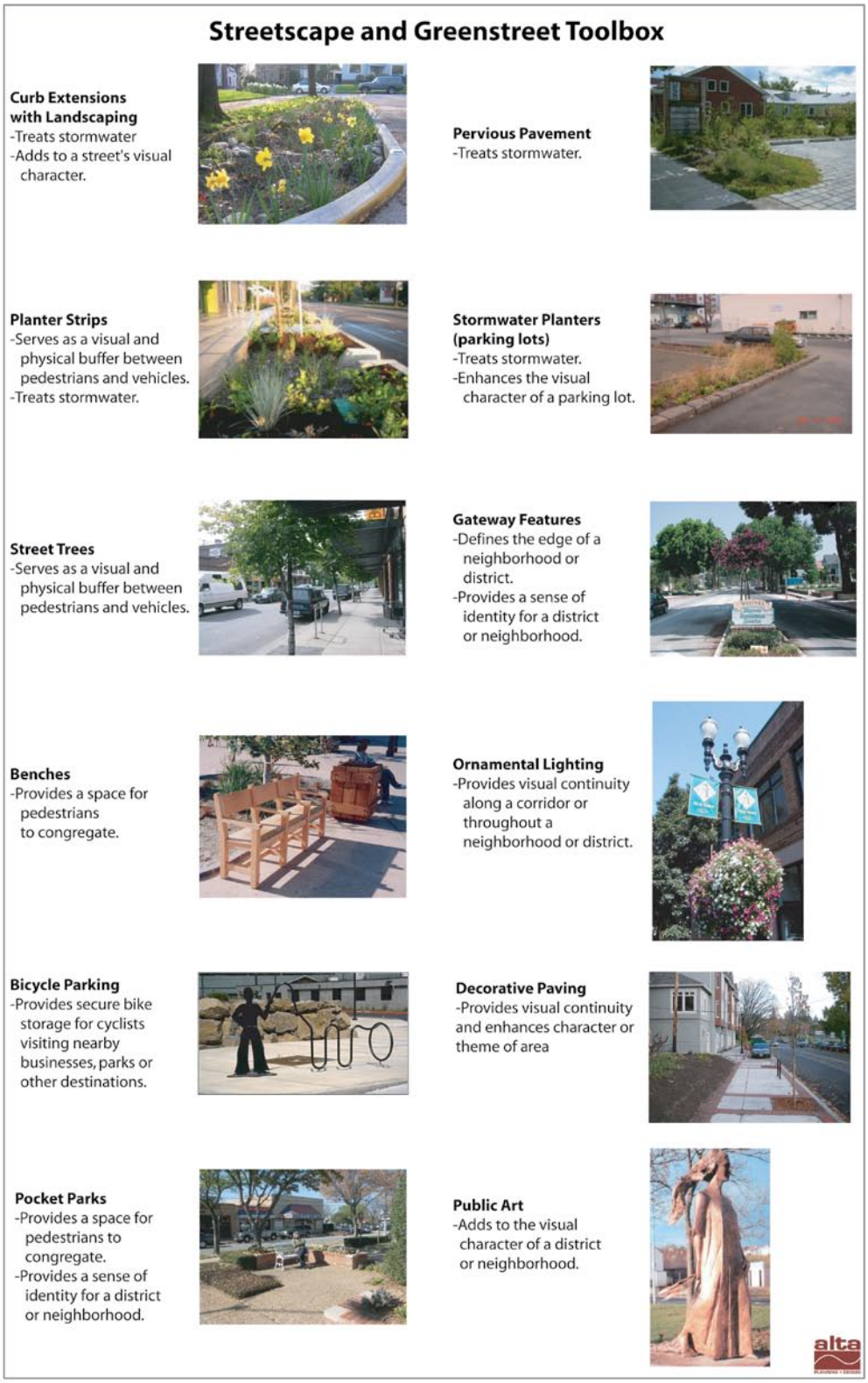

Figure 7.8: Streetscape and Greenstreet Toolbox

Gateway Toolbox




Gateway treatments are proposed for the four primary entrances into Downtown - on Main and Molalla. Such treatments mark a symbolic entrance to an area and draw attention to the business environment. Gateway elements can include physical gateways or arches; flowers, trees and other landscaping; benches or other public space; public art or natural sculptural features; unique fencing or walls; and signage. Gateways should reflect the history, culture, and character of the city and its residents.





Figure 7.9: Gateway Toolbox

Downtown Parking Strategy

As summarized in a separate technical memo, the review of existing parking conditions does not indicate an existing shortage of parking for the downtown core, although there may be specific locations with parking constraints. However, there are opportunities to improve the convenience and efficiency of the downtown parking system through changes in signage and parking layout. Further, the city can take steps now to establish a parking management framework that will evolve as demand increases.

Recommendations addressing the development of future parking, both private and public, are included here. In vibrant downtown areas, shared public parking facilities are typically the most efficient means of meeting parking demand. For this reason, mechanisms are identified to create public parking in the future, with potentially less dependence on private accessory parking. These measures are also intended to encourage economic development by providing flexibility in zoning requirements. Responsibility for implementing these strategies will lie primarily with the City, although TEAM and others will be valuable partners. Recommended changes to the existing parking system include:

- Change layout and circulation of public parking lots. Ensure that parking facility design standards require that circulation be provided on site.
- Create a Customer Parking Zone in commercial areas that would include all two-hour parking locations. Some uncontrolled parking could remain to meet employee needs. However, in areas targeted for commercial development, the city should make known an intention to provide customer parking as the priority. In particular, the priority for on-street parking in such a zone should be access for customers.
- Delineation of a Customer Parking Zone should be part of a general public information effort to emphasize the customer oriented vision for the downtown core.
- Identify employee parking areas to ensure that as customer parking needs increase in the core, employees will have adequate access to jobs in the core. These employee parking areas need not be actively managed for employees at this time, but are intended to ensure that employee access is maintained as changes in the downtown parking environment evolve.
- Provide signage directing customers to public parking from key downtown entry points. These signs also can be used to provide a clear indication of welcome for retail shopping zones.
- Modify development requirements to provide flexibility for new developments while supporting the pedestrian environment and multi-modal transportation options.
- Implement reduced minimum parking ratios in the downtown core; also consider maximum parking ratios. Appropriate minimum and maximum parking ratios should be determined based on a detailed parking demand data collection and analysis effort.
- Allow a reduction in parking requirements for shared parking facilities. The reductions should account for complementary demand profiles for different land uses (i.e., residential has peak demand in the evening, while offices have peak demand during the day). In addition, parking requirement reductions should account for “internally captured” trips that reduced the need for individuals to park multiple times for different activities (i.e., coffee shops located near office buildings typically have a high degree of internal capture).
- Provide a fee-in-lieu option for new developments. Developers would have the option of paying a fee to the City instead of building on-site parking. All fee revenue should be directed to a designated parking fund. Appropriate uses for fee-in-lieu revenue should be established prior to collecting any revenue.
    - Establish a parking fund to the provision of public parking or other downtown economic development strategies (i.e., purchase land for parking, implement sidewalk improvements, etc.).
    - Allowable improvement categories should be identified upon establishment of the parking fund. Identify parcels for potential future public parking facilities, as needed.

8. OR 211 STREETSCAPE PLAN

Future Traffic Conditions for Downtown Molalla and OR 211

This section details the trip generation and distribution assumptions used to model Molalla's traffic growth through the year 2027, based on the preferred design concept. This section also reports future traffic conditions if all improvements identified in Molalla's Transportation System Plan (TSP) are constructed, and presents and discusses alternative improvement concepts for the Main/Molalla intersection.

Proposed Zoning Traffic Analysis

Trips generated by residential, retail, industrial, and services-related land uses were distributed onto Molalla's road network as described in the previous section. Growth due to construction, school, and government-related land uses were accounted for by an overall growth factor applied to each intersection.

Two methods are used to establish traffic operations standards. The City of Molalla uses the concept of level of service (LOS), while ODOT uses the concept of volume-to-capacity (v/c) ratio. These methods are described in the Existing Conditions section of this report.

The Molalla TSP identifies the following roadway projects that would impact traffic volumes and operations within this project's study area, and which we assumed would be constructed by 2027:

- The Molalla Forest Road would be reconstructed and used as a controlled-access truck and through-traffic bypass of downtown Molalla. If the City's UGB were to be expanded to the south, the road would also provide an alternative to Main Street for traffic generated by new development in the UGB expansion area.
- The **Molalla Forest Road**/**Main Street** and **Mathias Road**/**Main Street** intersections would be reconstructed as roundabouts.
- The **Main Street**/**Leroy Avenue** intersection would be signalized.
- The **Main Street**/**Molalla Avenue** intersection would be signalized, with left-turn lanes provided.
- The **Shirley Street**/**Molalla Avenue** intersection would be signalized.

The TSP contemplated that a new street grid would be constructed within the old mill site, and that an extension of 5th Street to Leroy Avenue would provide an alternative route for traffic to get from Molalla Avenue to Main Street, without having to pass through the Main Street/Molalla Avenue intersection. The Preferred Downtown Land Use Concept provides such a grid, with the connection via Ridings Avenue. Because the mill site would be developed as residential under the Preferred Concept, rather than as industrial under the existing comprehensive plan, diverting traffic through the area becomes a less attractive option. Table 4 lists the year 2027 traffic conditions during the weekday p.m. peak hour at the study intersections, based on the Preferred Concept land uses, and with the road improvements described above.

As Table 4 shows, traffic operations on Highway 211 would be considerably improved if the Molalla Forest Road were available as a parallel facility to relieve some of the traffic. Stop-controlled intersections along Highway 211 west of downtown would sometimes exceed the City's level-of-service standard of "D", but would operate well within their capacity. These intersections would likely operate better than indicated in this table, as the new traffic signals would create longer gaps in traffic that side-street traffic could use.

Table 4: Year 2027 Weekday PM Peak Hour Traffic Conditions: Preferred LU Concept, TSP Projects			
Intersection	v/c Ration	Avg. Delay (sec)	LOS
Highway 213/Highway 211 (signal)	0.93	40.8	D
Molalla Forest Road/Highway 211 (roundabout)	0.79	16.5	*
Leroy Avenue/Highway 211 (signal)	0.64	12.3	B
Dixon Avenue/Highway 211 (stop control)	0.38	32.3	D
Ridings Avenue/Highway 211 (stop control)	0.26	39.1	E
Kennel Avenue/Highway 211 (stop control)	0.20	23.1	C
Molalla Avenue/Highway 211 (signal+turn lanes)	0.97	59.6	E
N. Cole Avenue/Highway 211 (stop control)	0.39	32.9	D
Mathias Road/Highway 211 (roundabout)	0.49	6.4	*
Molalla Avenue/5th Street (stop control)	0.49	56.9	F
Molalla Avenue/Shirley Street (signal)	0.47	4.2	A
Leroy Avenue/Toliver Street (stop control)	0.33	20.3	C
*LOS ranges have not yet been defined for roundabout intersections.			

Table 8.1: 2027 Weekday Peak Hour Traffic Conditions

With the availability of the Molalla Forest Road, less Oregon City-bound traffic would use Molalla Avenue through town, resulting in greater traffic volumes through the Highway 213/Highway 211 intersection, which would slightly exceed ODOT's v/c standard by 2027. The Main/Molalla intersection would meet operational standards, but would require excessively long left-turn lanes, as discussed in the next section.

Recommended Special Transportation Area (STA) Designation

The City, the DOTF, and the TAC recommend an STA designation for the Downtown District segment of OR 211, and thus the Streetscape Concepts for this segment have been developed based on the design flexibility an STA provides. STAs are designations that can be given to certain state highways to recognize that local mobility and access needs in those areas are at least as important as the highway's role to move through traffic. Because Highway 211 is designated by ODOT as a District Highway and is not designated as a Freight Route or Expressway, and because the section of the highway through downtown Molalla looks like a traditional "Main Street," the highway meets the initial screening criteria for an STA.

The posted speed on OR 211 is 25 mph from Shaver St to Lola Avenue (MP 12.97) and on-street parking is available through nearly all of this section. Buildings front the street from Kennel Avenue to Engle Avenue on both sides of the street, and sidewalks exist between the buildings and the street. East of Engle Avenue, buildings generally front the north side of the street to Lola Avenue, although east of Berkley Avenue, many of the buildings are not oriented to the street. A parallel street grid exists east of Hart Avenue. Based on the combination of these street attributes, the TSP's identification of Hart Avenue (MP 12.64) to Grange Avenue (MP 12.94) reasonably matches the STA criteria under existing conditions. If an east-west street grid is developed west of Molalla Avenue, and if redevelopment of the auto-oriented land uses west of Hart Avenue to more "Main Street"-like uses occurs, a larger area could become eligible in the future.

Designating sections of the highway as an STA would (1) change the intersection operations standard from the normal 90% of capacity to 95% of capacity, and (2) would lower the access spacing standard from the normal 350 feet to as short as half the existing city block spacing.

The Oregon Highway Plan provides these other typical aspects of STAs:

- Buildings are spaced close together, and are located adjacent to and oriented to the street
- Sidewalks have ample width and are located adjacent to the highway and buildings
- Streets are designed with a pedestrian orientation
- Parking is on-street, or shared parking lots are located behind or to the side of buildings
- Public road connections correspond to the existing city block pattern; private driveways accessing the highway are discouraged
- Adjacent land uses provide for compact, mixed-use development
- A well-developed parallel and interconnected street network exists
- Speeds typically do not exceed 25 mph
- Plans and provisions are made for infill and redevelopment
- Provisions are made for well-developed bus stops, bicycle and pedestrian facilities, and street amenities that support these modes

OR 211 Streetscape Concept

The OR 211 Streetscape concept divides OR 211 into two sections - the *OR 211 Downtown District* (within the historic Downtown core) and the *OR 211 Corridor* (those sections east and west of Downtown to the City limits) - that recognize existing and proposed land uses, as well as standards identified in the City's TSP.

The preferred design illustrated by the OR 211 Concept Plan and the OR 211 Proposed Cross-Sections has been modified based on comments from the Downtown / OR 211 Task Force, the Project Management Team, and the Oregon Department of Transportation. OR 211 design features are conceptual and subject to ODOT review and approval at the time of highway improvement implementation.

The preferred design as shown assumes that OR 211 remains an Oregon State Highway, managed by ODOT. If at some point in the future the community desire to convert Molalla Forest Road to an official OR 211 bypass is realized, the existing OR 211 may revert to City of Molalla. At that time, the community can consider additional streetscape elements which are not permitted on ODOT highways, such as more frequent and/or enhanced pedestrian crossings or narrowed travel lanes (e.g. to widen sidewalk).

Figure 8.1: OR 211 Concept Plan

Summary of Highway Design

Design and dimensions shown in the Plan are generally consistent with current ODOT design standards, with the exception of the less than 10-foot sidewalks included in the Downtown STA. At the time of roadway improvement, development, specific designs and dimensions, and necessary design exceptions must be approved by ODOT. An intergovernmental agreement (IGA) between the City and ODOT will be needed for maintenance of the sidewalks, street trees, landscaping, lighting, signals, and other roadway features.

Parameter	OR 211 Corridor	OR 211 Downtown (STA)
Posted Speed	From city limits to Shaver: 40 MPH From Lola to city limits: 35 MPH	From Shaver to Lola: 25MPH
Access spacing	500 feet for 40 MPH section	As short as half a city block
Bike lane widths	6-foot lanes	5-foot lanes
Vehicle Lane Widths	12-foot lanes + 16 foot median/turn lanes	11-foot lanes (no median/turn lane)
Pedestrian crossing (marked crosswalks and curb extensions)	Marked crossings at signalized intersections (Leroy, Molalla) and roundabouts (Molalla Forest Road, Mathias) per TSP; curb extensions at Engle, Center, Sweigle, Berkley, Grange, Lola, Fenton	Marked crossings shown at current locations and at new signal at Main/Molalla
Sidewalk locations	Sidewalks at all locations	Sidewalks at all locations
Sidewalk widths	10-foot (includes planting area for street trees and/or landscaping)	10-foot; should be widened from current width at time of property redevelopment
Locations of on-street parking	No on-street parking	Two 7-foot parking lanes (north/south location TBD)
Traffic control changes	New signals proposed at Leroy, and roundabouts proposed at Molalla Forest Rd and Mathias	New signal proposed at Main/ Molalla
Landscaping	Street trees recommended for median and buffer	Street trees recommended for buffer
Street lighting	Standard highway lighting recommended	Pedestrian-scale street lighting recommended
Stormwater management	Piped stormwater drainage system must be implemented	Piped stormwater drainage system already in place

Table 8.2: Summary of OR 211 Highway Design

OR 211 Corridor Streetscape Design

Pedestrian Crossings

Along the OR 211 Corridor, no curb extensions are recommended because on-street parking is not recommended. Ladder-marked crosswalks are recommended at all signalized street crossings of OR 211. At the time of writing, no such crossings exist, but according to the City of Molalla Transportation System Plan (Kittelson and Associates, 2001), a signalized crossing will be implemented at Leroy Ave., and roundabouts will be installed at Molalla Forest Rd. and Mathias Rd. Accordingly, this plan recommends ladder-marked crosswalks at these three intersections. ADA-compliant ramps and landing pads are recommended at all crossings.

Access Management

ODOT access management (driveway spacing) will be implemented through the ODOT approach permit review as properties develop or redevelop, when roadway improvement projects are conducted, or if safety issues develop at an existing driveway. An improved network of local streets would provide alternative access opportunities for properties fronting OR 211. For detailed information on ODOT access management along OR 211, see Tech Memo 3, pages 5-6.

Utilities

If the City of Molalla is interested in undergrounding utilities, it is recommended that the City adopt this as a policy in the comprehensive plan and zoning code in order to obligate service providers to underground utilities when road construction or new utility placement occurs. On OR 211, ODOT would allow utilities to be placed under the sidewalk or a planting strip, but not under trees. ODOT can require utility providers to underground utilities located on highway right-of-way at the time of the highway improvement project. If the utilities are located on a private property easement, the City would need to require each utility company to underground their systems. Typically, costs are borne by the utility company; hook-ups to private property would be the financial responsibility of the property or business owner. The cost to underground is approximately double the cost of relocating existing overhead poles/wires. ODOT does not have readily-available information regarding the location of existing utilities along OR 211.

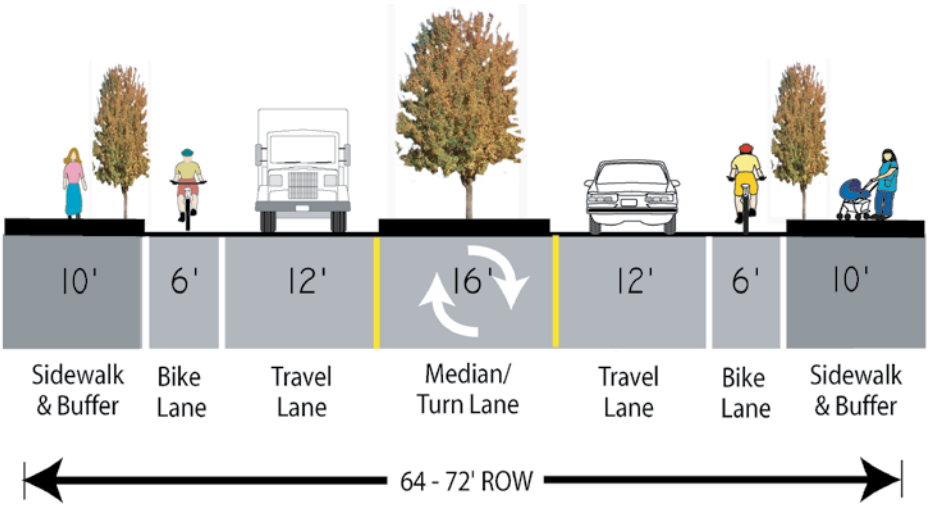

Figure 8.2: Streetscape concept for the OR 211 Corridor segments

OR 211 Downtown District Streetscape Design

Building the Molalla Forest Road as a bypass around Downtown Molalla is an essential part of implementing this plan. To successfully achieve the desired cross section for OR 211 and maintain a balance between the narrow travel lanes and bicycle lanes, major truck traffic will need to be routed around Downtown.

Pedestrian Crossings

In the "OR 211 Downtown District" (STA) area, curb extensions and ladder-marked crosswalks are recommended at all existing crossings of OR 211/Main St. through the area, as well as at one proposed new crossing (at Fenton St.). Curb extensions and ladder-marked crosswalks are also recommended for Center St. and Grange St. as they intersect with OR 211/Main St. Curb extensions may be planted with vegetation in order to beautify downtown; this also provides an opportunity for on-site stormwater management ("green streets"). (Note: vegetation must be kept low enough to ensure visibility of pedestrians and adequate sight distance for drivers.) Ladder-marked crosswalks are recommended for the intersection of OR 211/Main St. and Molalla Ave, but curb extensions are not recommended in order to accommodate truck turning radii (see next page for a detailed description of Main St./Molalla Ave. intersection design). ADA-compliant ramps and landing pads are recommended at all crossings.

Sidewalks

Assuming that Special Transportation Area (STA) designation is pursued by the community, a design exception will be required for any portions of sidewalks narrower than 10 feet wide, but ODOT has indicated that this exception would be considered as a temporary solution until enough right-of-way can be acquired. If the City has obtained necessary downtown sidewalk width at time of project implementation, the recommended cross-section can be implemented. If some but not all sidewalk width has been obtained, the recommended cross-section may be implemented, with plans to acquire additional sidewalk width at the missing lots upon future redevelopment. If little or no additional sidewalk width has been obtained by the time of project implementation, one of the two alternate cross section options detailed in the Implementation Plan should be considered. At the time of project development, there will be a public process to obtain community input as to which of the alternate cross sections should be used.

Bike Lanes

Bike lanes are provided in a designated lane for each direction of travel. the 5' lanes are acceptable for an STA area with slower speeds. Bicycle lanes provide a higher degree of safety by separating bicycles, pedestrians, and motor vehicle traffic.

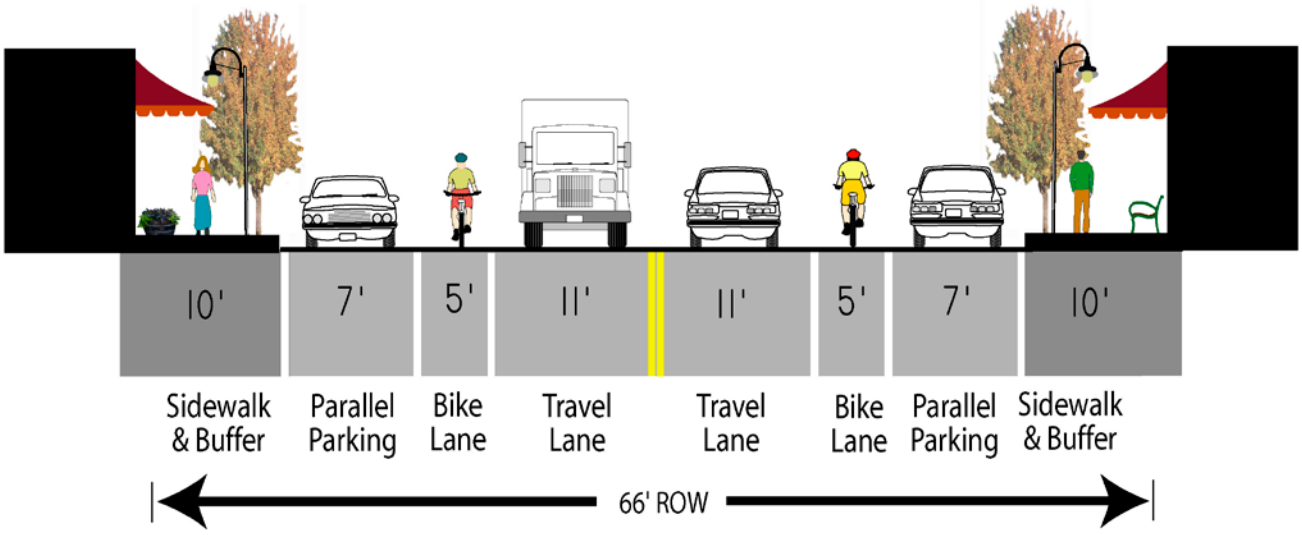

Figure 8.3: OR 211 Downtown Distric Ulltimate, Preferred Concept Plan

Main/Molalla Intersection Concepts

This section presents four improvement concepts for the Main/Molalla intersection and discusses both their traffic and potential community impacts. All of the options assume that the Main/Molalla intersection will be signalized at some point in the future when warranted by development. Sketches are provided for three of the four concepts; the fourth concept (prohibiting left turns during peak periods) requires no change to the existing intersection approaches. ODOT will need to revisit this preferred option when the signal at OR 211/Main and Molalla is warranted. When the project is built, there will be a public discussion about how best to address traffic impacts. It should be kept in mind that the need for any improvements beyond signalization may not occur for a number of years.

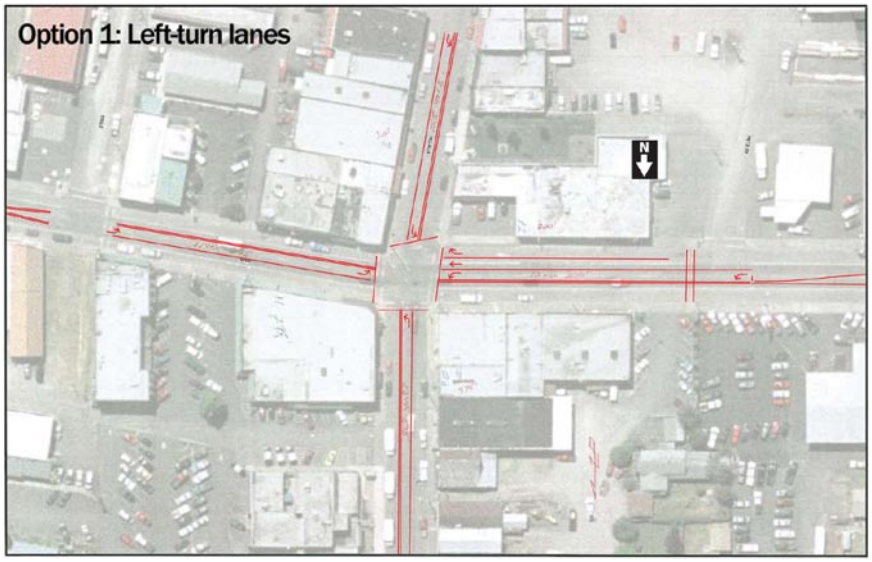

FIgure 8.4: Main / Molalla Option 1: Left Turn Lanes

Option 1 (left-turn lanes) produces acceptable operations in the year 2027, but eliminates on-street parking on Main Street and Molalla Avenue within 1-2 blocks of the intersection. The required left-turn lane lengths are excessively long, extending across more than one block on some intersection approaches.

Option 2 (north/south couplet) produces the best operations in the year 2027, but also entails the greatest costs with its need for a second traffic signal, additional signing and striping, and right-of- way acquisition to align Kennel Avenue with Hart Avenue. On-street parking is preserved and expanded, but traffic volumes on Hart Avenue increase and some southbound traffic must travel out of direction.

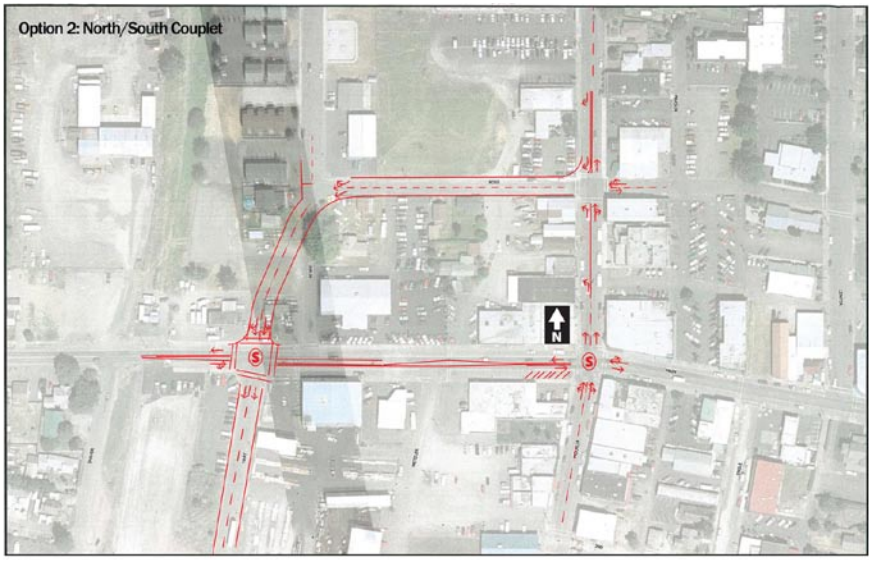

FIgure 8.5: Main / Molalla Option 2: North / South Couplet

Option 3 ("Silverton concept") produces operations at or exceeding standards in 2027, and generates the most out-of-direction travel of all the options. Right-of-way would need to be acquired to extend Metzler Avenue north to Ross Street. On-street parking is preserved.

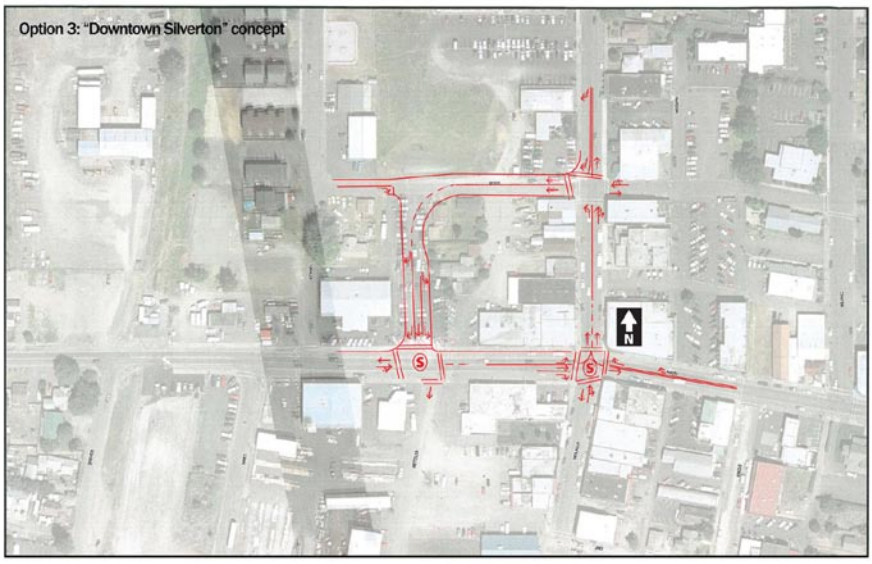

Figure 8.6: Main / Molalla Option 3: "Silverton Concept"

Option 4 (left-turn prohibition) produces the second-best operations in the year 2027 and preserves on-street parking. However, traffic volumes and turning movements would increase on all of the streets surrounding the Main/Molalla intersection, which would have neighborhood impacts.

Preferred Main/Molalla Intersection Concept: Prohibit Left Turns

The preferred concept (Option 4) is to prohibit all left turns at the Main/Molalla intersection, at least during peak periods. The intersection would operate efficiently as a two-phase signal. Overall traffic volumes could go up or down, depending on the routes motorists selected to make their left turn (i.e., turning left-right left prior to the intersection would result in less traffic, while making three right turns after passing through the intersection would result in more traffic). Conservatively assuming that half the traffic would pass through the intersection and turn right-right-right, while half would pass through the intersection and turn left-left-right, results in a v/c ratio of 0.82 and LOS C.

To the extent that traffic turns prior to the intersection, operations would improve. Traffic volumes on other downtown streets—including some residential streets—would increase as result of the turn prohibitions, but on-street parking could be retained on Main and Molalla. Implementation of the preferred option will require increased directional signage.

ODOT will need to revisit this preferred option when the signal at OR 211/Main and Molalla is warranted. When the project is built, there will be a public discussion about how best to address traffic impacts.

Figure 8.7: Preferred intersection concept for Main/Molalla

Other Intersection Improvements

Highway 211/Highway 213.

Providing right-turn overlap phasing (i.e., right turns move at the same time the corresponding left turn moves) would produce a year 2027 v/c ratio of 0.89, which is within ODOT standards. Further improvement would require additional lanes (e.g., dual westbound left-turn lanes produce a v/c ratio of 0.79) or the replacement of the traffic signal with a roundabout.

Highway 211/Ridings Avenue.

If Ridings Avenue is developed to the south as a collector street, the Highway 211/Ridings Avenue intersection could require signalization in the future. Installing new traffic signals on state highways requires a detailed engineering study and the approval of the State Traffic Engineer.

Highway 211/Thelander Avenue.

If the area north of Highway 211 and west of the former railroad right-of-way is developed as big-box commercial, the site access would likely require signalization. A preferred location to install a traffic signal would be opposite a public street service the Timber Town area; for example, Thelander Avenue. Installing new traffic signals on state highways requires a detailed engineering study and the approval of the State Traffic Engineer.

9. IMPLEMENTATION STRATEGY

This section includes strategies to implement the Downtown Molalla and OR 211 Streetscape Plan. The City of Molalla will need to take several steps to update plans and codes and meet the Oregon land use planning requirements, including Goal 9 (Economic Development), Goal 11 (Public Facilities), Goal 12 (Transportation) and Goal 14 (Urbanization). Funding to implement the plan will need to come from a variety of sources, including city, local, state, and federal funds and grants. Improvements also can be made as properties redevelop, development fees and charges are assessed, and City and County transportation budgets are approved.

Plan improvements are likely to be made as changes in land use occur, as properties redevelop and as sufficient funds are available to construct improvements downtown and in meaningful-sized areas of the corridor. This could be achieved through a fee-in-lieu program rather than piece-meal improvements constructed concurrently with redevelopment. A number of factors will need to be considered as specific improvements are implemented:

- Consistency with the recommended Vision, Guiding Principles, and Plan
- Maintenance needs
- Transit facilities
- Coordination with Clackamas County, ODOT, other service providers, and property owners for improvements on OR 211 and local streets
- Roadway projects should be designed to address current standards and conditions (e.g. ODOT and City standards may evolve, as may traffic conditions before projects are actually designed/constructed)

Enforcement of Plan guidelines and parking strategies also will be central for successful implementation. The DOTF also wishes to note that the City should continue, in the near term, to identify what a “fair” public/private implementation strategy means - i.e. one that balances economic development and other livability goals.

Updating Local Plans and Codes

The City will need to update its Comprehensive Plan, Zoning Code, Transportation System Plan (TSP) and Capital Improvement Plan (CIP) to reflect Plan recommendations. The City will need to ensure that its recent Goal 9 Economic Opportunities Analysis sufficiently reflects changes recommended in this plan for employment and industrial lands. The City will need to revise the zoning code before the new Comprehensive Plan map implementing the Downtown Plan can be adopted.

City staff and the DOTF recommends the Molalla City Council accept the Plan, but delay formal adoption until the above requirements have been completed. The OR 211 Streetscape elements should be adopted into the TSP as soon as possible as these changes are justified by the existing Comprehensive Plan. Updating the TSP earlier will allow the City to require improvements and dedications if development is proposed on the highway before the Comprehensive Plan is fully updated.

Streetscape Project Descriptions, Costs, and Funding Sources

Planning-level cost estimates, potential funding sources, responsible agencies, and implementation timeframes for the elements in the recommended Downtown and OR 211 Streetscape Concepts are included in Table 1 and described in more detail in the following text.

The following table shows planning level cost estimates in 2007 dollars. A 40% contingency has been included in the construction cost estimates to give flexibility for unknown factors that may come up during preliminary and final design. These estimates include engineering design fees, but do not include right-of-way costs, potential environmental permitting or utility relocation costs, nor do they account for structural engineering of proposed bridges. Costs will need to be refined before programming into the Capital Improvement Plan or the Statewide Transportation Improvement Plan.

Preliminary Cost Estimates for All Major Elements Not Included in the TSP

PROJECT ELEMENTS/ ACTIONS	COST ESTIMATE	LEAD AGENCY	POTENTIAL FUNDING SOURCES[1]	IMPLEMENTATION TIME SPAN / PRIORITY (IN YEARS)
OR 211 Streetscape				
Downtown Pedestrian District / STA	Ultimate Preferred Cross Section: $2,597,400 Option 1: $2,107,200	ODOT City	ODOT City SDC Developers contribute fee in lieu prior to ODOT Downtown improvement project. Developers dedicate ROW to ultimate cross section TEAM (streetscape)	6-10 for ODOT project 6-20 to meet 10' sidewalk standard
OR 211 Corridor	$19,857,900	ODOT City	ODOT City SDC Developers dedicate ROW, construct half-street improvements prior to complete project. City / Business Owners / TEAM: Gateway signage[2]	6-10
Irrigation Corridor-wide	$285,000	ODOT City	ODOT (installation) SDC Developer	6-10
Underground Utilities along OR 211	Unknown	City ODOT	City Urban Renewal District Utility Companies	6-20
Downtown Streetscape Improvements - Existing Streets				
Sidewalks	$10,382,700	City	SDC Developer TEAM State and Federal grants Safe Routes to Schools (SR2S)	6-20
Crosswalks and Curb Extensions	$99,700	City	SDC Developer TEAM State and Federal grants SR2S	6-10
Irrigation / Maintenance	$7,500	City	SDC	6-20
Downtown Land Use/Transportation Concept - New Streets and Trail				
Trail on RR Line	$364,700[3]	City	SDC Developer State and Federal grants	6-10
Ross between Center & Grange	$320,000	City	SDC Developer	11-20
Leroy between Lowe & Main	$529,000	City	SDC Developer	6-10
Hoyt between Molalla & Grange	$644,000	City	SDC Developer	6-10

FIgure 9.1: Preliminary Cost Estimates for All Major Elements Not Included in TSP

PROJECT ELEMENTS/ ACTIONS	COST ESTIMATE	LEAD AGENCY	POTENTIAL FUNDING SOURCES[1]	IMPLEMENTATION TIME SPAN / PRIORITY (IN YEARS)
Hart between Forest Rd & 7th	$876,000[4]	City	SDC Developer	6-10
Hoyt between Dixon & Kennel	$886,000	City	SDC Developer	6-10
Dixon	$890,000	City	SDC Developer	6-10
Heintz	$688,000	City	SDC Developer	6-10
3rd	$1,090,000	City	SDC Developer (TTCPA)	1-5
5th	$1,456,000	City	SDC Developer (TTCPA)	1-5
7th	$977,000	City	SDC Developer (TTCPA)	1-5
Ridings	$3,052,000[4]	City	SDC Developer (TTCPA)	1-5
Thelander/Pegasus	$3,235,000[4]	City	SDC Developer (TTCPA)	1-5
New Road East of Center	$802,000	City	SDC Developer	6-10
New Road North of Main	$647,000	City	SDC Developer	6-10
New Road East of Molalla	$789,000	City	SDC Developer	6-10
Realign Intersections[5]				
Hart/Kennel Realignment	$511,000	City	SDC Developer	11-20
Berkley/Grange Realignment	$315,000	City	SDC Developer	11-20
Main/Molalla Intersection				
Signal	$270,000	ODOT	ODOT City SDC Developer	6-10
Signage	$10,000	ODOT City	ODOT SDC	11-20
Other OR 211 Intersection Improvements				
OR 211/Ridings (signal)	$200,000	ODOT	ODOT City SDC Developer	6-10

PROJECT ELEMENTS/ ACTIONS	COST ESTIMATE	LEAD AGENCY	POTENTIAL FUNDING SOURCES[1]	IMPLEMENTATION TIME SPAN / PRIORITY (IN YEARS)
OR 211 / OR 213 (Phasing/ Widening)	$450,000	ODOT	ODOT City SDC City Urban Renewal Developer	11-20
Thelander (signal)	$200,000	ODOT	ODOT City SDC Developer	6-10
Molalla Forest Road - Main to Mathais				
Molalla Forest Road from Mathias to Main	$7,250,000	City	City SDC City Urban Renewal Developer State or Federal Grants	5-20
Mathias Road / Main Intersection	$680,000	City	SDC Developer City Urban Renewal ODOT	11-20
Mathias Road Widening	$2,200,000	City	SDC Developer City Urban Renewal	11-20
Molalla Forest Road / Main Street Intersection	$260,000	City	SDC Developer City Urban Renewal ODOT	11-20
OR 211 Widening west of the Molalla Forest Road / Main Intersection	$320,000	City	SDC City Urban Renewal Developer ODOT	11-20

1. See list of Potential Funding Sources in the Appendix for specific funding sources.

2. An estimate of $3,000 each for a sample gateway sign is included in the estimate; specific cost will need to be determined with design.

3. Preliminary cost estimate. As part of the Park, Recreation and Trails master plan, the City of Molalla will be developing specific trail design guidelines and developing a more detailed cost estimate in 2007.

4. Does not include cost of bridge over Bear Creek.

5. These are planning-level cost construction estimates for the infrastructure improvements needed to realign the intersections, but do not include the cost of real estate for needed ROW.

OR 211 Streetscape Plan

The City will need to update both the TSP and the CIP to include the preferred options for OR 211.

Downtown District.

The designation of the Downtown District section of OR 211 as a Special Transportation Area (STA) was explored during this process. Meeting the criteria for an STA designation does not automatically give a roadway section that status: the local jurisdiction must identify its desire to designate the road section as an STA in an adopted plan (such as this Downtown / OR 211 Plan), and then work with ODOT to finalize the limits of the designation. In some cases, a management plan for the affected section of highway may need to be developed. The final step in the process is for the Oregon Highway Commission to adopt the new designations and amend the Oregon Highway Plan map of STAs accordingly.

Given current ROW constraints and locations of existing buildings, the preferred Downtown District cross section for OR 211 cannot be achieved without significant ROW acquisition and building renovation and/or demolition. As redevelopment occurs, the City should require ROW dedication in order to achieve the desired ROW to enable eventual construction of the preferred cross section.

Realizing that the preferred cross section may not be achievable before OR 211 is rebuilt, two interim options were considered for the Downtown District/STA Zone section of the OR 211 Streetscape Plan. The DOTF voted on these two options and decided on Option 1 by a slight majority; however, additional public process will occur during engineering for any OR 211 improvements. While the DOTF recommends the ultimate, preferred cross section (described in the Streetscape Plan section of this document), and Option 1 for the near term, both are included in the plan so that the City may revisit this issue when they update their TSP. Both options require the adjacent development to provide street improvements with redevelopment if the ODOT project has already occurred before sufficient ROW could be dedicated to meet the 10-foot sidewalk standard.

- *Option 1: One parking lane, wide sidewalks (58' – 60' ROW)*. This option includes 10 foot sidewalks, bike lanes, two travel lanes and one lane of parking. It creates enough space for street trees and other pedestrian amenities, but will remove one row of parking in the STA zone. One to two feet of ROW will need to be dedicated to each side of the street as adjacent properties redevelop in order to meet the 10' ODOT sidewalk standard. The cost estimate includes bike racks, street trees/shrubs, planting strips, benches, trash cans and pedestrian-scale lighting as well as the basic construction elements (sidewalks, curb extensions, repaving, pavement markings, etc.). As Option 1 includes removal of parking on one side of Main Street, the DOTF recommends that a parking strategy be implemented before Option 1

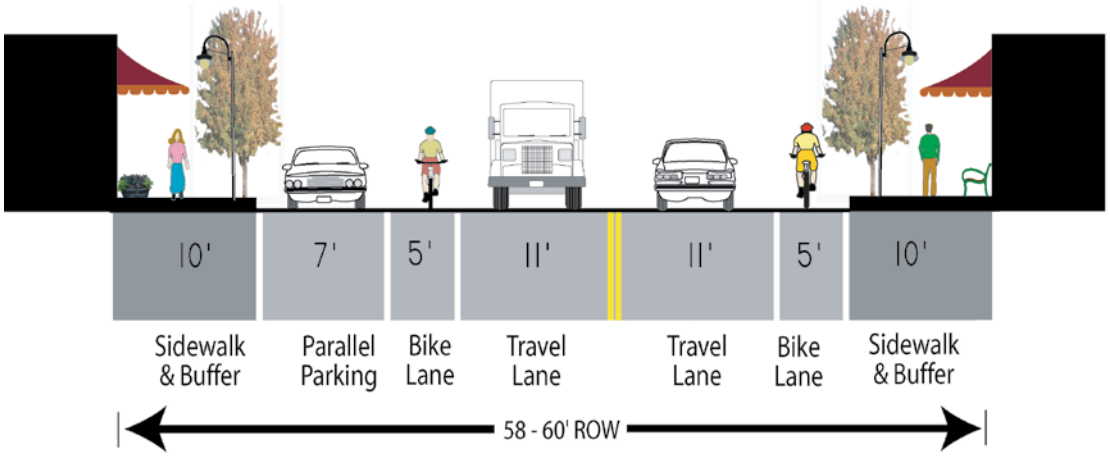

Figure 9.1: OR 211 Downtown District Option 1

is constructed. This option would set the curbline at a narrower width than would accommodate the ultimate, preferred cross section. Thus, this option would result in a much greater overall cost should the City decide to implement the ultimate, preferred cross section in the future.

- *Option 2: two parking lanes, narrow sidewalks (59' ROW now, 66' ROW in future)*. This option includes 6-7 foot sidewalks, bike lanes, two travel lanes and two lanes of parking. It retains parking in the STA zone. Three to four feet of ROW will need to be dedicated to each side of the street as adjacent properties redevelop in order to meet the 10' ODOT sidewalk standard. When sidewalks reach the 10 foot standard, there will be enough space for street trees and other pedestrian amenities, but the interim, narrower sidewalk would preclude some amenities, such as trees.

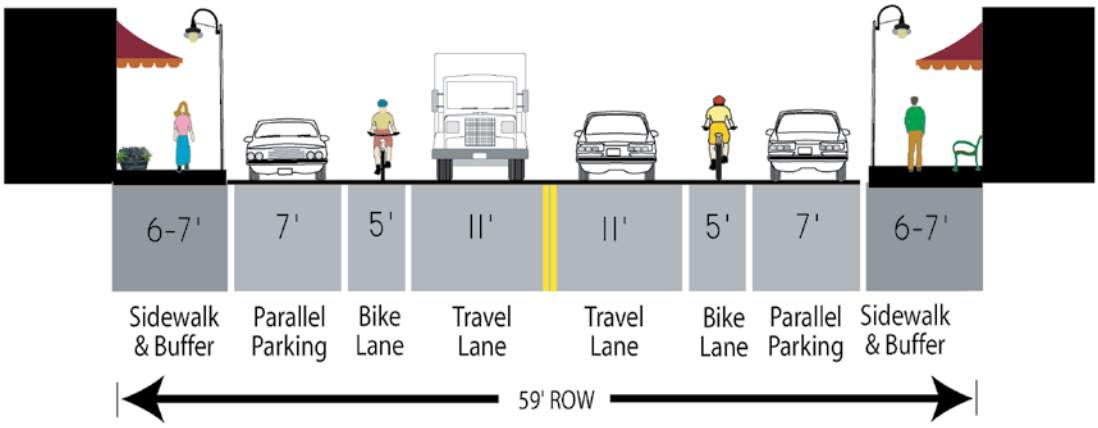

Figure 9.2: OR 211 Downtown District Option 2

It should be noted that the Streetscape Plan for OR 211 depicts pedestrian-scale lights within the Downtown District. The installation and maintenance of such fixtures would be the responsibility of the City (funded through SDCs and/or urban renewal).

OR 211 Corridor

It is anticipated that repaving of OR 211 will be completed by ODOT within 6-10 years. The extent of additional streetscape improvements will depend upon the availability of State and local funding. Developers will be required to dedicate ROW and provide 1/2-street improvements for development which occurs prior to the public project. The cost estimate includes a landscaped median, street trees/shrubs, planting strips, lighting, two basic gateway signs, as well as sidewalks, repaving, pavement markings, etc. If the city decides to underground utilities, they will need to collect SDCs/designate an Urban Renewal District to pay for the difference between moving the utilities and undergrounding them. The utility company will pay for the regular cost of moving them with the ODOT project. Funding would need to be available before ODOT does the reconstruction project.

Downtown Streetscape Plan

Update both the TSP and the CIP to include the preferred option for the Downtown Streetscape, including sidewalks, crosswalks, curb extensions and curb ramps at specified locations. Require specifics with redevelopment (e.g., ROW dedication and 1/2 street improvements) as shown for streets in the Downtown Study Area: lane widths, turning lanes, sidewalk widths, buffers, pedestrian clear zones, furnishing zone, curbs, street trees, planting strips, lighting, etc. The more costly items in this project (sidewalks, curb extensions) depend upon fees and improvements that will occur as properties redevelop, so the likely implementation time span is somewhere between 6 and 20 years. Less expensive elements (crosswalk striping and curb ramps) could occur sooner (between 1-5 and 6-10 years respectively). Funding for the Downtown Streetscape Plan will come from a combination of SDCs, state and federal grants for pedestrian improvement projects and possibly Safe Routes to Schools (SR2S) funds.

Downtown Land Use/Transportation Concept

- **Land Use**. Update the Comprehensive Plan and Zoning Code to include the recommended land uses shown on the Recommended Downtown Land Use and Transportation Concept.
- **Transportation Connections**. Acquire right-of-way and require construction of the following new connections as properties redevelop in the Downtown Study Area to the street standards for functional classifications shown on the Preferred Downtown Land Use and Transportation Concept:
    - *Ross between Center and Grange*
    - *Leroy: Lowe to Main*
    - *Hoyt between. Molalla and Grange*
    - *Hart between Forest Rd and 7th*
    - *Hoyt between Dixon and Kennel*
    - *Dixon*
    - *Heintz*
    - *3rd*
    - *5th*
    - *7th*
    - *Ridings*
    - *Thelander/Pegasus*
    - *New Road East of Center*
    - *New Road North of Main*

- *New Road East of Molalla*
- *Trail on railroad line*: Build a multi-use trail along the abandoned railroad line that runs north to south through the Downtown Study Area. The estimate shown in Table 1 is a preliminary planning-level cost estimate. As part of the Park, Recreation and Trails Master Planning process to be completed in 2007, the City of Molalla will be developing specific trail design guidelines and length and is developing a more detailed cost estimate. In light of this process, the City should coordinate update of the TSP with the adoption of the Park, Recreation and Trails Master Plan. The design standards for the trail and considerations for appropriate SDCs for the trail's development/contribution of the developer to the trail construction should be included in the TTCPA Overlay Zone requirements in the updated Zoning Code and Comprehensive Plan. Funding for the trail will come from a combination of SDCs and state and federal grants for trail, bike and/or pedestrian improvement projects (see List of Funding Sources in Appendix).

All new connections in the Downtown Study area are likely to be built within the longer term: 11-20 years. However, connections within the TTCPA Overlay Zone—3rd, 5th, 7th, Thelander, Ridings and the trail—may be built sooner as required with redevelopment.

- **Realign Intersections On OR 211**. Realign the intersections at Hart/Kennel and Berkely/Grange along OR 211 so that they function more smoothly. Cost estimates for these two projects (Table 1) are at the planning-level for infrastructure improvements only and do not include the cost of real estate to purchase the needed ROW. As the ROW acquisition costs will likely be quite large, this will need to be taken into account when accumulating funding for the projects (through SDCs or other). The city will be responsible for implementing and funding this project and is likely to occur in the long term, within 11 to 20 years.

OR 211/Main Street and Molalla Avenue Intersection

Signalization will occur when signal "warrants" have been met. Funding for signalization may be derived from ODOT, SDCs, or developers depending on the timing. When it becomes necessary in order to improve traffic flow to acceptable standards, implement the preferred option for the intersection of OR 211/Main Street and Molalla Avenue to prohibit left turns at peak times (this is likely to occur sometime in the next 6-20 years). Increased directional signage will need to be added to direct traffic to obey the new rule. The City may request that ODOT perform a signal warrant analysis.

Other Intersection Improvements

Note: Approval from the ODOT State Traffic Engineer is required for installation of traffic signals or changes in traffic controls on State Highways. A detailed engineering study will be required for any of the proposed intersection improvements described below.

Highway 211/Ridings Avenue

If Ridings Avenue is developed to the south as a collector street, the Highway 211/Ridings Avenue intersection could require signalization in the future. Installing new traffic signals on state highways requires a detailed engineering study and the approval of the State Traffic Engineer. Implementation of signal at Ridings could occur within 6-10 years and will likely be triggered by development.

Highway 211/Highway 213

Providing right-turn overlap phasing (i.e., right turns move at the same time the corresponding left turn moves) would produce a year 2027 v/c ratio of 0.89, which is within ODOT standards. Further improvement would require additional lanes (e.g., dual westbound left-turn lanes produce a v/c ratio of 0.79) or the replacement of the traffic signal with a roundabout. However, because a roundabout would require a circular area approximately 120 feet in diameter in order to accommodate truck traffic, intersection widening and signalization phasing is likely more feasible from a right-of-way acquisition and terrain perspective. Implementation is likely within 11-20 years. ODOT will be responsible for the signal-phasing. The city and ODOT will need to work together to make the other necessary improvements. Funding sources include dedication of ROW to widen the road, SDCs and STIP funds.

Highway 211/Thelander Avenue

If the area north of Highway 211 and west of the former railroad right-of-way is developed as big-box commercial, the site access would likely require signalization. A preferred location to install a traffic signal would be opposite a public street service the Timber Town area; for example, Thelander Avenue. Installing new traffic signals on state highways requires a detailed engineering study and the approval of the State Traffic Engineer. Implementation of a signal at Thelander could occur within 6-10 years, and will be triggered by development of the area mentioned above.

10. RECOMMENDATIONS

This section identifies recommended updates to the existing City of Molalla Comprehensive Plan and map, Zoning Code and map, Transportation System Plan (TSP), Capital Improvement Plan (CIP), and Engineering Standards necessary to implement the Downtown/OR 211 Streetscape Plan. Several of these recommendations may already be addressed in the proposed updates to the City's Comprehensive Plan and Zoning Code

Recommended Comprehensive Plan Changes

Implement the Downtown/OR 211 Streetscape Plan by adding the following to the Comprehensive Plan:

- Add Statewide Planning Goal 6: Preserve Air, Land and Water Quality as a relevant statewide land use planning goal to this list. This goal is relevant to transportation (air quality), land use and park/recreation changes to the Comprehensive Plan, Zoning Code and TSP.
- Strengthen the City of Molalla's business community by implementing a mixed-use Central Business District (CBD) that concentrates pedestrian-oriented commercial/retail uses within a district that is easily walkable. Allow residential uses in the Central Business District and high density residential nearby to allow for sufficient local population to support the CBD.
- Allow limited commercial uses in the High Density Residential zone.
- Change the C-2 Commercial zone to a General Commercial zone that is pedestrian-oriented in design, rather than primarily auto-oriented.
- Implement design standards for all buildings which are intended to promote attention to detail, human-scale design and street visibility, while affording flexibility to use a variety of building styles.
- Create an Employment zone. Employment zones allow a wide range of employment opportunities without potential conflicts from interspersed residential uses. The emphasis of the zone is on employment and employment-related uses. Other commercial uses are allowed to support a wide range of services and employment opportunities. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial/commercial areas.

  The Employment zone will generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. Uses allowed outright in this zone could include:

  - Office
  - Parks and open areas
  - Schools
  - Colleges
  - Medical Centers
  - Religious Institutions
  - Day Care
  - Agriculture
  - Rail Lines and Utility Corridors
  - Community Service
  - Basic Utilities
- Require that uses over a certain square footage (~30,000sf) and/or generate excessive traffic go through a conditional use and design review process to ensure that traffic and other potential off-site impacts are

mitigated and that design quality is consistent with goals for Downtown.

- Improve pedestrian circulation and safety by requiring sidewalk improvements with redevelopment and enforcing maintenance of pedestrian facilities.
- Implement a "Recreation Concept" and preserve open space by encouraging development of a multi-use trail along the rail line, dedicating easements in the riparian area along Bear Creek, and requiring dedication of land for new parks to be built as needed in Downtown Study Area (more to come in the Park, Recreation and Trail Master Plan).
- Encourage infill redevelopment.

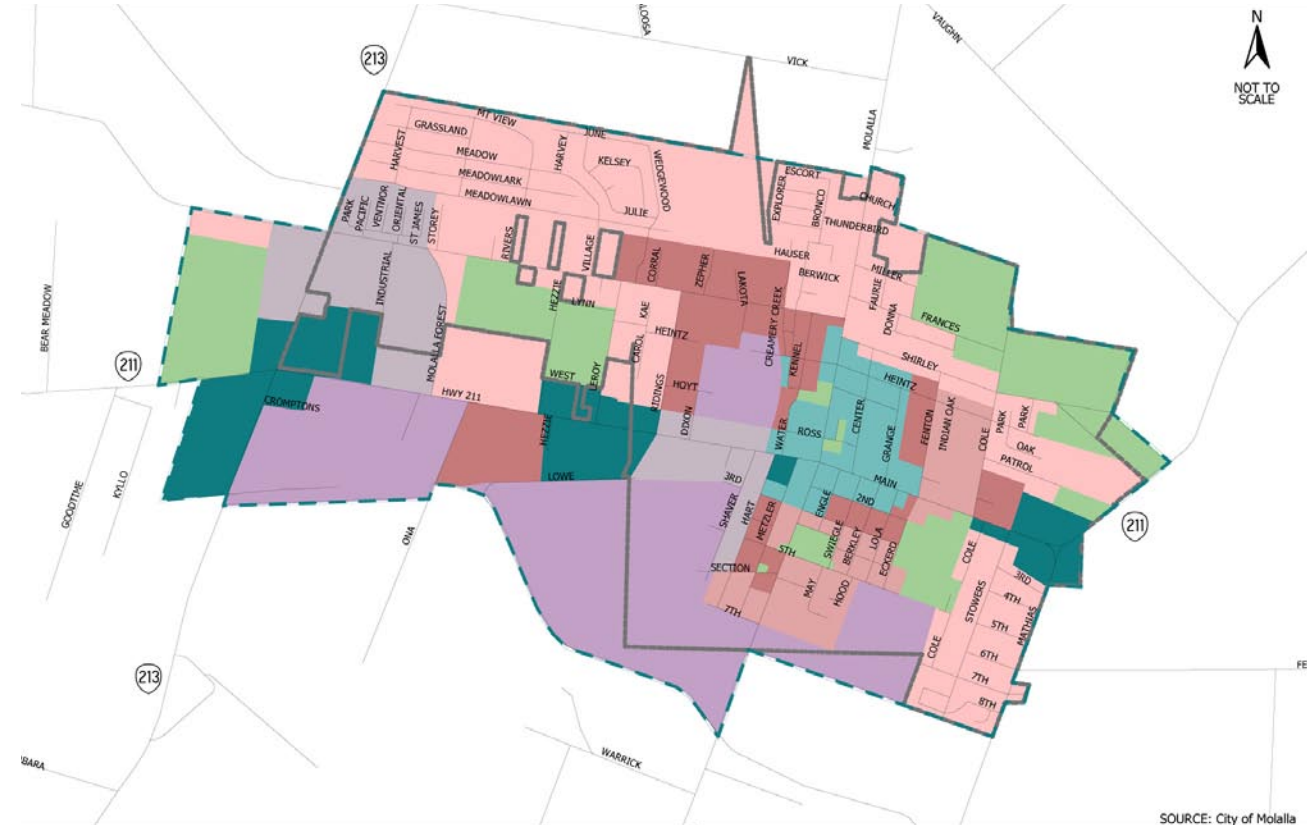

Figure 10.1: Existing Comprehensive Plan Map

Recommended Zoning Code Changes

Land Use

Make updates to the City of Molalla Zoning Code as follows.

For all land uses in the Downtown Study area:

- Setbacks: Where necessary, require adequate setbacks to allow for both new streets and desired cross sections for existing streets.
- Building orientation: Require buildings to front OR 211 and streets within the CBD as properties redevelop.
    - **Purpose**. The following standards are intended to orient buildings close to streets to promote pedestrian-oriented development where walking is encouraged, and to discourage automobile-oriented development. Placing residences and other buildings close to the street also encourages crime prevention, natural surveillance or security, and safety by having more "eyes-on-the-street."[1]
- Architectural design standards or guidelines to ensure high-quality pedestrian experience and architectural character: may require administrative and design review procedures (CBD and GC, other):
    - **Purpose**. The architectural design standards require a minimum level of design on every building, which is intended to promote attention to detail, human-scale design and street visibility, while affording flexibility to use a variety of building styles.[2]

Specific changes to land use designations:

- Add Employment designation (See TGM Model Code for Small Cities) to allow for office, sports or medical uses, but not commercial/retail.

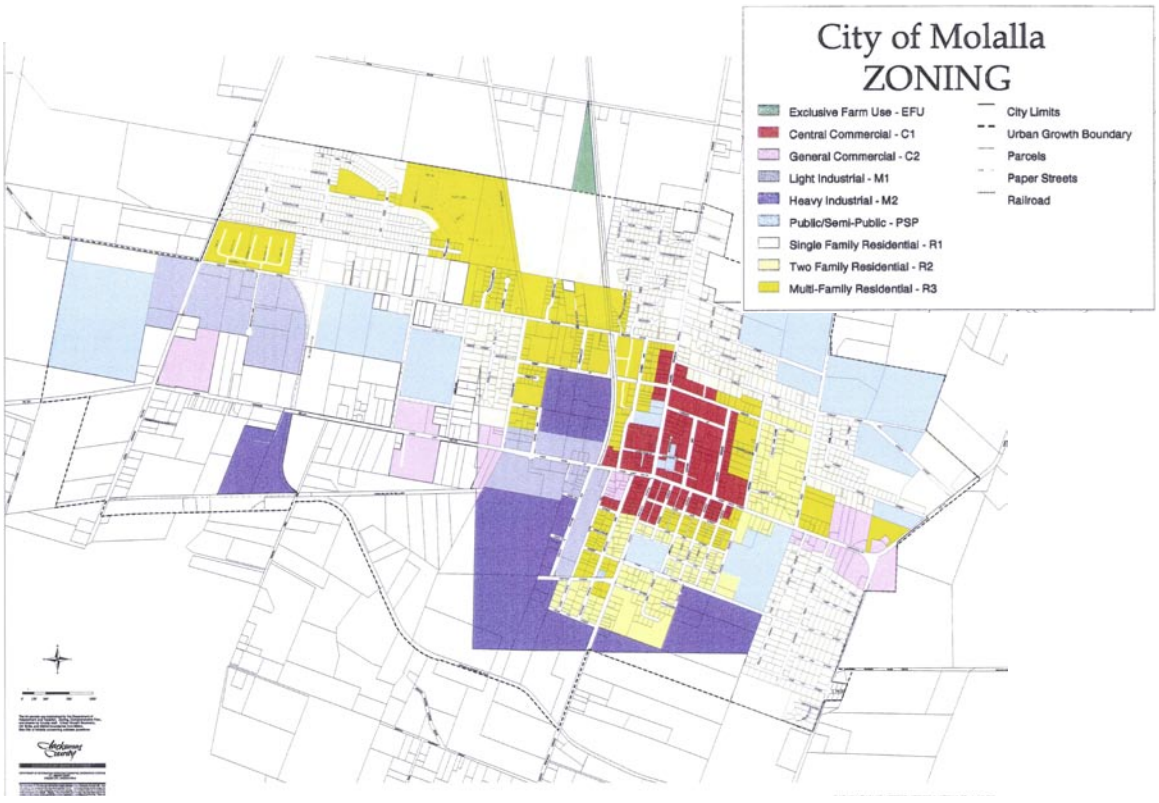

Figure 10.2: Current Zoning Map

Commercial

- Change Central Commercial (C-1) to Central Business District (CBD) designation (See Downtown/Main Street Commercial section in TGM Model Code for Small Cities): allow 100% lot coverage (current code shows 80%), no minimum lot size, no minimum setbacks. Allow residential above ground floor. Strong pedestrian orientation. Zero setbacks and build-to lines, as provided in Table 2.3.120 in the current code, are intended to encourage pedestrian-oriented development, while providing more flexibility in site design than what is possible with large setbacks. With buildings placed close to the street, a development can provide good access for emergency service providers in the case of a fire or other emergency. Where no minimum setback is required, all structures and buildings shall conform to vision clearance standards in and the applicable fire and building codes (e.g., for attached structures, fire walls, and related requirements).[3]
- Change C-2 to General Commercial: strong pedestrian orientation (C-2 is shown as primarily auto-oriented). Specifically, buildings shall be oriented to the street with parking on side or in rear. 10,000 sf+ lot size. Allow 100% lot coverage.
- Landscaping requirements for CBD and General Commercial follow:

Min. Landscape Area (% site area), except does not apply to Single Family Dwellings. Landscape area may include plant areas and some non-plant/hardscape areas, as allowed under Section 3.2.300.D.	[5%]	[10%]
Source: Model Smart Development Code for Small Cities.		

Residential

- Change R-3 to High Density Mixed Use: Change R-3 to allow for limited commercial uses only on ground floor (as Residential Commercial designation in Model Code). 8-17 dwelling units per acre. No minimum setbacks, 100% lot coverage allowed. Allowed minimum and maximum lot area as follows:

Use	**Minimum - Maximum**
Single Family, not attached	4,000-5,000 sf
Single Family, attached	2,000-3,000 sf
Single Family, w/ accessory d.u.	5,000-5,500 sf
Duplex	5,000-6,000sf
Multiple Family or Cottage Cluster	6,000-9,000sf
Non-Residential Uses	6,000-9,000 sf
*Lot size may be reduced through *lot size averaging*. See related land division procedures in Chapter 4.3.115. Minimum lot sizes do not apply to open space tracts.	
Source: Model Smart Development Code for Small Cities.	

Table 10.1: Resiudential Zoning Recommendations

- Change R-2 to Medium Density Residential: Change minimum lot size from 6,300-7,500 sf (depending on use) to minimum 4,500 sf to maximum 5,500 sf., density 8-10 dwelling units per acre.
- R-1 or Low Density Residential: Change minimum lot size from 6,300 sf to 5,400 sf, maximum 7,300 sf.
- Setbacks for both Low and Medium Density Residential follow:

1. From Model Smart Development Code for Small Cities, Residential and Commercial Districts, Building Orientation.
2. From Model Smart Development Code for Small Cities, Residential and Commercial Districts, Architectural Design Standards
3. From Model Smart Development Code for Small Cities, Residential and Commercial Districts.

Front/Street Setback	Low Density	Medium Density Residential
Structure >16' height, except garages and carports	15ft	15ft
Entries	20ft	20ft
Structures </=16' height, except	15ft	15ft
Open Structures (e.g., porch, balcony, portico, patio, wall), where structure is less than 50% enclosed on side elevations	5ft	5ft
* Always avoid utility easements when building near property lines		
Source: Model Smart Development Code for Small Cities		

Table 10.2: Setback Recommendations

Parks/Open Space

- Require dedication of easements for parks, trails, open space and riparian areas with redevelopment throughout the Downtown Study area where needed as Park, Recreation and Trails Master Plan indicates.

Add TTCPA Overlay Zone

- Require Parks/Open Space easement dedication (regular and along railroad/Shaver and Bear Creek): acquire easements along stream corridors to develop riparian buffer protection and trail network.
- Ensure connectivity through new subdivision: connect streets as recommended in plan. The pedestrian walkway system shall extend throughout the development site and connect to all future phases of development, and to existing or planned off-site adjacent trails, public parks, and open space areas to the greatest extent practicable. The developer may also be required to connect or stub walkways to adjacent streets and to private property with a previously reserved public access easement for this purpose.[5]
- Require a maximum block size, space between intersections that allows for pedestrian access.
- Ensure access/circulation for all modes to standards shown under Access Management (pedestrian accessways where full streets are not possible).
- Only allow limited commercial development in the north, near OR 211.
- Residential allowed throughout.
- No commercial allowed along the Molalla Forest Road.
- Implement setback requirements in riparian areas (near Bear Creek).
- Follow all other development standards for allowed land uses.

Parking

- Shared parking/Fee in lieu: Provide a fee-in-lieu option for new developments. Developers would have the option of paying a fee to the City instead of building on-site parking. All fee revenue should be directed to a designated parking fund. Appropriate uses for fee-in-lieu revenue should be established prior to collecting any revenue.
    1. Establish a parking fund to the provision of public parking or other downtown economic development strategies (i.e., purchase land for parking, implement sidewalk improvements, etc.).
    2. Allowable improvement categories should be identified upon establishment of the parking fund. Identify parcels for potential future public parking facilities, as needed.
- Consider setting parking maximums and not requiring minimums or:

4, 5. Model Smart Development Code for Small Cities.

1. Allow reduction in minimums for transit amenities in parking areas
2. Allow reduction in minimums for pervious paving and landscaping/green stormwater management within parking areas
3. Allow reduction in minimums for shared parking facilities. The reductions should account for complementary demand profiles for different land uses (i.e., residential has peak demand in the evening, while offices have peak demand during the day). In addition, parking requirement reductions should account for "internally captured" trips that reduced the need for individuals to park multiple times for different activities (i.e., coffee shops located near office buildings typically have a high degree of internal capture).

Connectivity /Circulation

- Ensure connectivity through new subdivisions and with redevelopment build recommended connections. ROW dedication with redevelopment, street improvements required: Extend existing street network (3rd, 5th, 7th, Heintz and Ridings, etc.) to improve connectivity as the area develops.
- Require sidewalks with new development or redevelopment.
- Minimize the distance between intersections where possible to allow for pedestrian access.
- Pedestrian clear zone (ADA) minimum (make sure hydrants, utility poles, mailboxes, etc are not in walking area and do not interfere with access).
- Ensure curb ramps are built to ADA standards with redevelopment.
- Require sidewalks built to ODOT and City standards with redevelopment.
- Enforce sidewalk maintenance and require sidewalk repairs.
- Require adjacent property owners to maintain sidewalks, landscaping, and other streetscape features.

Landscaping

- Planting strips.
- Street Trees: require tree species and placement suitable for planting strips and available right-of-way.
- Adjacent property owners are required to maintain landscaping in the ROW between the curb and their property line.
- The City to be responsible for median landscaping.

City of Molalla Transportation System Plan

The City of Molalla's Transportation System Plan (TSP) serves as the transportation element of the local comprehensive plan. It establishes a system of facilities and services to meet long-range transportation needs with a focus on integrating transportation and land use. The TSP must be consistent with the OHP and other required plans. The Downtown/OR 211 Plan must be consistent with both the Molalla TSP and Clackamas County's Functional Classification Plan. The diagram below contains the recommended street classifications for the Downtown study area. (Note: Depending on the eventual plan and build-out of the TTCPA, the extensions of Thelander and Hart across Bear Creek may be unnecessary.)

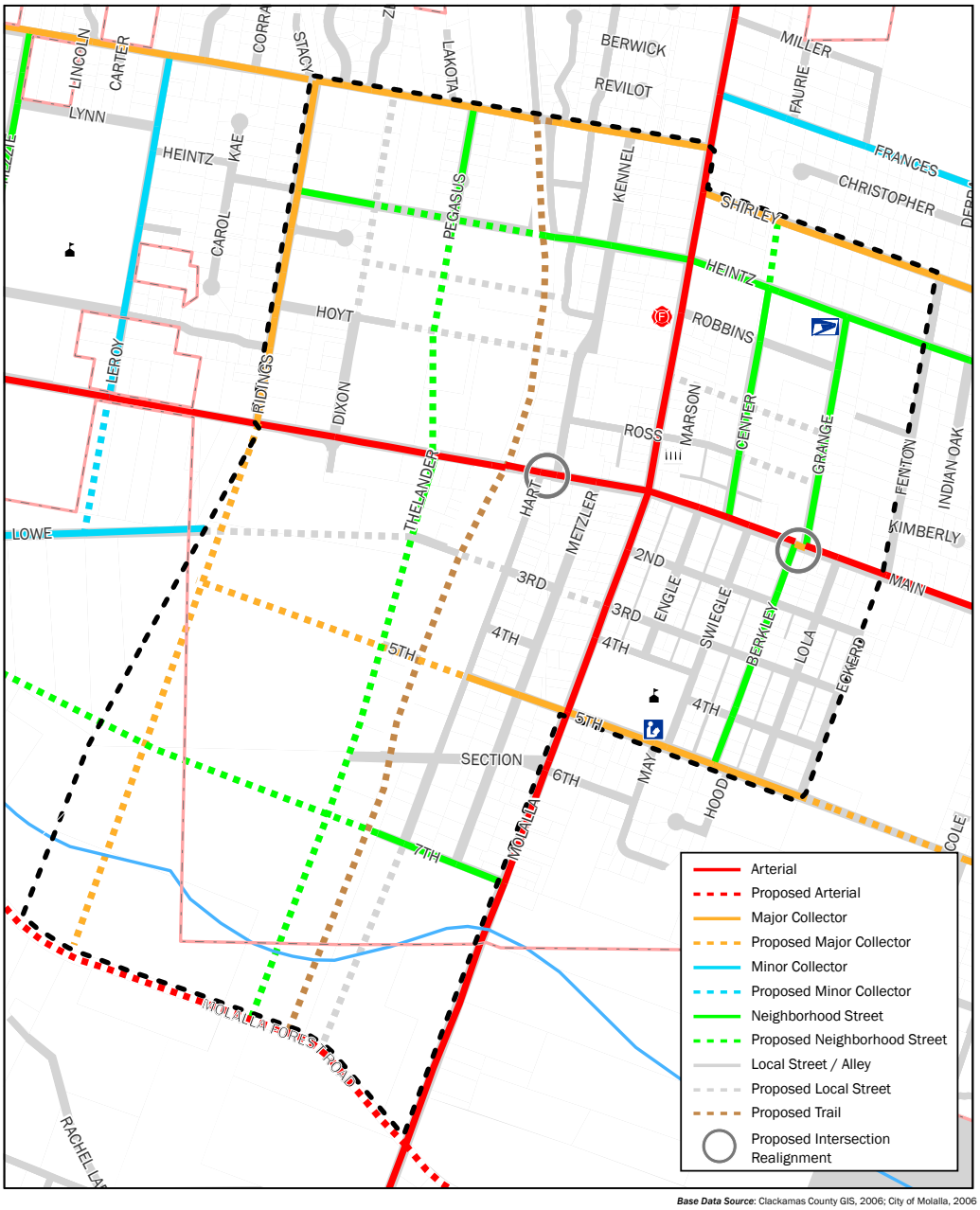

Figure 10.3: Preferred Downtown Transportation Concept

Street Design Standards for Downtown

Street design standards are used to establish the intended degree of access and circulation of each roadway class. Specific design standards are included in the city TSP. The TSP also sets forth general guidelines for the improvement of arterial/collector intersections. Changes to the street design standards necessary to implement the Downtown/OR 211 Streetscape plan follow:

- Require ROW dedication with redevelopment for new connections.
- Require specifics with redevelopment (e.g., 1/2 street improvements) as shown for Downtown (or require fee in lieu): lane widths, turning lanes, sidewalk widths, buffers, pedestrian clear zones, furnishing zone, curbs, street trees, planting strips, lighting, etc.
- Require crossover easements as redevelopment occurs to facilitate shared access between non-residential parcels.
- Property owners are required to maintain streetscape improvements (between the curb and their property) along their frontage.

OR 211 Improvements

Downtown District

1. Adopt the ultimate, preferred cross section into the City's TSP to guide future development.
2. Require dedication of right-of-way on each side of OR 211 in the Downtown STA area to allow for the needed 66' total ROW.
3. Require property owners to construct street improvements with redevelopment or fee in lieu.

OR 211 Corridor

1. Require dedication of ROW along OR 211 west of Downtown where necessary to allow for upgrades (widening of street) or fee in lieu.
2. Require property owners to construct street improvements with redevelopment or fee in lieu.
3. Underground utilities.

- At OR 211/Main Street and Molalla Avenue intersection: require dedication of ROW over time to allow for wider sidewalks, parking, bike lanes, etc. if desired.
- Property owners are required to maintain streetscape improvements (between the roadway edge and their property) adjacent to their property.

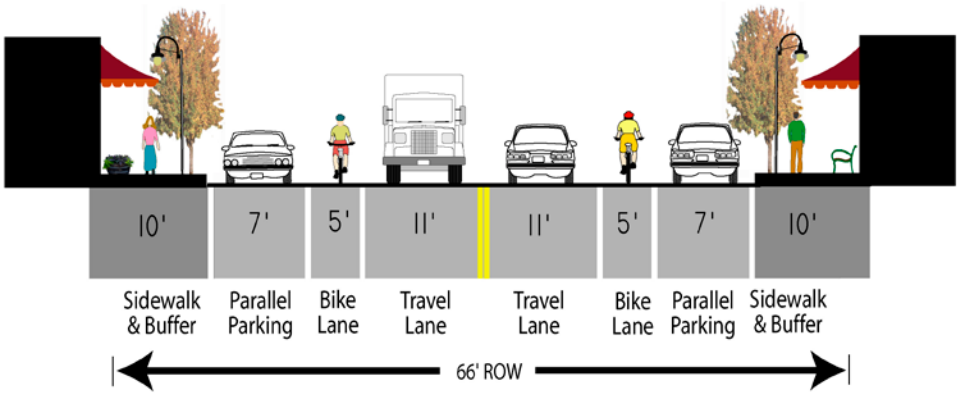

Figure 10.4: Ultimate Preferred Cross Section (Downtown District)

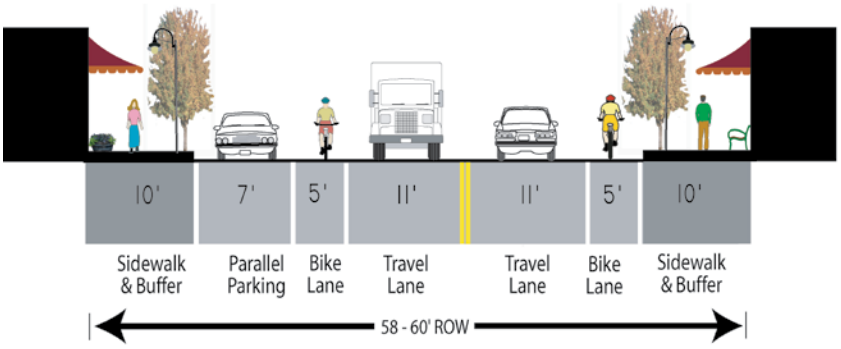

Figure 10.5: Option 1 Cross Section (Downtown District)

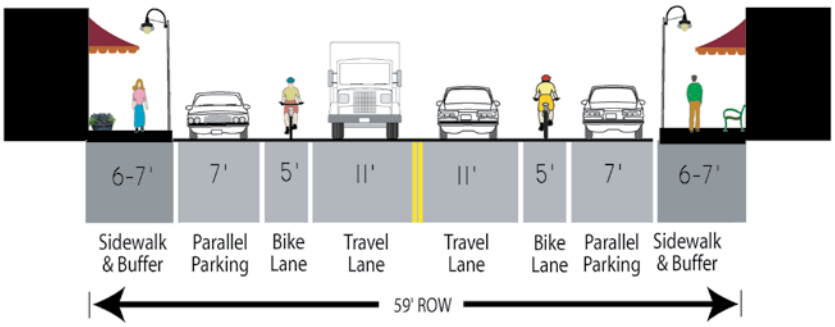

Figure 10.6: Option 2 Cross Section (Downtown District)

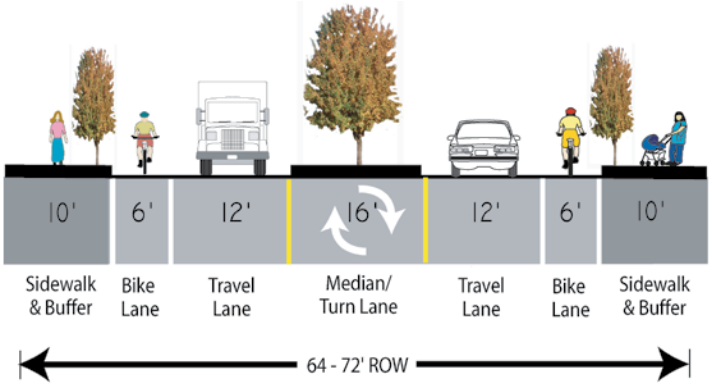

Figure 10.7: OR 211 Corridor Cross Section

Access Management Strategies

Access management is a tool used to preserve desired roadway access and circulation standards. The Oregon Highway Plan defines access management as a set of measures regulating access to streets, roads, and highways from public roads and private driveways. Spacing standards for access points are established based on the classification and posted speed of a roadway. ODOT has the authority to regulate access on Highway 211 and Highway 213, while the City of Molalla has authority over other roadways within its boundaries. Access standards for each roadway type are included in the Molalla TSP. Recommended changes to the TSP Access Management Strategies follow:

- Implement access management strategies for recommended STA areas
- Increase spacing between private approaches (driveways) by:
    - Consolidating driveways/curb cuts
    - Minimizing curb cut widths

An access management plan for OR 211 will be created in collaboration with ODOT at the time of OR 211 project implementation. If properties develop or redevelop, or if safety issues develop at an existing driveway, access also will be reviewed through the ODOT approach permitting process. An improved network of local streets would provide alternative access opportunities for properties fronting OR 211. Due to the recommended STA designation in Downtown Pedestrian Zone, change access spacing standard along OR 211 to the existing city block spacing. The minimum spacing for private access would be 175 feet, or mid-block when blocks are less than 350 feet long. (Note: parcels without alternate access would be permitted access to/from OR 211.)

Roadway Improvement Plan and Capital Improvement Plan

The City of Molalla's Roadway Improvement Plan identifies specific improvements needed to improve safety and accommodate future growth. Brief descriptions of projects that will need to be added to the TSP's Roadway Improvement Plan as well as the Capital Improvement Plan (CIP) to implement the Downtown/OR 211 Streetscape Plan follow.

- **Downtown Land Use/Transportation Concept.**
    - Acquire right-of-way and build the following new connections in the Downtown Study Area to the street standards for functional classification shown on the Preferred Downtown Land Use and Transportation Concept:
        - » Trail on railroad line
        - » Ross between Center and Grange
        - » Leroy: Lowe to Main
        - » Hoyt between. Molalla and Grange
        - » Hart between Forest Rd and 7th
        - » Hoyt between Dixon and Kennel
        - » Dixon
        - » Heintz
        - » 3rd
        - » 5th
        - » 7th

        - » Ridings
        - » Thelander/Pegasus
        - » New Road East of Center
        - » New Road North of Main
        - » New Road East of Molalla
    - ○ Realign the following intersections so that they function more smoothly:
        - » Hart/Kennel
        - » Berkley/Grange

- Downtown Streetscape Plan. Update both the TSP and the CIP to include the preferred option for the Downtown Streetscape, including sidewalks, crosswalks, curb extensions and curb ramps at specified locations.
- OR 211 Streetscape Plan. Update both the TSP and the CIP to include the preferred option for OR 211.
    - ○ Downtown Pedestrian Zone.
    - ○ OR 211 Corridor.
- OR 211/Main Street and Molalla Avenue Intersection Improvements. Update both the TSP and the CIP to include the preferred option for the intersection at OR 211/Main Street and Molalla Avenue. This option will require implementation of increased directional signage as well as a signal.
- Other Intersection Improvements.
    - ○ *Highway 211/Highway 213*. Providing right-turn overlap phasing (i.e., right turns move at the same time the corresponding left turn moves) would produce a year 2027 v/c ratio of 0.89, which is within ODOT standards. Further improvement would require additional lanes (e.g., dual westbound left-turn lanes produce a v/c ratio of 0.79) or the replacement of the traffic signal with a roundabout.
    - ○ *Highway 211/Ridings Avenue*. If Ridings Avenue is developed to the south as a collector street, the Highway 211/Ridings Avenue intersection could require signalization in the future. Installing new traffic signals on state highways requires a detailed engineering study and the approval of the State Traffic Engineer.
    - ○ *Highway 211/Thelander/Pegaus*. If Thelander/Pegasus is developed as a Neighborhood Street north and south of OR 211, the intersection with 211 could require signalization in the future. Installing new traffic signals on state highways requires a detailed engineering study and the approval of the State Traffic Engineer.

APPENDICES

JOHNSON GARDNER

Memorandum

DATE: October 25, 2006

TO: Gene Green
CITY OF MOLALLA
Kirstin Greene
COGAN OWENS COGAN

FROM: Jerry Johnson
JOHNSON GARDNER, LLC

SUBJECT: Technical Memo #1: Market Analysis for Downtown Molalla

The focus of this memorandum is on outlining community needs as well as current and anticipated market conditions impacting viable development forms in the study area. The market for a range of prospective product types will substantively impact the Molalla Downtown Development and Streetscape planning efforts. The City of Molalla has recently completed a series of evaluations of its economic profile, business needs and the downtown retail market. This memorandum incorporates information from the following studies, supplemented with updated and additional market data:

- *Molalla Economic Profile, May 4, 2005, E.D. Hovee & Company, LLC*
- *Molalla Business Survey Review, January 11, 2006, E.D. Hovee & Company, LLC*
- *Downtown Retail Market Analysis, August 2006, Marketek, Inc.*

I. CONCLUSIONS

The City of Molalla has only a limited quantity of vacant land within the downtown study area. The area has largely been built-out, and new development opportunities will be limited to development/redevelopment on individual small or large sites, or on assembled parcels. Sites of limited scale present a number of development challenges, as do redevelopment sites.

The metropolitan area economy has been enjoying a period of substantial employment growth. Trends in the commercial and industrial markets also indicate better than reported rates of growth or greater optimism for future space needs. Population growth held steady during the recent economic decline in the Portland metropolitan area, and the recent employment growth indicates that the level of growth can be sustained.

Population growth in the Portland metropolitan area has been shifting away from Multnomah County and towards the more suburban areas. Clackamas County has lagged behind both Washington and Clark Counties in terms of population growth rate over the last decade, but increasing land scarcity in Washington County is expected to drive a greater share of metropolitan area demand to Clackamas County over the next decade. Rising housing costs in with the Portland metropolitan area's Urban Growth Boundary (UGB) have led to an increasing number of households

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employed in the area to seek housing in more rural communities and small cities such as Molalla on the periphery.

The City of Molalla's population base grew at an average annual rate of 4.5% from 1990 through 2000, more than twice the rate of growth for Clackamas County. Following relatively slow growth from 2000 through 2003, the City has seen growth accelerate in 2004 and 2005. While Happy Valley has been the County's fastest growing community over the last several years, land constraints are expected to shift an increasing share of demand to communities such as Molalla outside of Metro's UGB. Families with children have accounted for much of the growth in the City. The growth in families is likely attributable to the area's relative affordability as well as a quality school system.

The City of Molalla's population projections anticipate an average annual rate of growth of 2.9% through 2025, increasing the population to just under 11,000 and number of household to 3,830. Based on recent trends, this forecast appears to be well within reasonable expectations. The City's share of Clackamas County's overall population would shift from 1.7% in 2000 to 3.1% in 2025.

The retail market is currently sound in the Molalla area, with significant levels of leakage to the Portland metropolitan area. Retail is an area of obvious opportunity in the Molalla area, as population levels arise and associated levels of local buying power increase. The key to capturing a greater share of expenditures locally is to increase the desirability of the retail mix in the area. The Marketek report outlines a number of sound recommendations to strengthen the downtown retail mix. The key variable for generating development/redevelopment activity will be the degree to which marketable space can be matched with viable tenants. The benefits of a more vital commercial core would accrue to local property owners and businesses, as well as residents who would benefit from more attractive and convenient retail opportunities.

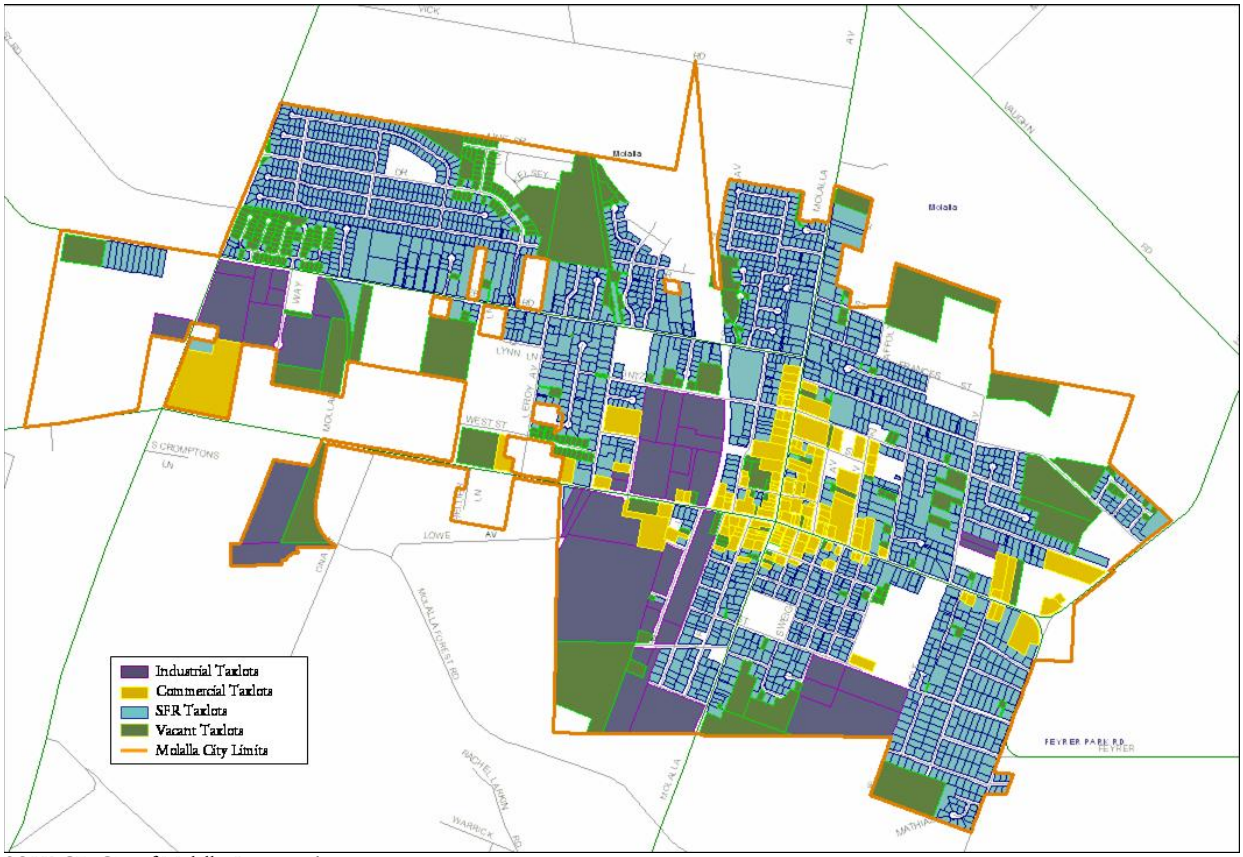
Office space demand within the City of Molalla will respond to community needs, supported by the area's population base and industrial activity. Likely tenant types would include medical office, insurance brokerages, realty companies, title companies, and other professional office users. These types of office tenants will often utilize ground floor commercial space, as they have a significant amount of customer traffic, but could be located in more traditional office configurations.

A competitive strength for Molalla is its inventory of industrial land, which includes a number of relatively large shovel-ready sites. While the Molalla area's distance from the primary regional transportation network makes it a relatively weak site for warehouse/distribution uses, the local workforce and location between the Portland metropolitan area and Salem are seen as potentially attractive to some users. The availability of land and local labor force will likely be attractive to small manufacturers and end user firms, with the relative isolation of the discouraging the type of speculative activity.

II. BUILDABLE LANDS INVENTORY

The City of Molalla has only a limited quantity of vacant land within the downtown study area, with available sites limited in terms of visibility as well as scale. The area has largely been built-out, and new development opportunities will be limited to a combination of relatively small sites and redevelopment site. Sites of limited scale present a number of development challenges, as do redevelopment sites. Within the City as a whole, there are a number of significant vacant industrial sites on the periphery of the current UGB, as well as some potential redevelopment sites.

MAP OF BUILDABLE LANDS INVENTORY



SOURCE: City of Molalla, June 2006

III. MACROECONOMIC OVERVIEW

National Trends

National economic performance has been outstanding for an extended period of time, but there is concern that we are nearing the end of the current business cycle. The national economy expanded at a 5.3% rate in the first three months of 2006, the strongest performance since the Summer of 2003. Private spending on automobiles, computers and equipment, a surge in exports due to the weak dollar, and significant spending on post-Hurricane Katrina rebuilding by the federal government spurred the economy in the first quarter.

NATIONAL ECONOMY AT A GLANCE: FIRST QUARTER OF 2006

	1Q06	4Q05	
G.D.P.	⇧ 5.3%	⇧ 1.7%	
Components			*Highlights*
Consumer Expenditure	⇧ 5.2%	⇧ 0.9%	All private spending increased, but the quarter was most benefited by a 20.5% annualized increase in durable goods spending, largely a rebound in automobile spending. Gasoline and fuel oil spending declined slightly during the first quarter.
Private Investment	⇧ 8.3%	⇧ 16.1%	A 13.8% increase in software and computer equipment purchases and an 11.3% increase in commercial structure construction were the main drivers of increased private investment
Government Expenditure	⇧ 4.3%	⇩ 0.8%	All manner of government spending increased, driven by a 12.2% increase in Federal non-defense spending, largely due to rebuilding of Hurricane Katrina devastation. State and local spending increased by less than 0.5%.
Exports	⇧ 14.7%	⇧ 5.1%	The weak dollar helped spur a 20% increase in goods export, but it wasn't enough to offset a 12.8% surge in the much larger flow of imports.
Imports	⇧ 12.8%	⇧ 12.1%	

Given the failure of fuel price spikes to immediately slow economic growth, the housing market has emerged over the past three months as perhaps the most-watched economic variable. Consensus has emerged that the national market indeed peaked in August of 2005, declining thereafter with gradual increases in long-term interest rates. Nationwide, measures of the housing market are decidedly mixed and contributing to some ambiguity for Federal Reserve policy.

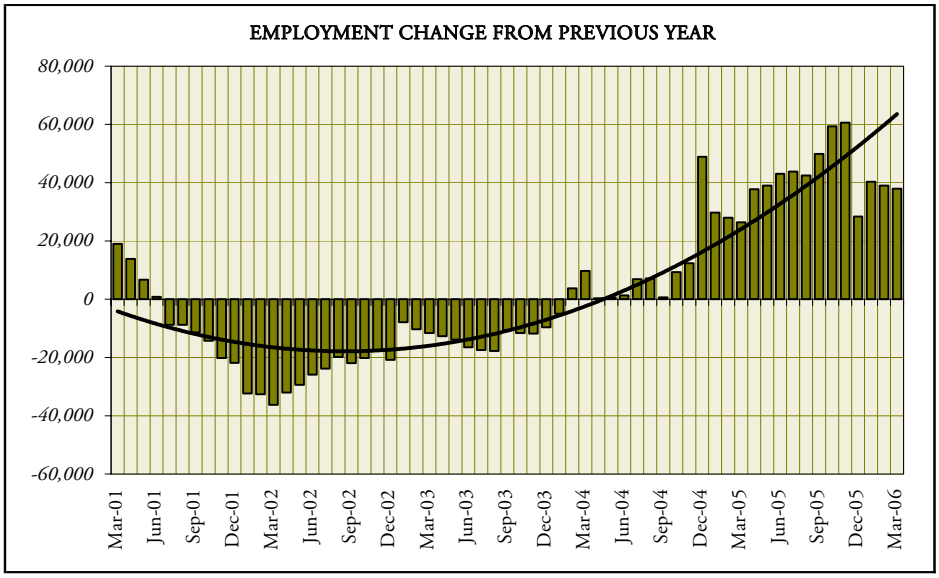
Caution is the order of the day, both from larger homebuilders and from the Federal Reserve. Economic strength in the face of higher fuel prices has Fed policy still biased towards rate escalation, but rate hikes have clearly put the brakes on the market via higher cost of short-term construction lending, higher cost of credit for consumers, and a hit to the lending sector. JOHNSON GARDNER fully expects the Federal Reserve to continue to push short-term rates upward, at least once more before September.

JOHNSON GARDNER is still bullish about the national economy, despite a cooling housing market nationwide. Fuel cost increases have appeared to not significantly affect economic strength as has been anticipated. While the recent jump in economic activity of 5.3% was impressive, it will not be

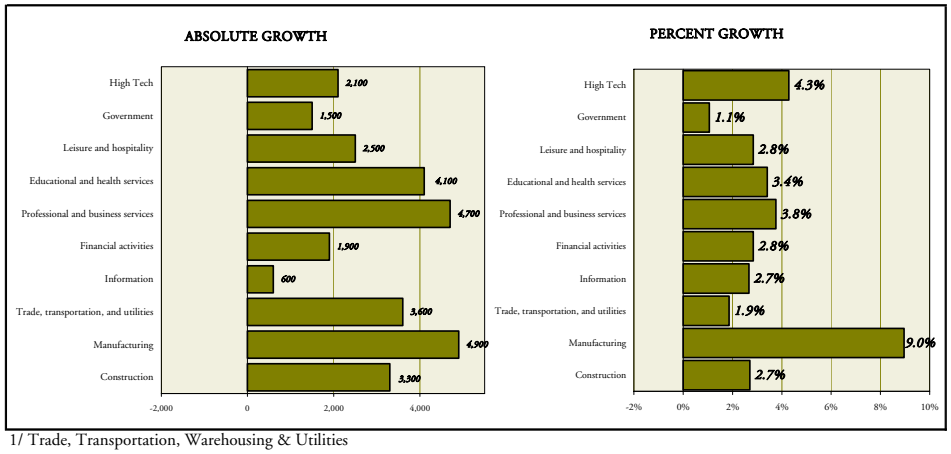
sustained and activity is anticipated to return to 3.1%-3.3% annual growth for the remainder of 2006 provided households continue to react rationally and mildly to rising rates.

Portland-Vancouver Metropolitan Area

The City of Molalla is considered part of the Portland metropolitan area, which is defined as for statistical purposes as Clackamas, Clark, Columbia, Multnomah, Skamania, Washington and Yamhill counties. The local economy continued to realize substantial employment growth throughout the first quarter, averaging around 39,000 more jobs in the quarter, and finishing March with employment levels exceeding 2004 levels by approximately 38,000. Trends in the commercial and industrial markets also indicate better than reported rates of growth or greater optimism for future space needs.



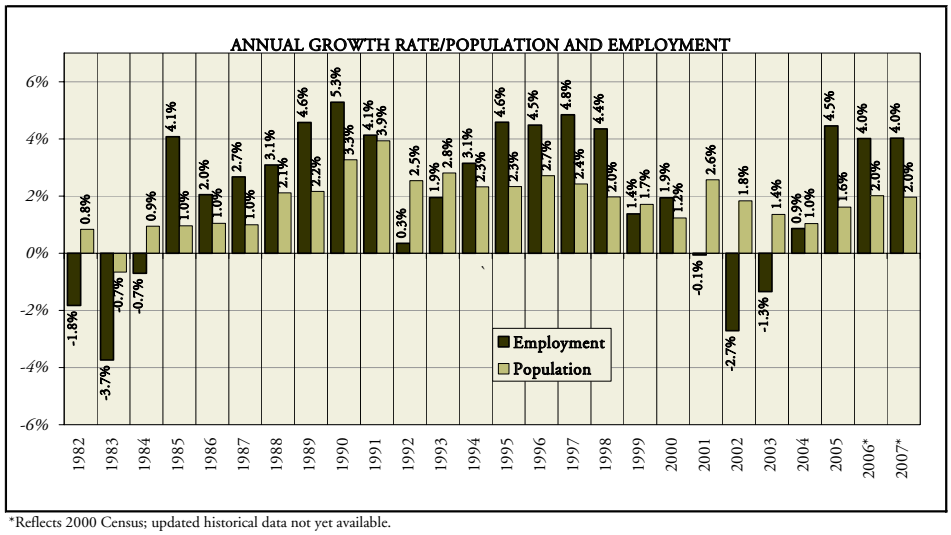
Employment gains during the last year were widespread, with all major industrial sectors reporting growth. In terms of the magnitude of growth, Manufacturing (4,900 jobs), Professional and Business Services (4,700 jobs), Education/Health Services (4,100 jobs), and Trade Transportation Warehousing and Utilities (3,600 jobs) led the way. In terms of rate of growth, Manufacturing (9.0%), High Tech (4.3%) and Professional and Business Services (3.8%) grew the fastest.



1/ Trade, Transportation, Warehousing & Utilities

Population & Residential Permitting

While a positive rate of population growth was maintained during the recent economic decline in the Portland metropolitan area, the strong positive employment growth is a welcome sign that the level of growth can be sustained. Population growth has ranged from 1.0% to 2.6% for the last decade, a pace we expect to continue. Employment growth is expected to be around 4.0% during the next couple years, followed by growth under 2.0%, allowing the locally high unemployment rate to continue to drop to a more sustainable level.

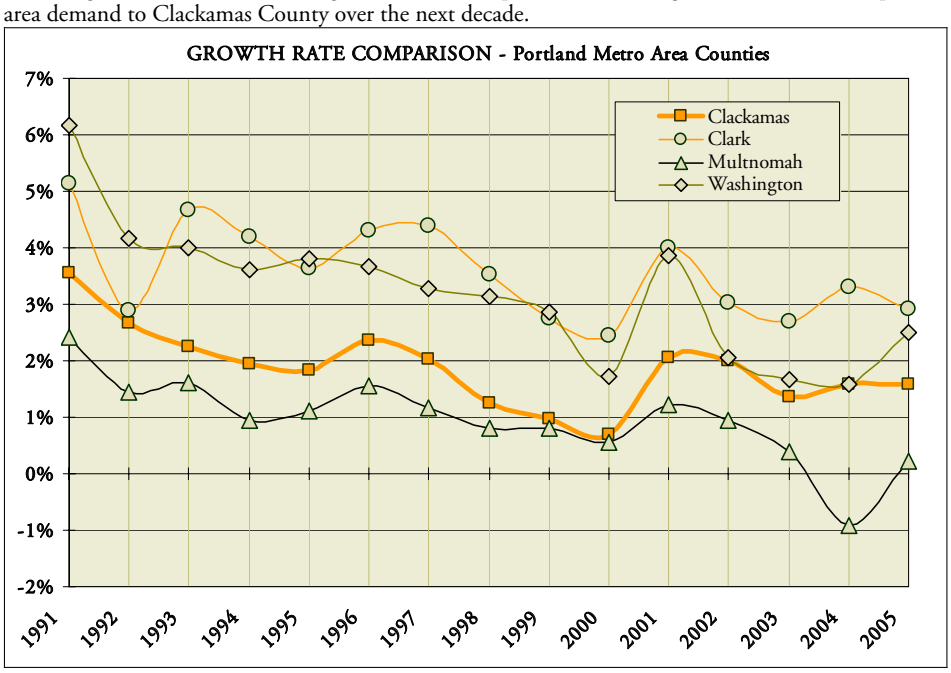


*Reflects 2000 Census; updated historical data not yet available.

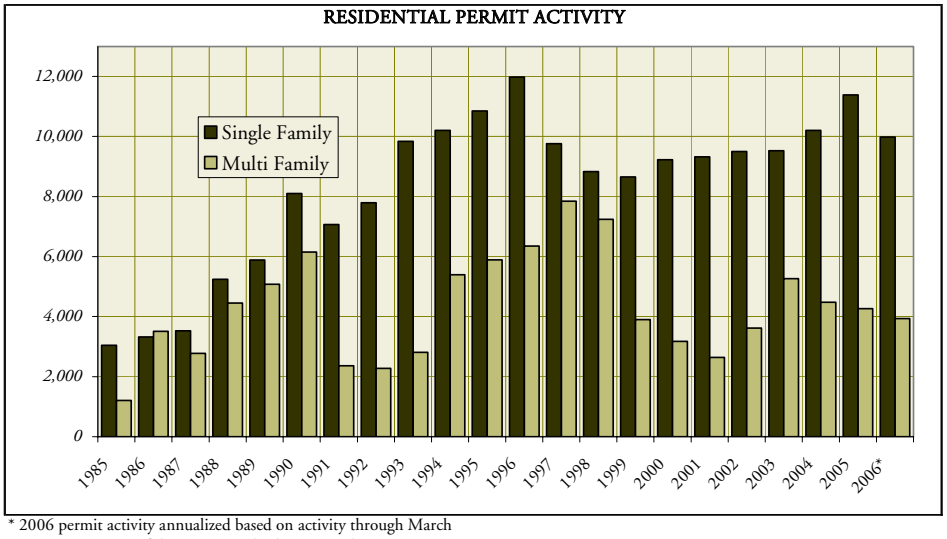
SOURCE: Center for Population Research and Census, State of Washington Office of Finance, and Johnson Gardner

Population growth in the Portland metropolitan area has been shifting away from Multnomah County and towards the more suburban areas. Clackamas County has lagged behind both

Washington and Clark Counties in terms of population growth rate over the last decade, but increasing land scarcity in Washington County is expected to drive a greater share of metropolitan area demand to Clackamas County over the next decade.



Continued population growth allowed for a continued strong level of residential construction activity.



* 2006 permit activity annualized based on activity through March
SOURCE: Bureau of the Census and Johnson Gardner

IV. MOLALLA AREA TRENDS

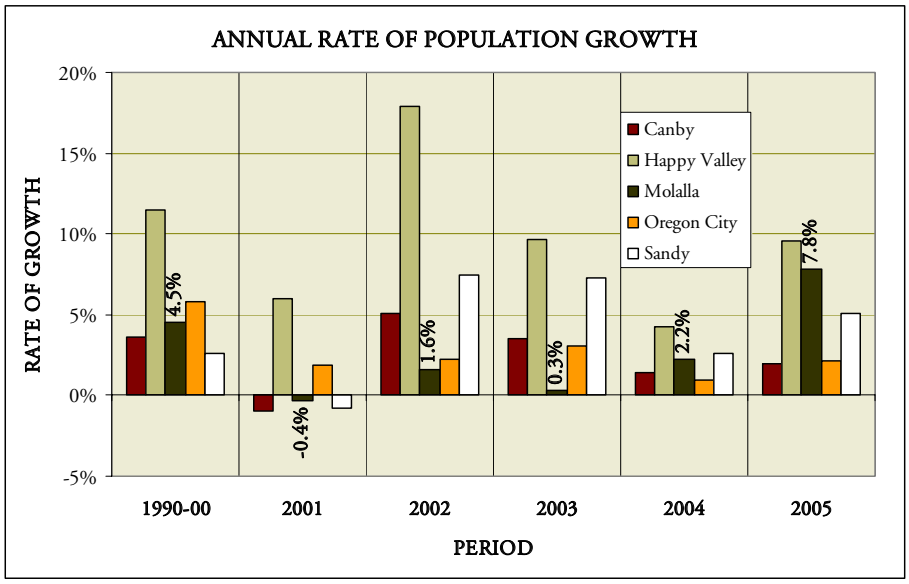
Population

Despite having being geographically separated from the Portland metropolitan area, metropolitan area trends are substantively impacting the Molalla area. Rising housing costs within the Portland metropolitan area's Urban Growth Boundary (UGB) have led to an increasing number of households employed in the area to seek housing in more rural communities or small cities on the periphery. Other communities experiencing residential growth attributable to metropolitan area trends include Canby, Sheridan, Dayton, Estacada, Sandy and Newberg.

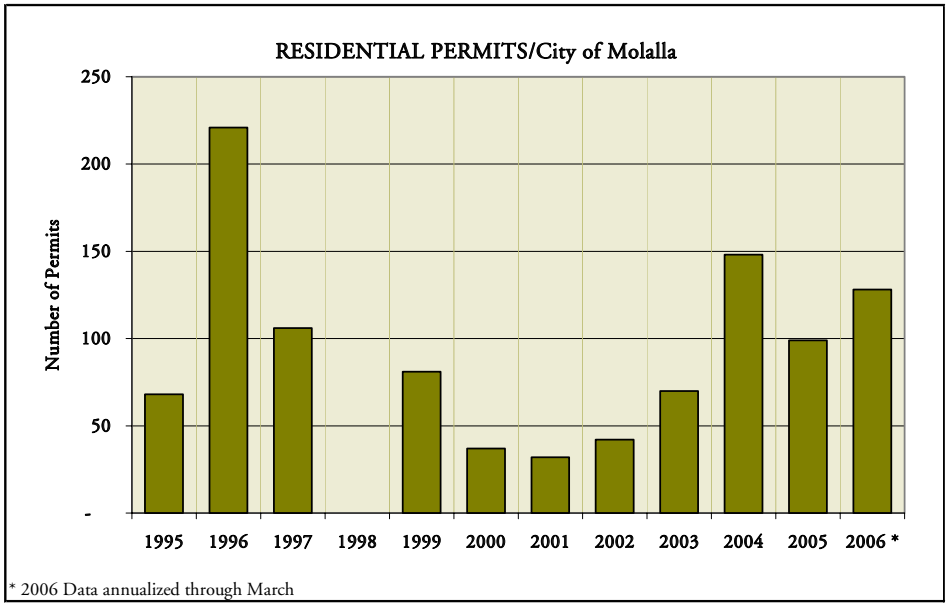
	July 1 Population Estimates						Census Population	
	2000	2001	2002	2003	2004	2005	4/1/2000	4/1/1990
CLACKAMAS	340,000	345,150	350,850	353,450	356,250	361,300	338,391	278,850
Barlow	140	140	140	140	140	140	140	118
Canby	12,910	12,790	13,440	13,910	14,110	14,385	12,790	8,990
Damascus						9,670		
Estacada	2,380	2,460	2,440	2,440	2,450	2,480	2,371	2,016
Gladstone	11,470	11,450	11,620	11,790	12,140	12,170	11,438	10,152
Happy Valley	4,650	4,930	5,810	6,370	6,640	7,275	4,519	1,519
Johnson City	635	630	630	630	630	630	634	586
Lake Oswego (part)*	33,115	33,270	33,428	33,530	33,595	33,740	32,989	28,317
Milwaukie	20,540	20,550	20,550	20,580	20,590	20,655	20,490	18,670
Molalla	**5,710**	**5,690**	**5,780**	**5,800**	**5,930**	**6,395**	**5,647**	**3,637**
Oregon City	26,200	26,680	27,270	28,100	28,370	28,965	25,754	14,698
Portland (part)*	750	760	759	770	780	785	747	707
Rivergrove (part)*	290	290	290	290	310	315	287	267
Sandy	5,425	5,380	5,780	6,200	6,360	6,680	5,385	4,154
Tualatin (part)*	2,695	2,725	2,740	2,820	2,895	3,065	2,664	1,406
West Linn	22,440	23,090	23,430	23,820	23,970	24,075	22,261	16,389
Wilsonville (part)*	14,360	14,165	15,585	14,225	14,595	14,855	13,987	7,096
Unincorporated	176,290	180,150	181,157	182,035	182,745	175,020	176,288	160,128

The City of Molalla's population base grew at an average annual rate of 4.5% from 1990 through 2000, more than twice the rate of growth for Clackamas County. Following relatively slow growth from 2000 through 2003, the City has seen growth accelerate in 2004 and 2005. While Happy Valley has been the County's fastest growing community over the last several years, land constraints are expected to shift an increasing share of demand to more peripheral communities such as Damascus, Sandy and Molalla.

Families with children have accounted for much of the growth in the City, while households without children represent a relatively low proportion of the overall household mix. The growth in families is likely attributable to the area's relative affordability as well as a quality school system.



Based on first quarter residential permit data, residential unit delivery in 2006 should be strong in Molalla. New subdivision activity in the area is expected to accommodate and help sustain the recent growth surge.



The City of Molalla's population projections anticipate an average annual rate of growth of 2.9% through 2025, increasing the population to just under 11,000 and number of household to 3,830. Based on recent trends, this forecast appears to be well within reasonable expectations. The City's share of Clackamas County's overall population would shift from 1.7% in 2000 to 3.1% in 2025.

Income and Employment

The income and employment characteristics of the City of Molalla are well documented in the City's Economic Development Profile, prepared by E.D. Hovee & Company in 2005. The following is a brief summary of the findings of that report regarding local income and employment.

- Household income in the area has increased at a rate above that of Clackamas County as a whole. Nonetheless, median incomes in the City were at 82% of the County median in 2000.

- While Molalla has historically been economically tied to the lumber industry, it has recently become more closely integrated with the overall Portland metropolitan area. This is reflected in the growing number of local residents who are employed outside of the community.

- The City of Molalla's work force grew substantially over the last decade, while the percentage of local workers employed within the City dropped from 36% to 23% from 1990 through 2000.

- Employment levels in the 97038 zip code have risen at an average annual rate of 6.3% from 1996 through 2003. Prior to this period, the area's employment base dropped substantially, due to the closure of a number of lumber mills.

- Manufacturing remains the area's largest employment concentration, led by lumber and wood products. The service sector has been growing rapidly, accounting for almost 22% of local employment in 2003. The retail sector is the third largest cluster, at just under 17%.

- The City of Molalla is targeting an average annual job growth rate of 5.5% through 2025. This reflects a fairly aggressive forecast, and is based on a policy decision to target 1.6 jobs per household. The expectation is that the services and retail sectors will provide much of this new employment, which is reflective of the area's residential growth.

V. RETAIL MARKET TRENDS

The retail market is an area of obvious opportunity in the Molalla area, as population levels arise and associated levels of local buying power increase. The City recently commissioned Marketek to complete a market analysis of downtown retail potential. This study was made available to us in draft format, and provides a substantial amount of the information summarized in this chapter.

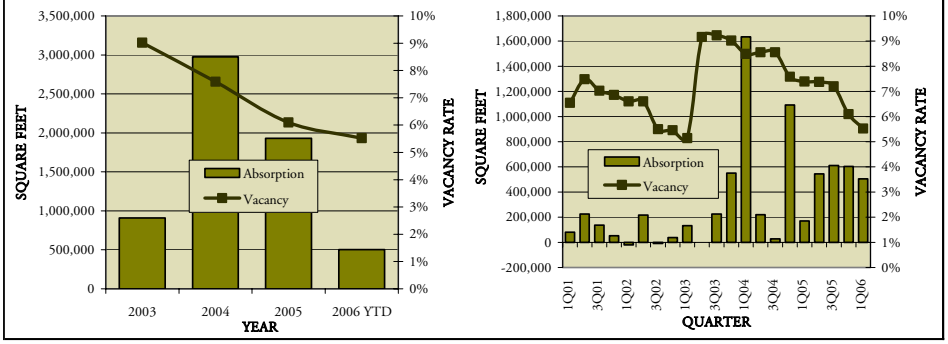
Portland Metropolitan Area Trends

The Portland metropolitan area's retail market vacancy rate continues its ten-quarter gradual decline from a high of 9.2%. In the first quarter, the market absorbed 504,000 square feet while adding

163,000 square feet of new space. Vacancy in tracked space on Co-Star[1] dropped from the last quarter to 5.5%. In regional and power centers[2], vacancy remained minimal, while community/neighborhood centers continued their positive trend, with vacancy dropping to only 4.2%. Mixed-use (9.9%) and strip/specialty/urban centers (8.8%) again had the highest vacancy rates, though occupancy was up substantially for both compared to the previous quarter.

	Speculative Inventory	New Construction	Inventory Adjustments	Net Absorption	Vacancy S.F.	Vacancy Rate
BREAKOUT BY CLASS						
Strip/Specialty/Urban	19,908,766	86,388	1,120,835	345,245	1,752,208	8.8%
Community/Neighborhood	24,740,783	0	-2,716,765	218,441	1,030,945	4.2%
Mixed Use	1,729,813	76,488	35,205	114,919	170,874	9.9%
Power/Regional	11,402,999	0	-2,497,855	-174,479	235,322	2.1%
Total	57,782,361	162,876	-4,058,580	504,126	3,189,349	5.5%

NET ABSORPTION AND VACANCY RATE TRENDS



Mixed-use retail space typically reports vacancy levels well above average, as this type of space does not include typical anchor stores (such as a grocery or department store), and the tenants tend to turn over on a more regular basis.

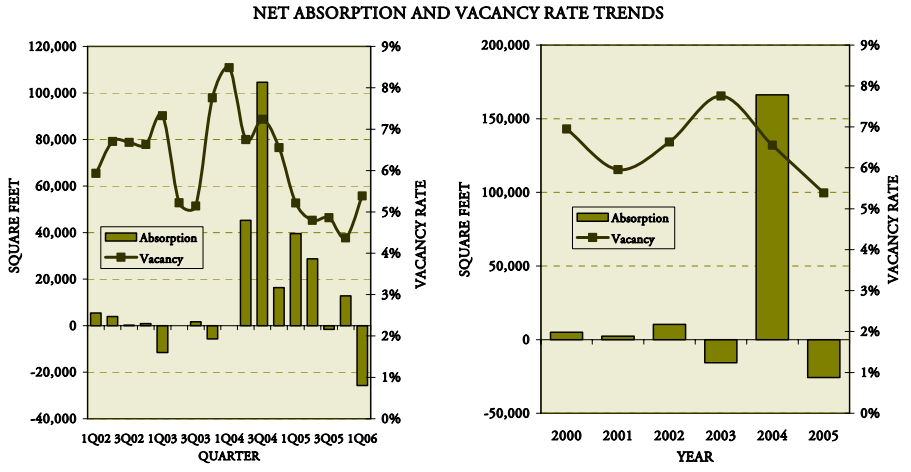
The most significant recent retail development in the Region, Bridgeport Village in Tualatin, sold last year for a price of $366 per square foot. The 465,000 square-foot lifestyle center has been well received and several new retail projects are scheduled for construction in the area along I-5. Major upcoming additions to Portland area retail include the 280,000 square-foot IKEA megastore, which is set to begin construction later this year at Cascade Station, and Kohl's, which will be building three stores and converting a fourth.

A total of 1.30 million square feet of new space is projected to enter the market over the next twelve months, while demand is estimated at 1.16 million square feet. While the Portland market has successfully absorbed recent surges in construction, this will be tested with the large amounts of new supply scheduled to enter the market in the next two years. Our demand model predicts market vacancy will edge up slightly to 5.6% by the first quarter of 2007, and continue upwards to 6.4% by the first quarter of 2008.

[1] CoStar is a firm that tracks commercial property listings in the Portland metropolitan area.
[2] Power Centers are regional-draw shopping centers that do not have covered common areas, such as the Clackamas Promenade.

The City of Molalla is included as part of the broader Oregon City/McLoughlin Corridor subregion. This market is among the healthiest in the Portland metropolitan area, with an overall vacancy rate of just over 5%. To-date, the area has been missing a regional retail center, but the proposed development by CenterCal in Oregon City will address that deficiency.

	Speculative Inventory	New Construction	Inventory Adjustments	Net Absorption	Vacancy S.F.	Vacancy Rate
BREAKOUT BY CLASS						
Strip/Specialty/Urban	551,236	0	66,472	7,142	19,334	3.51%
Community/Neighborhood	1,822,545	0	-182,300	-32,038	108,597	5.96%
Mixed Use	54,500	0	4,500	-808	2,850	5.23%
Power/Regional	0	0	0	0	0	N/A
Total	2,428,281	0	-111,328	-25,704	130,781	5.39%
BREAKOUT BY SUBMARKET						
Damascus/Sandy	202,838	0	11,000	-23,388	72,058	35.52%
SE Outlying	406,611	0	-99,528	-5,360	3,970	0.98%
Oregon City	1,377,904	0	-29,200	4,995	52,457	3.81%
Canby	440,928	0	6,400	-1,951	2,296	0.52%
Total	2,428,281	0	-111,328	-25,704	130,781	5.39%



Molalla

The City of Molalla commissioned Marketek, Inc. to complete a retail market analysis, which was made available in draft form for the preparation of this memorandum. The recent work by Marketek provides a thorough assessment of market support for retail/service/restaurant uses in Molalla and the downtown Molalla commercial district. The following are key findings from this report:

- Population growth has been robust, with the population slightly younger relative to Clackamas County or the State of Oregon as a whole.

- An estimated 37% of the local work force is employed in "blue collar" occupations, compared to a countywide average of 23%. "White collar" employment represents 47% of Molalla market area jobs, compared to 63% at the County level.
- The downtown area has a limited retail base, with expressed public desire for more specialty retail uses, particularly apparel and restaurants.
- Over half of residents surveyed did most of their non-grocery shopping in the Portland metropolitan area. The most common reason influencing shopping choice cited in the survey was the availability of a wide selection of goods and price-level.
- There are few vacancies in existing retail spaces in downtown Molalla.

The key to capturing a greater share of expenditures locally is to increase the desirability of the retail mix in the area. The Marketek report outlines a number of sound recommendations to strengthen the downtown retail mix. The key variable for generating development/redevelopment activity will be the degree to which marketable space can be matched with viable tenants. New development will typically require pre-leasing commitments from tenants, at rates consistent with required returns. At this time, we do not have information with respect to marginal lease rates in the downtown area, but the Molalla Market Center is quoting rates of $18.00 to $22.00 per square foot triple net (exclusive of expenses). These rates are above those for older centers in Oregon City, indicating that the market is strong and may be able to support similar rent levels for new space in the downtown.

The retail market is currently sound in the Molalla area, with significant levels of leakage to the Portland metropolitan area. The recent and anticipated level of residential growth in the area should allow for an expansion of retail opportunities locally. Marginal rent levels appear to be adequate to support new construction, and are certainly high enough to support renovation/rehab of existing structures. Increasing the desirability of the retail mix in downtown Molalla is viable, but should be strategically approached. The benefits of a more vital commercial core would accrue to local property owners and businesses, as well as residents who would benefit from more attractive and convenient retail opportunities.

VI. OFFICE MARKET TRENDS

Portland Metropolitan Area

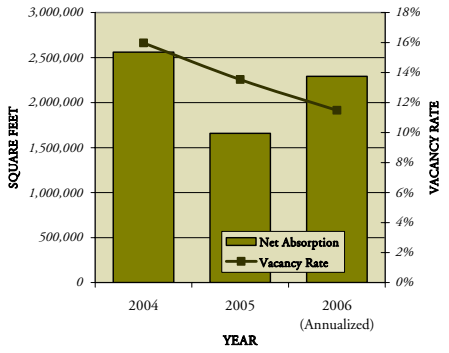
On a metropolitan area level, the office market has been recovering from an extended over-build period. While the overall market was soft, most of the vacancy was felt in the tech-heavy Sunset Corridor and downtown Portland submarkets. The suburban markets remained relatively healthy, as population growth continued bringing an associated demand for uses such as medical office.

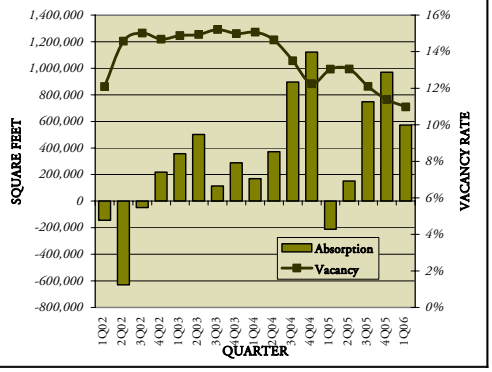
The Portland metropolitan area's speculative office market reported an increase in overall occupied office space during the first quarter of 2006 of over 570,000 square feet, the fifth-largest quarterly gain in the past five years despite significant new construction. The strong absorption and general tightening of the market suggest a continued positive future outlook. The direct vacancy rate and total vacancy including sublease space dropped to 11.0% and 11.5%, respectively. Office space is typically underwritten with an assumed 10% vacancy rate, which is considered a structural rate of vacancy consistent with a balanced market. Using this baseline, the market overall is still somewhat over-supplied, but moving towards stabilization.

OFFICE MARKET SUMMARY, FIRST QUARTER 2006

	Speculative Inventory	New Construction	Inventory Adjustments	Net Absorption	Vacancy Direct	Vacancy Sublease	Vacancy Direct	Vacancy Total
BREAKOUT BY CLASS								
Class A	25,707,577	0	66,975	134,623	1,962,987	165,588	7.64%	8.28%
Class B	26,550,035	197,497	242,514	352,473	3,566,105	131,488	13.43%	13.93%
Class C	14,021,915	0	462,647	85,959	1,742,335	43,857	12.43%	12.74%
Total	66,279,527	197,497	772,136	573,055	7,271,427	340,933	10.97%	11.49%

NET ABSORPTION AND VACANCY RATE TRENDS





The direct vacancy rate for Class-A space is estimated at 7.6%, or 8.3% with sublease space included, a drop that is consistent with the overall market. Direct vacancy is estimated at 13.4% and 12.4% for Class-B and Class-C space, reflecting a continued move to quality in this buyer's market. An estimated 7.3 million square feet of tracked space is directly vacant, with 341,000 square feet of space identified for sublease. The amount of sublease space has now declined consistently over the past nine quarters, and both direct and total vacancies have been generally trending downward over the past three years.

We are seeing vacancy rates below 10% in the I-5 South Corridor, the Sunset Corridor/Hillsboro, and the East Multnomah County subregions. The first two markets, along with Kruse Way/ Washington Square serve major executive housing concentrations, and have performed far better than the Portland CBD over the last decade. The strongest submarkets in terms of occupancy are Close-In Northeast Portland (3.8%), the I-205 corridor in East Multnomah County (5.6%), and Kruse Way in Lake Oswego.(6.2%).

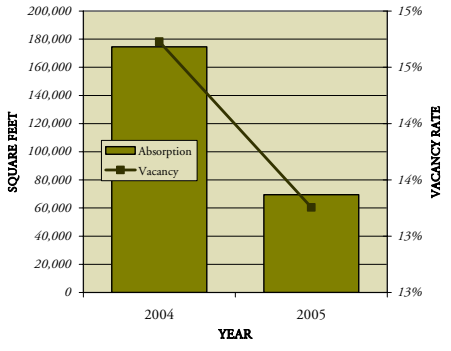
Soft market conditions and low net lease rates are expected to limit new supply over the next year to 1,084,000 square feet, while demand is forecasted to exceed 2.3 million square feet. Our demand forecasts for office space are employment driven, and as a result do not factor in the marginal impact of soft market conditions and reduced effective lease rates. During periods of relatively high vacancy, aggressive leasing tactics have the ability to generate demand through reducing the effective cost of space to tenants. While this can lead to an increase in net absorption, it is important to recognize that the impact is temporary, and does not change the underlying demand for space if priced appropriately. Our projected demand increase reflects predictions for improved economic performance in the region.

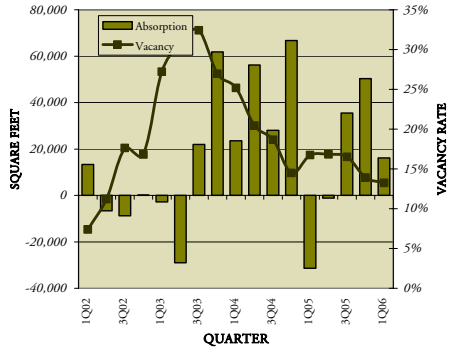
Molalla Area

The Molalla area is included within the broader Milwaukie/Gladstone/Oregon City submarket in terms of tracked office space. This market reported a 13.9% vacancy rate at the end of the first quarter of 2006, and is heavily weighted towards lower quality Class B and Class C space. The vacancy rate has improved significantly over the last few years.

	Speculative Inventory	New Construction	Inventory Adjustments	Net Absorption	Vacancy Direct	Vacancy Sublease	Vacancy Direct	Vacancy Total
BREAKOUT BY CLASS								
Class A	171,710	0	0	9,412	56,595	0	32.96%	32.96%
Class B	941,960	4,192	33,000	-13,052	130,565	0	13.86%	13.86%
Class C	855,749	0	49,223	19,757	73,893	0	8.63%	8.63%
Total	1,969,419	4,192	82,223	16,117	261,053	0	13.26%	13.26%
BREAKOUT BY SUBMARKET								
Milwaukie/Glad/OC	1,969,419	4,192	82,223	16,117	261,053	0	13.26%	13.26%
Total	1,969,419	4,192	82,223	16,117	261,053	0	13.26%	13.26%

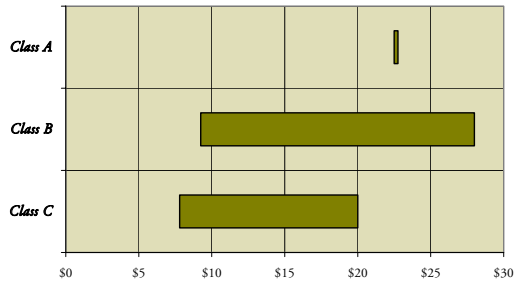
NET ABSORPTION AND VACANCY RATE TRENDS





QUOTED RENT RANGES

BY CLASS	Low	High
Class A	$22.50	$22.75
Class B	$9.25	$28.00
Class C	$7.80	$20.00
Total	$7.80	$28.00



SOURCE: CoStar and Johnson Gardner

Office space demand within the City of Molalla will likely be based on community needs, supported by the area's population base and industrial activity. Likely tenant types would include medical office, insurance brokerages, realty companies, title companies, and other professional office users.

These types of office tenants will often utilize ground floor commercial space, as they have a significant amount of customer traffic, but can be located in more traditional office configurations.

VII. INDUSTRIAL MARKET TRENDS

While industrial space is not seen as an appropriate use type within the downtown area, the success of the area's industrial properties to attract employment will be key to the ongoing strength of the downtown area.

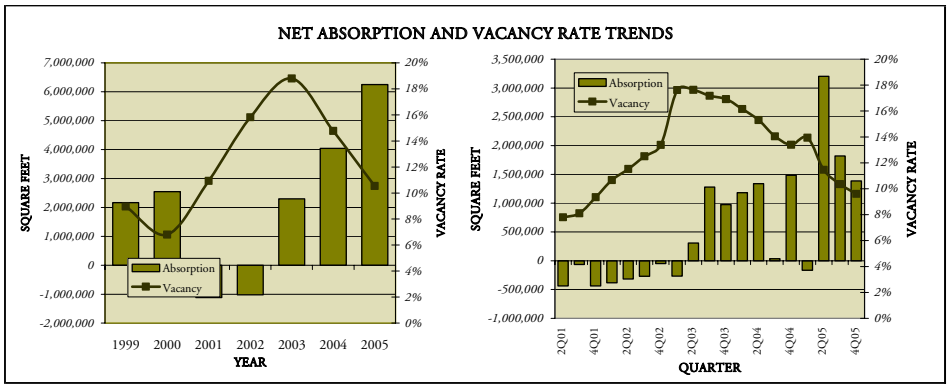
Portland Metropolitan Area

The metropolitan area's speculative industrial market experienced net absorption of 181,000 square feet during the first quarter of 2006, and an increase in direct vacancy from 9.6% to 10.1% in tracked projects. The overall occupancy rate for traditional industrial space is estimated at 10.2% with sublease space included. The flex market component of the industrial market had higher rates of 14.6% direct and 15.2% overall.

FIRST QUARTER, 2006

	Speculative Inventory	New Construction	Inventory Adjustments	Net Absorption	Vacancy Direct	Vacancy Sublease	Vacancy Direct	Vacancy Total
BREAKOUT BY CLASS								
Industrial	114,633,908	701,260	968,459	(127,739)	10,706,116	928,451	9.34%	10.15%
Flex	19,567,287	35,686	112,537	308,675	2,860,953	114,806	14.62%	15.21%
Total	134,201,195	736,946	1,080,996	180,936	13,567,069	1,043,257	10.11%	10.89%
BREAKOUT BY SUBREGION								
Westside	46,688,225	86,936	494,689	322,933	5,178,901	691,745	11.09%	12.57%
North-Northwest	26,510,973	438,750	167,525	(85,727)	2,282,387	67,622	8.61%	8.86%
Northeast	29,029,850	50,000	152,197	(110,857)	2,877,005	136,189	9.91%	10.38%
Southeast	18,517,549	99,110	(184,125)	(62,149)	2,133,551	53,718	11.52%	11.81%
Vancouver	13,454,598	62,150	450,710	116,737	1,095,225	93,983	8.14%	8.84%
Total	134,201,195	736,946	1,080,996	180,936	13,567,069	1,043,257	10.11%	10.89%

As with office space, the demand for industrial space is directly correlated with growth in industrial space using employment, and a rebound in this market will ultimately be directly tied to an economic rebound.



There has been a shift in demand for owners wanting to buy and occupy buildings, with a number of developers now actively targeting this niche. Sales prices are above what can be achieved in traditional speculative construction, making this type of product attractive in the right circumstances.

New supply is projected to total around 2.1 million square feet during through the second quarter of 2007, while demand is expected to reach 4.8 million square feet. The CoStar data used in this analysis includes some owner-occupied space, which tends to increase the overall occupancy rate. The following table summarizes fourth quarter data from CB Richard Ellis that is limited only to speculative space. As shown, the overall vacancy rate is significantly higher for speculative space at that time. During the same period, the estimated vacancy rate for all space was 11.4%, while the rate for speculative space was estimated at 14.24%.

FOURTH QUARTER, 2005

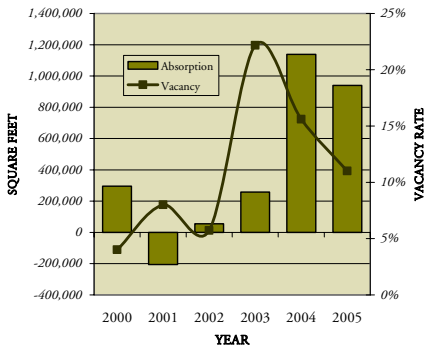
	Net Rentable S.F.	Available S.F.	Vacancy Rate	Quarterly Net Absorption	Net Absorption 2002	2003	2004
Northeast	9,908,953	1,462,561	14.76%	152,542	306,494	3,583	213,060
Northwest	7,789,851	1,042,282	13.38%	109,350	-41,545	-58,371	251,039
Southeast	5,033,574	648,324	12.88%	54,496	162,447	-27,614	-42,015
Southwest	20,562,144	3,400,979	16.54%	313,807	-220,871	-547,372	306,214
Vancouver	8,072,235	762,826	9.45%	96,624	-5,703	180,659	156,643
Overall	51,366,757	7,316,973	14.24%	726,819	200,822	-449,115	884,941

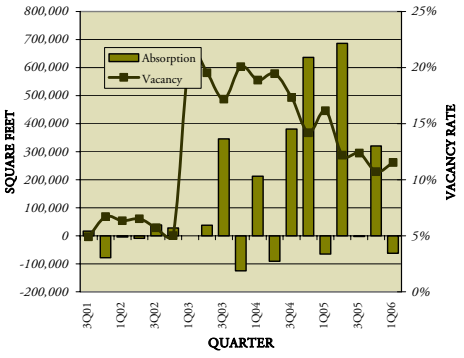
Molalla Area

The Molalla area is included within the Portland metropolitan area's broader Southeast submarket in terms of tracked industrial space. This market reported an 11.5% vacancy rate at the end of the first, with the Oregon City area reporting a rate of 18.8%. As with the office market, industrial development is typically underwritten assuming a 10% structural vacancy rate. The current rate indicates that the market is soft, but it has been improving rapidly.

	Speculative Inventory	New Construction	Inventory Adjustments	Net Absorption	Vacancy Direct	Vacancy Sublease	Vacancy Direct	Vacancy Total
BREAKOUT BY CLASS								
Industrial	17,143,549	99,110	-172,125	-60,080	1,900,552	37,718	11.09%	11.31%
Flex	1,374,000	0	-12,000	-2,068	232,999	16,000	16.96%	18.12%
Total	18,517,549	99,110	-184,125	-62,149	2,133,551	53,718	11.52%	11.81%
BREAKOUT BY SUBMARKET								
Clackamas	5,724,900	0	-349,490	117,787	472,504	37,203	8.25%	8.90%
Close-In Southeast	4,081,548	0	53,733	25,527	499,345	16,515	12.23%	12.64%
Milwaukie	6,869,670	80,566	66,932	-148,582	883,692	0	12.86%	12.86%
Oregon City	862,850	0	11,840	-40,101	162,327	0	18.81%	18.81%
Other	978,581	18,544	32,860	-16,779	115,683	0	11.82%	11.82%
Total	18,517,549	99,110	-184,125	-62,149	2,133,551	53,718	11.52%	11.81%

NET ABSORPTION AND VACANCY RATE TRENDS

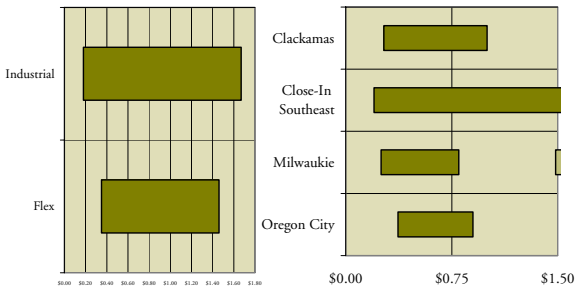




QUOTED RENT RANGES

BY CLASS	Low	High
Industrial	$0.18	$1.67
Flex	$0.35	$1.46

BY SUBMARKET	Industrial	Flex
Clackamas	$0.27 - $1.00	$0.54 - $1.00
Close-In Southeast	$0.20 - $1.67	$0.50 - $1.17
Milwaukie	$0.25 - $0.80	$0.69 - $1.04
Oregon City	$0.37 - $0.90	--
Other	$0.34 - $0.54	$0.49 - $0.49
Total	$0.20 - $1.67	$0.50 - $1.17



SOURCE: CoStar and Johnson Gardner LLC

The Molalla's area distance from regional transportation network makes it a relatively weak site for warehouse/distribution uses. The availability of land and local labor force will likely be attractive to small manufacturers and end user firms, with the relative isolation of the discouraging the type of speculative activity seen along the Interstate corridors. Areas along the Interstate highway system are seen as more attractive to institutional investors, and tend to attract a greater level of speculative construction activity.

Memorandum

DATE: November 28, 2006

TO: Gene Green
Jamie Johnk
CITY OF MOLALLA
Kirstin Greene
COGAN OWENS COGAN

ADDENDUM

FROM: Jerry Johnson
JOHNSON GARDNER, LLC

SUBJECT: Technical Memo #1: Market Analysis for Downtown Molalla

As part of our evaluation of the City's Downtown Development and Highway 211 Streetscape Plan, Johnson Gardner has been conducting a series of interviews with professionals in the development industry, both private sector developers and public agencies tasked with encouraging downtown development and/or redevelopment. To-date, the following interviews have been completed.

- *Alice Rouyer, Executive Manager, City of Gresham*
- *David Copenhavor, Gramor NW*
- *Phil Whitmore, Metro*
- *Rob Hinnen, Trammell Crow Residential*
- *Eric Wentland, Developer*

This memorandum will be updated as additional interviews are completed.

I. CONCLUSIONS

Persons interviewed had a range of experience with Molalla, but most were only occasional visitors. The interviewees were chosen based on their experience either locally or in developments of a scale and nature similar to what is envisioned in the planning efforts to-date. The general consensus was that Molalla's time will likely come, but it may not be there yet. While planning for mixed-use, keep in mind that this is a market in which achievable pricing is limited, and the form of development will vary substantively from areas with higher pricing.

A range of actions were recommended if the City wanted to influence development activity in the downtown area. It was stressed by all persons interviewed that the City shouldn't place unworkable limits on new development, or nothing will happen. If a decision was made to intervene in the market, it might include a decision for strategic acquisitions, establishing tools to encourage targeted development forms, or additional planning efforts to assist in local visualization of what is possible.

II. COMMENTS FROM INTERVIEWS

This section outlines selected comments obtained during our interviews. Comments are categorized by area of emphasis, and not directly attributed.

Familiarity with Molalla
- Developed a shopping center in Molalla
- Daughter takes equestrian lessons in Molalla area
- Regular visits to the area, personal reasons
- Haven't been to Molalla for about ten years
    - *Used to ride through on bike rides*

Primary Area of Professional Activity
- Commercial development, including some mixed-use and redevelopment projects
- Commercial and residential development, mixed-use and infill sites
- Encouraging and facilitating mixed-use developments for Metro in support of 2040 plan objectives

What Criteria Does Your Firm Use in Selecting Projects
- Demographics, path of growth favored
- Emerging areas, interesting projects

Would your firm have interest in developing properties in Molalla?
- Yes. Second phase of existing project is still planned, if anchors can be attracted
- Limited capacity, and probably opportunities in areas easier to supervise due to proximity

Opportunities
- Molalla could support a hardware/farm-type tenant (i.e., Wilco, Coastal). Area draws substantially from surrounding rural areas.
- Tenants like to locate in direction of growth, often on periphery.
- Marginal retail rents are in the $26 to $28 range, which can support new construction but of an affordable nature.
- The area may not be ready for significant density, but modest projects should be viable
- Much of the recent growth to-date has been driven by residential development.

Challenges
- Woodburn and Silverton are competitively strong.
- Have a lot of projects going, Molalla not seen as a priority
- This is an area we would not have any interest in, as the market is too thin to support the scale of development we need to do.
- Distance will make project management difficult for non-local developer

Recommendations for the City
- If the City intends to intervene in the development market, there should be a consensus regarding what it wants to achieve.
- Use design guidelines and a specific area plan as a base
- Keep public outreach focused
- Don't be too prescriptive, allow the development market some flexibility

- Tools used have included land assembly, grants, vertical housing tax abatements, SDC waivers or flexibility in payment, Low Income Housing Tax Credits (LIHTC) and second position debt.
- Grants and low income loans are available
- The City needs to be patient, but can opportunistically acquire key properties when available.
- If a developer is found, the City needs to be willing to support financially and politically
- If the public process is too early, it can create unrealistic expectations
- An Ad Hoc committee with a good cross section of representation can help get buy off prior to public release
- City could acquire key parcels and write down for targeted development types
- Use vertical housing tax abatements to encourage mixed-use
- Establish an Urban Renewal district
- Conduct a design charette, allowing the public to visualize what Molalla could be
    - Need to find a way to engage interested buyers, prospective developers
- Hold focus groups to establish prospective buyer interest
- Initial projects should be modest in size
- The City can use public investments to drive private development activity, either through direct development, infrastructure development or serving as a tenant in a mixed use development.

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SUSTAINABLE DEVELOPMENT
ENVIRONMENTAL PROJECT MANAGEMENT
GOVERNMENTAL/COMMUNITY RELATIONS

MEMORANDUM

DATE: October 23, 2006

TO: Jamie Johnk, Gene Green, City of Molalla
Downtown/Oregon 211 Task Force
Downtown/Oregon 211 Project Management Team

FROM: Teak Wall, Kirstin Greene, AICP

RE: **Final Technical Memo # 2: Plans, Services, and Programmed Improvements**

This technical memorandum identifies plans and policies that are relevant to the Molalla Downtown Development & OR 211 Streetscape Plan (the Downtown/OR 211 Plan). It outlines planned infrastructure improvements and discusses opportunities and constraints on the provision of infrastructure for future growth in the Downtown Study Area.

STATE OF OREGON

1) State Goals
The foundation of Oregon's land use planning program is a set of 19 statewide planning goals, which express the state's policies on land use and related topics. Local governments, special districts and state agencies' plans must all be consistent with the goals.

The following goals are most applicable in guiding the Downtown/OR 211 Plan:

a) Goal 1: To develop and implement a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.

b) Goal 2: To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions. Attempts to ensure coordinated planning among cities, counties, special districts and other interest groups.

c) Goal 5: To protect natural resources and conserve scenic and historic areas as well as open spaces.

d) Goal 11: To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

e) Goal 12: To provide and encourage a safe, convenient and economic transportation system; includes provisions for freight, automobile, bicycle and pedestrian use.

f) Goal 14: To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban residential and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.

2) Oregon Highway Plan

The 1999 Oregon Highway Plan (OHP) describes the current conditions of the state highway system and establishes policies and strategies for future improvements and highway system standards. The plan emphasizes:

- Efficient management of the system to increase safety, preserve the system and extend its capacity;
- Increased partnerships, particularly with regional and local governments;
- Links between land use and transportation;
- Access management;
- Links with other transportation modes; and
- Environmental and scenic resources.

The OHP also allows for the designation of special transportation areas (STAs) and Urban Business Areas (UBAs). The purpose of STAs is to "provide access to community activities, businesses, and residences and to accommodate pedestrian movement along and across the highway in a downtown, business district and/or community center." UBAs are designated highway segments intended to maintain efficient traffic flow while allowing speeds and access appropriate to commercial uses.

CITY OF MOLALLA

3) Existing Comprehensive Plan

The City of Molalla Comprehensive Plan is a legally–binding document that describes community goals, desired land uses, and policies. The Comprehensive Plan map delineates land use designations for the city. Descriptions of Comprehensive Plan elements relevant to the Downtown/OR 211 Plan follow.

a) Commerce

The City's goal is to "develop a commercial district of a size and with a range of services related to the needs of the population and market area."

Relevant policies include:

- Ensure, through ordinance requirements that adequate off-street parking is provided to the core area of the city to the greatest extent possible.
- Locate commercial lands where good access and public exposure exist.
- Provide the additional land needed for commercial expansion to serve the projected population growth and to ensure choice in the market place.

- Provide for maximum flexibility in the use of the land by designing specific areas for a mix of commercial uses.
- Locate commercial lands where public services exist or can be provided.

b) Water

The City's goal is to maintain an adequate water quality, supply and distribution system to meet the needs of the citizens of Molalla.

Relevant policies include:

- To improve the condition of the water distribution system and curtail losses by leakage as soon as possible.
- To provide fire flows west of the SPRR Tracks as a high priority public facility project consistent with financial capability of the City.

c) Transportation

The city aims to minimize the vehicular impact upon the City of Molalla and to integrate Molalla with the various transportation planning and development systems within the state.

Relevant city policies that may affect the Downtown/OR 211 Plan include:

- Provide safe pedestrian access to schools, parks, and shopping to make walking a realistic alternative to driving within the city.
- Encourage bicycle paths within the city to the greatest extent possible
- Explore all possibilities for developing an alternate truck route to divert the heavy truck traffic away from the core area.
- Pursue with other government agencies the possibility of providing transit service for people at the senior center.
- Support the development of pedestrian/bikeways along Molalla's road network to the greatest extent possible.

An update to the Comprehensive Plan is underway and will be available for review by early October.

4) Existing Zoning Code

The City of Molalla Zoning Ordinance within the City implements the Comprehensive Plan policies. The map is the same as the Comprehensive Plan and identifies zoning designations for parcels within the city, while the ordinance provides standards and criteria for land use and development. The following zone designations can be found in the study area:

i) Residential

The R-2 District provides for detached single-family dwellings or duplexes.

The R-3 District provides for duplexes and multi-family dwellings.

ii) Commercial

The commercial districts are intended to provide shopping, business, and transportation serving the community and its trading area.

The C-1 Central Commercial district allows for a broad range of uses in keeping with Molalla's historic commercial area and central business districts. Development in the C-1 district is intended to be characterized by high building coverage and close placement of buildings. Development is also to be pedestrian-oriented with a strong emphasis on a pleasant streetscape.

Retail, services, public use facilities, and office uses are allowed outright in the C-1 zone. Central Commercial zones are located in downtown Molalla along North Molalla Avenue and West Main St.

The C-2 district allows a full range of retail and service businesses for a local or regional market. The district should be characterized by attractive development, an open and pleasant street appearance, and compatibility with adjacent residential areas. Development is expected to be generally auto-oriented, and intended to be aesthetically pleasing for motorists, pedestrians, and the businesses themselves. Retail, services, public use facilities, office uses, public buildings, and some rail uses are allowed outright in the C2 zone. This zone is found along Hwy 211 outside the city center.

iii) Industrial

Light Industrial (M-1) areas are designated for non-polluting industries, which are generally compatible with residential and commercial activities. In a light industrial district, attention is given to the protection of surrounding areas from off-site impacts. Light industrial parcels in Molalla are located along Hwy 211 and South Shaver Street.

The purpose and function of a manufacturing district (M2) is to encourage the location of uses that have a strong industrial orientation while protecting the health, safety and welfare of the public and character of the area. M2 zones are located on large parcels outside the city center.

iv) Public/Semi-Public

The purpose and function of this district is for the siting of public or semi-public facilities. This zone is found on large parcels scattered throughout the city.

5) Proposed Zoning Code

The proposed changes to the zoning code are expected to reflect the 2006 amended Comprehensive Plan. New residential (R-5) and highway commercial (C-3) zones are proposed, as well as a mixed-use, central business district zone.

a) Zoning Designations in study area

i) Residential

The R-2 District provides for low-density residential development, which is the major source of single-family housing. This zoning shall be located throughout the City, and allows for duplexes on corner lots only.

The R-3 District is primarily intended for duplex and multi-family dwelling structures; and the R-4 District provides for high density residential development.

The R-5 District will be applied to the historic area of the city. The purpose of this area is to maintain the look and feel of the city's with the Historic Downtown Central Business District to create uniformity in the Central Business District (CBD, described below).

The Timber Town Community Planning Area (TTCPA) District shall provide for very high density mixed use creating a pedestrian-friendly atmosphere.

ii) Commercial

The CBD zone shall apply to property located within the historic downtown section previously known as the Central Commercial (C-1) zone. The CBD intends to assure an intense mix of pedestrian-sensitive commercial, governmental and community service uses as well as hotels, offices, restaurants, artistic outlets, indoor recreational opportunities and other attractions. Residential uses are allowed as part of a mixed use environment.

The C-2 development is expected to be generally auto oriented, and intended to be aesthetically pleasing for motorists, pedestrians, and the business themselves. The zone allows for a full range of retail and service businesses.

The Highway Commercial zone shall apply to property zoned C-3 on the Comprehensive Plans Land Use maps. This zone allows large retail operations that provide for shopping for the community and its trading area.

iii) Industrial

Mixed Industrial/Commercial provides for heavy industrial uses with industrially supportive commercial uses.

Light Industrial areas (M-2) are designated for non-polluting industries, compatible with residential and commercial activities.

A manufacturing district (zoned M-3) encourages the location of uses that have a strong industrial orientation. The regulations promote uses and developments which will support the economic viability of the City; while protecting the health, safety and welfare of the public, and character of the area.

iv) Public/Semi-Public

This district is for the siting of public or semi-public (PSP) facilities. This chapter ensures that these facilities are properly located and that they are compatible with their surrounding neighborhoods. Typical uses in the PSP include public parks or schools.

6) City of Molalla Transportation System Plan

The City of Molalla's Transportation System Plan (TSP) serves as the transportation element of the local comprehensive plan. It establishes a system of facilities and services to meet long-range transportation needs with a focus on integrating transportation and land use. The TSP must be consistent with the OHP and other required plans. The Downtown/OR 211 Plan must be consistent with both the Molalla TSP and Clackamas County's Functional Classification Plan.

City of Molalla Roadway System Plan

Molalla's roadway system plan provides guidance on how to best facilitate roadway travel over the planning period.

a) City of Molalla's Functional Classification Plan
The roadway functional classification determines:
- a roadway's intended purpose;
- the amount and kind of traffic it is expected to carry;
- the degree to which non-auto travel is emphasized;
- design standards.

The functional classification plan for the City of Molalla includes four functional categories: arterials, collectors, neighborhood streets, and local streets.

i) Arterials are primarily intended to carry traffic into and out of the city. Circulation is the primary function of arterials; local access is secondary.
ii) Collectors provide some local access while facilitating mobility within the city.
iii) Neighborhood streets connect neighborhoods with collectors and arterials.
iv) Local streets provide access to adjacent land uses.

b) Street Design Standards
Street design standards are used to establish the intended degree of access and circulation of each roadway class. Specific design standards are included in the city TSP. The TSP also sets forth general guidelines for the improvement of arterial/collector intersections.

Access Management Strategies

Access management is a tool used to preserve desired roadway access and circulation standards as development occurs. The Oregon Transportation Planning Rule (TPR) defines access management as a set of measures regulating access to streets, roads, and highways from public roads and private driveways. Spacing standards for access points are established based on the posted speed of a roadway. Different standards exist for UBAs and STAs. ODOT has the authority to regulate access on Highway 211 and Highway 213, while the City of Molalla has

authority over other roadways within its boundaries. Access standards for each roadway type are included in the Molalla TSP.

a) Potential STAs and UBAs
The OHP allows the establishment of Special Transportation Areas (STAs) for segments of state highways "in which growth management considerations outweigh the need to limit access." The Molalla TSP identifies the portion of Highway 211 between Hart Avenue and Grange Street as a potential STA.

Sections of the state highway within the city but close to the city limits may be designated as UBAs. Potential UBAs on Highway 211 include the areas between Hezzie Avenue Dixon Avenues and between Cole and Mathias Streets.

Pedestrian and Bicycle Plan
The pedestrian and bicycle plans included in the Molalla TSP are primarily intended to provide connections between major activity centers (e.g., schools).

a) The following components of the pedestrian system are outlined in the Molalla TSP:
- The provision of a sidewalk network from the Molalla High School campus to the adjacent existing and future residential neighborhoods.
- The continued development and enhancement of the downtown Molalla pedestrian environment.
- The provision of appropriate sidewalk and/or multi-use trails both to and from and within all new development in the city, and to the future park in the southern portion of the City.

The TSP also recommends specific enhancements to the pedestrian environment. See also list of opportunities and constraints.

b) The Molalla bicycle plan aims to create a safe and effective bicycle network. Bike lanes should be provided along all major collectors and arterials except in downtown Molalla. Recommended enhancements to the bicycle system are delineated in the TSP.

The City will begin a park master plan that will have a large priority placed on a bicycle and pedestrian path plan.

Roadway Improvement Plan
The roadway improvement plan identifies specific improvements needed to improve safety and accommodate future growth. Brief descriptions of these projects that fall within the study area follow.

Near-term (1-5 years)

Highway 211/Highway 213
As development occurs in the vicinity of this intersection, several improvements will be needed over time, including signalization, left-turn lanes on all approaches, and northbound and westbound right-turn lanes. These improvements will be constructed on an as-needed basis, concurrent with the development of nearby parcels.

Street reconstruction projects:
- May Avenue, between 5th and 6th Streets;
- Section Street, between Molalla and Hart Avenues;
- Heintz Street, between Cole Avenue and Grange Street.

Main Street/Grange Street/Berkley Avenue To improve pedestrian safety at these intersections, and to eliminate conflicting turning movements, a raised median with pedestrian refuge is proposed in the center of Main Street to serve the existing crosswalk and to block left turns into and out of Grange Street. This improvement will require the removal of on-street parking on Main Street between Swiegle and Lola Avenues.

Pedestrian and Bicycle Projects
These projects can include installing sidewalks on major streets, constructing off-street pedestrian and bicycle pathways, striping bicycle lanes and/or constructing curb extensions at intersections.

Long-Term (6-10 years)

Molalla Avenue/Main Street
A traffic signal will be required at this location. Left-turn lanes may be needed on some intersection approaches. Constructing left-turn lanes may create need for additional off-street parking in the downtown area.

Molalla Avenue/Toliver Road
A traffic signal will be needed at this location.

Toliver Road Widening -- COMPLETED
To provide an attractive east-west alternative to Main Street, and to serve traffic from future residential development in northern Molalla, Toliver Road should be improved to major collector street standards, including a three-lane cross section, bicycle lanes, and sidewalks.

Leroy Avenue/Main Street
This intersection may need to be signalized, depending on when adjacent land redevelops, particularly the industrial area south of Main Street.

Molalla Avenue/Shirley Street
Without an extension of Heintz Street, Shirley Street will become the major east-west route in northeastern Molalla. Its intersection with Molalla Avenue will need to be signalized.

Mathias Street/Main Street
This intersection is the eastern gateway to Molalla. The current "Y" intersection should be redesigned into a more conventional form to reduce the number of potential conflict points.

Downtown Bypass (existing Highway 211 section)
Highway 211 should be widened between its future intersection with Main Street and Highway 213 to provide a three-lane cross-section, bicycle lanes, and sidewalks.

Downtown Bypass (Molalla Forest Road section)
Molalla Forest Road should be reconstructed as needed and widened between Main Street and Mathias Road to provide one travel lane in each direction, a landscaped median, bicycle lanes, and sidewalks. Access should be limited in order to preserve its function as a bypass into the future.

Downtown Bypass (Mathias Road section)
Mathias Road should be widened to three lanes, with bicycle lanes and sidewalks, between Main Street and Molalla Forest Road.

Molalla Forest Road/Main Street
In conjunction with the opening of the downtown bypass, an intersection will be required where the downtown bypass intersects Main Street.

7) Capital Improvements Plan
The following list of projects is identified on the city's Capital Improvement Plan (CIP) and within the study area for the plan.

Items in strikethrough have been completed:

Wastewater Collection:
- Toliver Road Trunk Upgrade
- ~~Molalla/Hwy 211 Sewer Improvements~~
- Highway 213 south trunk extension
- Bear Creek Trunk Upgrade
- Industrial (South) Trunk Extension

Water System Improvements:
- ~~Heintz St N Molalla Ave to N Cole St~~
- ~~South Cole St~~
- ~~Hwy 211, Shaver to Leroy~~
- ~~Toliver Road, North Molalla to Ridings~~
- ~~Grange St, E Main to Heintz St~~
- ~~3rd St, South Molalla to Eckerd~~
- ~~Robbins Rd, N Molalla to Grange St~~

Transportation Improvements:
- Reconstruct Section St from Hart Ave to South Molalla Ave
- Reconstruct Hart Ave from Section St to West Main St

Park Improvements:
- ~~Library Park~~

~~City Park~~
~~Pedestrian Trail connecting Molalla Ave to Mathias~~

Facilities:
Remodel and Expand City Hall
Design and Construct new Public Works Building

8) Clackamas County Transportation System Plan

Clackamas County owns sections of four roads in Molalla: Molalla Avenue, Feyrer Park Road, Toliver Road, Leroy Avenue and Mathias Avenue. Chapter Five of the County's Comprehensive Plan serves as the Transportation System Plan (TSP) for the county. The County coordinates with the State of Oregon, Metro, transit providers, its 16 cities and the unincorporated rural areas to carry out the TSP. The TSP focuses primarily on the County's responsibilities for its 1,435 miles of road and 165 bridges, balancing the needs of all land-based modes of travel, except rail and pipeline. The TSP includes the following sections: Roadway System Plan, Transportation Demand Management, Parking, Transit, Pedestrian and Bicycle Facilities, and Freight. A summary of goals and policies relevant to the Molalla Downtown/OR 211 Streetscape Plan follows.

Roadways

Clackamas County's Roadway System Plan provides guidance on how to best facilitate roadway travel over the planning period, including sections on Efficiency and Finance, Roadway Improvements, Functional Classifications, Access Requirements, Improvements to Serve Development, Operating Standards, Building Roads, and Scenic Roads.

a) Efficiency and Finance
The TSP includes several policies that encourage the Clackamas County roadway system to be built and maintained in an efficient manner. These policies cover:

- Using the existing road system most efficiently before building new roads, including the following Transportation System Management (TSM) strategies:
  - Access Management
  - Alternative/Modified Standards (Performance and/or Design Standards)
  - Intelligent Transportation System (ITS) applications
  - Operational Improvements
  - Parking Standards
- Emphasize maintenance of existing roadways, including developing a roadway maintenance program
- Cooperate with other jurisdictions in establishing a transportation financing plan
- Coordinate with the Oregon Department of Transportation (ODOT) in implementing the Oregon Transportation Plan (OTP), Oregon Highway Plan (OHP), Statewide Transportation Improvement Program (STIP), and with other state, local and regional jurisdictions in their roadway planning efforts.

b) Needed Roadway Improvements

The Roadway System Plan lists needed roadway improvements in the County for urban and rural areas. Map V-1b in the TSP shows rural transportation projects for the next 20 years. The following table is an excerpt from the TSP's Table V-1 and includes projects shown on map V-1b (attached) for Molalla.

Map Number	Project	Section	Description
295	Molalla Avenue/Vaughan (City of Molalla)	Highway 213 to Highway 211	Reconstruct and widen (rural)
296	Vick Road	Between Molalla Avenue and Highway 213	Widen and bring to County standards
297	Vick Road Railroad crossing	Between Molalla Avenue and Appaloosa	Construct new railroad crossing
298	Toliver Road	Between Highway 213 and Molalla Avenue	Install traffic signal curb and sidewalk widen and pave

Source: Clackamas County Comprehensive Plan, Chapter 5: Transportation, Table V-1

c) Functional Classification and Roadway Standards

Clackamas County's Functional Classification Plan includes six functional categories: freeways/expressways, major arterials, minor arterials, collectors, connectors, and local streets. Molalla Avenue and Feyrer Park Road are minor arterials, while Toliver Road, Leroy Avenue and Mathias Avenue are designated as collectors. The specific purpose and access standards for the County's minor arterials and collectors follow:

i) Minor arterials connect collectors to higher order roadways and carry moderate volumes at moderate speeds. Direct access from these streets is limited, however to a lesser degree than major arterials. The number and location of driveways is also limited. Land access is restricted if an alternative is available and roadside parking is also generally restricted. Minor arterials can be between 2 and 5 lanes wide, with a minimum right-of-way width of 60'-115' and a paved width of 36'-90'. Landscape strips are required unless acquiring right-of-way is impractical due to wetlands, topographic conditions, resource protection, or preexisting development patterns. Sidewalks are required in urban areas and bikeways are required on all minor arterials.

ii) Collectors are the principle carrier within neighborhoods or single land use areas. These streets link neighborhoods with major activity centers and arterials and are generally not intended for through traffic. Collectors carry low to moderate volumes of traffic at low to moderate speeds. New collectors should intersect minor arterials rather than major arterials. Collectors provide access to abutting land and to the arterial system. Access to individual parcels and roadside parking are usually allowed. Minor arterials can be between two and three lanes wide, with a minimum

right-of-way width of 60' -85' (less if volume and land use density are low and terrain allows) and a paved width of 32'-61'. Landscape strips are required unless acquiring right-of-way is impractical due to wetlands, topographic conditions, resource protection, or preexisting development patterns. Sidewalks are required in urban areas and bikeways are required on all minor arterials.

d) Access Requirements

It is the County's policy to plan and control access onto roads within the County, as shown on Table V-5, for urban areas and according to the American Association of State Highway and Transportation Officials (AASHTO) guidelines for rural areas, for both new and existing uses, and coordinate with the Oregon Department of Transportation for access control on state highways. Access standards need to be applied in a flexible manner that maintains reasonable access to property when access cannot be denied. Access requirements by functional classification are:

i) Minor arterials:

- The preferred spacing of signalized intersections is as follows: along minor arterials; at least 600 feet apart.
- Street access guidelines: If feasible, only collectors, connectors or other arterials should intersect arterials.
- Non-signalized intersections may be constructed along major arterials if they are located at least 400 feet from the nearest signal (300 feet from the nearest signal along minor arterials). Such intersections may be required to offer circulation from neighborhoods but there should be no expectation of future signalization.
- Street networks for Community or Design Plan areas shall be implemented as shown in Chapter 10: Open Space, Parks and Historic Sites of the County's Comprehensive Plan.
- Alternative spacing and access types may be used if an access management plan ensures that the arterial will operate within the acceptable standard.
- Driveway access guidelines: If feasible, access for developments located on arterial streets shall be located on streets with a lower functional classification. Joint accesses between developments shall be encouraged. Driveway accesses shall not be located within 400 feet of an intersection along major arterials or 300 feet of an intersection along minor arterials except when it is demonstrated that no other alternative is feasible.
- Single family residential driveways should not access a minor arterial.
- Access management targets shall be implemented when appropriate as shown in Chapter 10: Open Space, Parks and Historic Sites of the County's Comprehensive Plan.

ii) Collectors:

- If feasible, single family driveways should not access a collector street. When single family residential driveways are allowed, driveway spacing should be at least 100 feet, with shared access used to increase distance between driveways.
- Commercial, industrial, multi-family, and institutional uses may have exclusive driveway access to a collector, with a minimum driveway spacing of 150 feet when feasible.

e) Improvements to Serve Development

TSP policies regarding serving development with transportation may impact the Molalla Downtown and OR 211 Streetscape Plan infill strategies. Relevant policies include:

- Require right-of-way dedication, on-site improvements to the applicable roadway standard, and off-site improvements for new developments and land divisions necessary to handle expected traffic loads and travel by alternative modes.
- Require development to be served by adequate roadway facilities.
- Require implementation of a local street network for undeveloped sites. Existing streets shall be extended to provide a direct, connected street system.
- Where appropriate, develop and implement neighborhood traffic circulation plans intended to improve circulation while minimizing neighborhood disruption and environmental problems.
- Encourage a relationship between land use and roadways which decreases average trip length.
- Discourage through trips on local, connector and collector roadways.
- Develop neighborhood traffic calming policies that will enable the County to address inappropriate travel patterns and speeds.

There are also several requirements for new streets in new developments, but it is unlikely that new streets built in the Downtown/OR 211 study areas will be owned by the County, so these do not apply here.

f) Operating Standards

The County TSP requires that jurisdictions evaluate the capacity needs for regional roadways within Metro's boundaries using the Regional Motor Vehicle Performance Measures. Molalla is not within Metro's boundaries, so these do not apply to the Molalla Downtown/OR 211 Streetscape Plan.

g) Building Roads

The TSP requires that jurisdictions consider all transportation modes when building new roads or widening existing roads to maximize efficiency and safety for all users of the road.

h) Scenic Roads

There are no County designated Scenic Roads in the Molalla Downtown/OR 211 study areas.

Transportation Demand Management

Clackamas County promotes Transportation Demand Management (TDM) strategies that will help the county meet its Transportation Planning Rule (TPR) requirement for reduction in Vehicle Miles Traveled (VMT) per capital over the next 20 years. Goals for TDM include:

- Reduce single occupant vehicle trips on the roadway network during peak travel demand periods.
- Reduce Vehicle Miles Traveled per Capita by 10% by year 2020 (using year 2000 as a base year).
- Work with businesses in Clackamas County to support their efforts in reducing single occupant vehicle commuting, which in turn will reduce Vehicle Miles Traveled per Capita. Strategies include: subsidized bus passes, company owned vanpools, preferred parking for carpools and vanpools, bicycle racks, and flexible work schedules.

Parking

The goal of Clackamas County's parking standards is to insure that parking is provided in a manner that is convenient to users of all transportation modes. Relevant County parking policies include:

- Set minimum and maximum limits on allowed off-street parking relative to building size, location and use, and adjacent land uses.
- Encourage off-street parking in commercial, industrial, and high density residential areas to be at the sides or rear of buildings where practical, with buildings oriented to the street in a manner that is convenient to pedestrians and aesthetically pleasing to passers-by, but does not interfere with sight distance on the roadway, or preclude road widening.
- Existing curbside parking along arterials and collectors may be removed to allow the striping of bike lanes, construction of travel or turning lane improvements or for increasing sight distance.
- Allow developments along transit routes to decrease their parking area requirements if they provide pedestrian and transit amenities.
- Allow commercial and industrial developments to decrease their parking area requirements if they provide and maintain ridesharing programs.
- Allow shared parking where feasible, such as within mixed use development and where adjacent land uses are compatible. Such sharing of parking can be used to help satisfy compliance with parking standards.
- Increase on-street parking in residential areas by minimizing the width of driveway curb cuts.
- On-street parking may be prohibited in front of schools as needed to assure student safety and school security, and shall be reviewed on a school by school basis.

Transit

The TSP's map v-6b (attached) Molalla's transit system currently has a County designated "local transit district route" that runs along 213 and turns onto 211 (to Oregon City). There are also local bus routes that run along Molalla Avenue, Mathias, Toliver and cross Feyrer Park Road. Transit systems running on these roads are under County jurisdiction for short segments and therefore must take County transit policies into account. County policies that may affect the Molalla Downtown and OR 211 study areas include:

- Work with transit agencies to identify existing transit deficiencies in the County, needed improvements, and park and ride lots to increase the accessibility of transit services.
- Major developments or road construction projects along transit routes shall be required to include provisions for transit shelters, pedestrian access to transit and/or bus turnouts where appropriate.
- Emphasize corridor or roadway improvements to increase transit speed, convenience and comfort.
- Coordinate and cooperate with Tri-Met and other transit agencies to provide transportation to the elderly and people with disabilities.
- Promote park and ride lots, bus shelters and pedestrian/bikeway connections to transit.
- Emphasize transit improvements that best meet the needs of the County, including more east-west connections and service between the County's industrial and commercial areas and medium to high density neighborhood areas.
- Protect neighborhoods, recreation areas and pedestrian/bikeways from transportation related environmental degradation.
- Require pedestrian and transit-supportive features and amenities and direct access to transit through the Development Review Process. Such amenities may include pedestrian/bikeway facilities, street trees, outdoor lighting and seating, landscaping, shelters, kiosks, strict standards for signs, and visually aesthetic shapes, textures and colors. Parking should be at the rear or sides of buildings.
- Bus routes will be improved and coordinated with financing and implementation of necessary roadway improvements and in cooperation with transit service providers.
- Provide high capacity transit to the Oregon City and Tualatin areas, and in the I-205 corridor including the Gateway Transit Center. The purpose is to relieve traffic congestion, provide for transportation alternatives to the automobile, and to promote the economy of the Oregon City and Tualatin areas and the I-205 Corridor.

Pedestrian and Bicycle Facilities

Clackamas County's vision is to create an environment which encourages people to bicycle and walk on networked systems that facilitate and promote the enjoyment of bicycling and walking as safe and convenient transportation modes. Policies regarding pedestrian facilities pertain to county-owned roads in Molalla. Map v-7b (attached) in the County's TSP, which shows existing and planned bikeways in rural areas, indicates proposed bikeways along OR 211, Molalla Avenue, Feyrer Park Road, Mathias and Toliver Road, as well as proposed multi-use trails along both Creamery Creek and Bear Creek. Maps v-7a and v-8 pertain to urban areas and do not include the Molalla Downtown/OR211 study area. The following pedestrian and bicycle policies are relevant to the Downtown/OR 211 Streetscape Plan:

- Provide networked systems of walkways and bikeways connecting neighborhoods, transit stops, commercial areas, community centers, schools, parks, libraries, employment places, other major destinations, regional bikeways and walkways, and other transportation modes.
- Identify walkway and bikeway improvements necessary to ensure direct and continuous networks of walkways and bikeways on the county road system.

- Support acquisition and development of multi-use paths on abandoned public and private rights-of-way.
- Encourage bicycle and pedestrian access across rivers and other natural barriers.
- Promote grid-street development patterns to provide direct routes from neighborhoods to destinations frequented by pedestrians and bicyclists.
- Construct all bikeways, and trails as designated on map V-7b.
- Construct all walkways designated in this Plan and any other walkways proposed, according to the current county design standards, the American Association of State Highway and Transportation Officials (AASHTO) standards, and the Americans with Disabilities Act (ADA) standards.
- Construct all bikeways designated in this Plan and any other bikeways proposed, according to the current standards in the Oregon Bicycle and Pedestrian Plan and the American Association of State Highway and Transportation Officials (AASHTO) standards.
- The implementation of bikeways and sidewalks shall be considered in all new collector or arterial construction or reconstruction, even if not designated on Maps V-7a, V-7b, and V-8.
- Require that new development include construction of pedestrian and bikeway connections within the development and between adjacent developments for the purpose of increasing non-motorized mobility.
- Coordinate with pedestrian, bicycle, and trail master plans of the Oregon Department of Transportation, the United States Forest Service, Metro, parks districts, and city parks departments to achieve a safe and convenient off-road trail system connecting to the on-road pedway and bikeway network.
- Coordinate the implementation of pedways and bikeways with neighboring jurisdictions and jurisdictions within the county.
- Support the continuation of the "Bikes on Transit" program on all public transit routes.
- Require new development to provide bicycle parking, and initiate a program for adding bicycle parking in areas frequented by bicyclists.
- Encourage the provision of appropriate supportive facilities and services for bicyclists, including showers, lockers, bike racks on buses, bike repair and maintenance information/clinics, and secure bicycle parking.
- Support continuation of current (or equivalent) federal, state, and local funding mechanisms to construct county pedestrian and bicycle facilities.
- Develop dedicated funding sources to implement the Clackamas County Pedestrian and Bicycle Master Plans.
- Develop routine maintenance standards and practices for pedestrian facilities and on-road and off-road bikeways, including traffic control devices.
- Inform the public of their responsibilities for sidewalk and bikeway maintenance.
- Encourage the provision of street lighting for the purpose of increasing the visibility and personal security of pedestrians and bicyclists.
- Construct separate multi-use paths in rural areas according to American Association of State Highway and Transportation Officials (AASHTO) standards where travel lanes or wide paved shoulders along roadways may be unacceptable to pedestrians or bicyclists.

- In Rural Communities, construct walkways adjacent to or within areas of development, such as schools, businesses, or employment centers near or along highways.

Freight

Freight movement is an important part of the County's economy, which has a strong job base in the sectors of transportation and wholesale trade. Modes impacted by the County TSP include rail and trucks. Policies that deal with these modes are included below.

a) Rail

- Reduce the number of at-grade crossings from those that currently exist.
- On new or reconstructed arterials or urban collectors, prohibit at-grade crossings of heavy rail lines without traffic restrictive safety devices unless train traffic is very low.
- Encourage use of the rail system for freight and passenger high speed rail service.
- Encourage additional stations for heavy rail service.
- Work with the private transportation industry, Oregon Economic Development Department, Port of Portland and others to identify and realize investment opportunities that enhance freight mobility and support the County, Regional and State economy.

b) Trucking

Maintain a truck circulation plan, as shown on Map v-10 (attached) in the county TSP, for movements of freight on arterial roads where minimum impact will occur to neighborhoods, and industrial areas will have the service they need. Oregon 213 is designated as a freight route on Map v-10.

9) Buildable Lands Inventory

The City conducted a buildable lands inventory to identify acreage available for development in each zone. Buildable lands are vacant and do not have any identified environmental constraints that would prohibit development. One-quarter of this acreage is not considered "buildable" because it will be required for public facilities. Redevelopable land is included in the buildable lands inventory.

The following table identifies the quantity of buildable land in the City of Molalla under each existing zoning designation.

ZONE	TOTAL ACREAGE	DEVELOPED	UNDEVELOPED	WETLANDS	DEVELOPED WITH OTHER USES
R-1					
TOTAL	*354*	*225*	*93*	*22*	*14*
R-2					
TOTAL	*22*	*14*	*6*	*1*	*1*
R-3					
TOTAL	*151*	*90*	*39*	*12*	*10*
C-1					
TOTAL	*32*	*20*	*2*	*0*	*10*
C-2					
TOTAL	*58*	*18*	*23*	*10*	*7*
M-1					
TOTAL	*104*	*41*	*30*	*26*	*7*
M-2					
TOTAL	*340*	*71*	*139*	*114*	*16*
PSP					
TOTAL	*189*	*188*	*0*	*1*	*0*
Roadways	165				
TOTALS	***1415***	***667***	***332***	***186***	***65***

These numbers will change again by the time the City finishes the updates to the comprehensive plan. The City plans to update the buildable lands on a yearly basis.

10)Local Wetlands Inventory

A 2001 wetlands inventory identified seven wetlands within the study area.

11) Opportunities and Constraints

Transportation-related opportunities and constraints identified in a detailed analysis of Molalla's transportation system follow, listed according to mode (opportunities are denoted by a + sign, constraints by a - sign):

Pedestrians

- The downtown core and new development are the most likely areas to find sidewalks on both sides of the street. (+)
    a) Many other areas of the city have partial or no sidewalks—may constrain people's ability to walk to downtown (-)
    b) No sidewalks in the vicinity of several schools (-)
- Current development standards call for sidewalks with all new development (+)

Bicycles

- Very few bicycle facilities in Molalla. (-)

a) Bike lanes on portions of Toliver *(at the time of the 2001 TSP; bike lanes have been installed on both sides of the street)*
b) Shared-use path along north side of Highway 211 from Leroy to Shaver
    i) Shared-use paths adjacent to streets pose at least two potential problems: (1) side-street motorists don't expect "wrong-way" bicyclists, (2) some main-street motorists feel that all bikes should use the shared-use path (which requires bikes to stop or yield at each street), rather than share the lane on the main street. (-)
c) Current development standards call for bike lanes on collectors and arterials outside the downtown core (pavement used for parking lanes in downtown). (+)
d) *Bicycle lanes are present on East 5th Street from S. Molalla Avenue to Stowers Road.*

Transit

- Transit service has expanded considerably since TSP was written (+)
    a) New in-town circulator
    b) New route to Canby
    c) Saturday service
- Prior issue with Oregon City route not being readily accessible to potential riders has been addressed with new circulator route and timed transfer.

Trucks

- Truck traffic is forced through Molalla in part because of length and weight restrictions on County roads south and east of the city. (-)
- Trucks can have turning difficulties at the Main/Molalla intersection. (-)
- Molalla Forest Road is owned by the City and has long been viewed as an opportunity to provide a downtown truck bypass (+)
    a) However, most of it is outside the UGB (goal exception issues) and needs significant upgrading to be usable as a bypass (requiring a large portion of the assumed available transportation funding between 1999 and 2019). (-)

Rail

- Rail line exists north of Highway 211 (+)…
    a) …but has no customers to serve. (-)

Roadways

- Toliver, Shirley, some portions of Molalla Avenue, and Highway 211 west of Highway 213 were rated in poor pavement condition in 1998. (-)
- In 1999, all intersections operated at LOS "C" or better (pretty good) (+)
    a) Highway 211/Highway 213 (then an all-way stop) and Main/Molalla had the highest average p.m. peak hour delays (12-13 seconds)
- In 1996, Highway 211/Highway 213 and Main near the former railroad crossing were in the top 20% of safety-improvement locations in rural Clackamas County, based on number and severity of crashes
    a) However, other data found no locations around Molalla with crash rates significantly above average.
- Some important roadways had substandard lane and/or shoulder widths:
    a) Highway 211 from Highway 213 to Molalla Avenue, and northeast of Mathias (lanes and shoulders)
    b) Molalla Avenue north of Main (shoulders)

    c) Mathias Road (shoulders)
    d) As development occurs, frontage is improved to current standards.
- The Y-intersection of Highway 211/Mathias has unusual geometry; various improvement concepts were identified.
- The former mill site provides opportunities to create a connected road network and allow 5th to serve as a parallel east-west route to Main Street. (+)
    a) 5th was originally to connect to Ridings, to create a continuous collector street from the east to north sides of Molalla, but the development of BiMart precluded that option; 5th is now planned to connect to Leroy. (-)
- Portions of Main qualified for ODOT Special Transportation Area (Water to Grange) or Urban Business Area (Hezzie to Dixon, and Cole to a few hundred feet northeast of Mathias) designations.
    a) Allows higher traffic levels before improvements are required (+ or -).
    b) Can qualify road for state ped/bike funding. (+)

Future

- Not enough land within urban growth boundary (UGB) to accommodate projected 20-year housing need.
- Where growth occurs, it will have transportation and community impacts.
    a) Growth to the south and east generally created more future roadway improvement needs than growth to the north and west.
    b) Planning Commission at the time favored growth to the south and east, in part to try to get those residents to shop at downtown businesses on the way home, rather than never having to pass through downtown to and from worksites in Salem, Portland, and elsewhere.
- 2019 roadway needs not yet built include:
    a) Main/Molalla (traffic signal), Molalla/Toliver (traffic signal), Leroy/Main (possible traffic signal), Molalla/Shirley (traffic signal), Mathias/Main (intersection reconstruction)
    b) Raised median on Main at Grange and Berkeley streets, because of left-turn conflicts and to provide a refuge for a pedestrian crossing.

Introduction

Downtown Molalla is home to a wide variety of architectural styles and construction types. Its commercial, residential, agricultural, industrial, and institutional buildings also represent a range of eras, dating as far back as the late nineteenth century and as recently as the early twenty-first.

Like much of the West Coast, Molalla has a number of bungalows in its Downtown, as well as a mixture of other residential types, including Cape Cods, townhouses, ranches, and trailer homes. The significant institutional buildings date to the mid-twentieth century.

Agro/industrial shed buildings are sprinkled throughout Downtown, and some of their design elements, especially the corrugated metal, have been incorporated into other commercial buildings. There are a number of Western Storefront buildings, with large windows, significant awnings, and false fronts. There are also many post-industrial, auto-oriented buildings (including strip malls and stand-alone structures), constructed primarily of concrete.

There are also several eclectic buildings Downtown that individually include elements from a range of architectural styles.

TGM: Downtown Development & OR 211 Streetscape Plan
Downtown Molalla Architectural Survey

Agricultural / Industrial

As a rural community with its roots in agriculture and timber, Molalla has its share of buildings initially constructed for agricultural / industrial purposes. Several of the buildings in the Downtown core reflect this heritage, which can be most clearly seen in the image to the upper left, with its overall shed appearance, moderately-pitched roof, horizontal wood siding, large, sliding equipment door, and metal roof. The building directly to the left represents the same construction type, with some more recent modifications, such as the updated windows, garage, and commercial storefront.

The outskirts of Downtown contain several modern shed buildings. These structures are characterized by their high floor-to-ceiling heights, open and airy interiors, low-slung roofs, and large openings for the storage of equipment. They are often clad in corrugated sheet metal.

Many of the characteristics of the city's agro/industrial shed buildings can be seen in more contemporary commercial structures. The auto shop to the left represents a smaller version constructed of concrete. The commercial building to the right is built at a larger scale and features the same low-pitched roof with a modified showroom interior.

Many of Downtown Molalla's commercial buildings that are found along Main Street and Molalla Avenue can be characterized loosely as Western Commercial Storefronts. These buildings often have the appearance of a single-story building - although some two-story versions do exist - with a prominent false front or parapet as a defining feature. Behind these facades are buidings that are often 1.5 stories tall, often with a pitched roof. Many of these buildings feature large storefront windows and an awning or overhang to provide protection from the elements.

Several of these storefront buildings have seen significant modifications over the years, including the application of additional materials and design details that have distanced them from their historic roots (although they often build on a Western "theme"). For example, the White Horse building (pictured above) has a Dutch Colonial barn element and signature white horse as the central features of its facade. This building also has a Western mansard roof (shingled), a design element utilized on several other commercial buildings Downtown (including the Molalla McCulloch Shop in the upper left). Faux stone siding, added perhaps in the 1960s, also appears on many of these Western storefront buildings (below).

Western Commercial Storefront

TGM: Downtown Development & OR 211 Streetscape Plan
Downtown Molalla Architectural Survey

The building above contains several of the current defining features of Downtown Molalla's Western Storefronts. Facing Main Street is a highly-crenelated (with repeated square indentations like those in a battlement) parapet, a prominent awning that divides upper and lower floors, and faux stone veneer on the lower floor. Around the corner (facing a parking lot) is a heavy Western mansard roof form (here broken by dormers).

Western Commercial Storefront

While many of the Western Storefront buildings date their original construction to the early twentieth (and possibly late nineteenth) century, this design aesthetic has been utilized by more recent builders and developers. The shopping complex shown here is of late twentieth century design, although it still utilizes a Western false front, slat siding, and prominent awning (here developed into a full arcade).

Early 1900s Commercial

Several of the Downtown commercial buildings are 'stand alones' in that they represent an architectural style or period not found elsewhere in Downtown. These buidings contain historic references - and may indeed be strong markers of the City's historic past.

The building to the upper right has the neoclassical appearance of a former bank building - with both a pediment (wide, low-pitched, triangular gable) and dominant columns. The building to the right has Moorish details (rounded crosses and scalloping).

The building to the right includes details of the Spanish Colonial style, including its reverse-curve pediment and the terra cotta roof shingles seen on either end. This commercial building is noteworthy for its transom windows, an element which may have existed in many other Downtown buildings - but which have since been covered up by awnings and / or the application of false fronts.

The building on the northwest corner of the Main / Molalla intersection has a pediment (which may at one time have contained a storefront frieze), large storefront windows, and regular architectural bays (marked by brick columns and awnings). The form of this building seems standard for an early-twentieth-century commercial building, but many of its original details have been lost over the years through a series of modifications, including the assumed covering of windows along its south face.

The building to the right has its roots in the same heritage that produced both the City's farmhouses and the working agricultural buildings. This structure combines elements of both, enjoying a seamless positioning among other commercial buildings (see p. 1). The retail configuration of its ground-floor only adds to the building's intriguing nature.

TGM: Downtown Development & OR 211 Streetscape Plan
Downtown Molalla Architectural Survey

Like most cities and towns across America, Downtown Molalla has its share of post-World War II, auto-oriented commercial buildings. These buildings are low-slung, concrete, stand-alone buildings that are often wrapped by parking. Some, like the building to the left above (which has the appearance of a '60s-era grocery), feature a curved roof. Several of these buildings, including the two featured above, have a faux-stone veneer similar to that seen on several of the Western storefront buildings. While they were originally built to cater to the auto, these buildings do enjoy a positive relationship to the street (i.e. they are built to the street with little setback) - rather than to their adjacent parking lots.

Post-WWII Commercial

Although of more contemporary, concrete construction, several of the Downtown commercial buildings have utilized the design vocabulary of the Western and/or agricultural / industrial buildings prevalent elsewhere in Downtown. The bank to the left uses brick on its ground floor, but has covered its upper level with vertical wood slats and divided the building with a Western arcade. The NAPA auto parts store has utilized the vertical agricultural sheet metal to encase its building and awning. Interestingly, this application has been painted the signature NAPA blue, thus turning the entire building into a sign, in a manner more striking even than the White Horse (discussed elsewhere).

Auto-Oriented Commercial

In addition to the strip commercial development and the post-war commercial buildings (described elsewhere), Molalla also has a variety of more recent, stand-alone commercial buildings that are clearly auto-oriented. Architecturally, this grouping is diverse, from the low-slung 50s-era ranch (with prominent eaves, above) to modified agro/industrial concrete buildings (below). These buildings are often set back from the street, with parking and/or auto access placed between the building and the street. Sidewalks, when present, are often marginalized by driveway curb-cuts and the provision of parking stalls. Drive-throughs are often important features, such as with the 60s-era bank building pictured to the left.

In some cases, the drive-through becomes the dominant design element, such as with the *porte-cocheres* of this utility provider (left) and this auto dealership (right). (A *porte-cochere* is a roofed structure covering a driveway at a building entrance.) (Note the postmodern effect of the trim and use of various materials on the utility offices.)

Some buildings, such as that pictured to the far left, have a more temporary feel. Smaller, built from a variety of lighter materials, these drive-up structures often occupy otherwise unimproved sites and cater to drive-by traffic. Others, such as the auto shop on the right, represent a rather simple (somewhat more permanent) concrete, tilt-up construction type.

The structures to the left epitomize more recent auto-oriented developments. These buildings are wrapped in asphalt parking areas, to which the structures are oriented. The building to the far left features a significant *porte-cochere*, while the near one (given its function as a tire shop) features large openings to allow for the entry of automobiles.

TGM: Downtown Development & OR 211 Streetscape Plan
Downtown Molalla Architectural Survey

Strip Commercial

Downtown Molalla has its share of 70s-era strip malls. These concrete tilt-up buildings are auto-oriented commercial developments that have a single face that fronts a parking lot. The back-sides (example below) present a blank wall to the surrounding community.

Strip commercial developments (including those pictured here) often have a prominent central element, such as a pediment or sign frieze (i.e. “Molalla Thriftway”) that serves to both break up a rather monotonous architectural character and signify the location of the anchor tenant.

There are several institutional buildings located Downtown. One of the most prominent is the neotraditional Fire Station building (left), which underwent significant modification in the early 2000s.

Institutional

The Molalla City Hall is an interesting, 1950s-era, low-rise institutional building. Built of post-and-beam construction, its hard, rectangular forms represent a heavy form of mid-century modernism.

The complex that houses both the Clackamas Community College and the Molalla Public Library is of the type of concrete, tilt-up construction common to post-war school buildings. It is marked by an overall lack of fenestration.

The nineteenth-century former church building currently occupied by the Greenstone Montessori School contains a variety of styles and references that have been combined for dramatic effect. It has modest Queen Anne details in the steeple and gable and Palladian details on the entry overhang. The windows, meanwhile, represent a type of carpenter Gothic.

Eclectic / Composite

The Molalla Funeral Chapel building has clear European influences - chiefly Italo-Germanic. Like the nearby church building, it also contains a variety of styles that have been brought together. Its defining roof is a jerkinhead, a medieval form that experienced a revival in the late nineteenth and early-twentieth century. Its main entrance and current stucco-cladding suggest an Italian villa, while the Palladian entrance on its west side hints at neoclassicism.

The building currently occupied by the Pacific Learning Center clearly references the log-cabin designs of the early frontier. However, it's sharp, double-pitched dormers are unique, and its gables are clearly Dutch Colonial.

The Craftsman-style bungalow has its roots in California, and is prevalent throughout much of the Northwest. Bungalows are common in Downtown Molalla, particularly in the residential neighborhood south of Main and east of Molalla. Bungalows are often one or one-and-a-half stories, and are generally characterized by a low-pitched roof, wide eaves with exposed rafters, and a front porch with square supporting columns. They also can have stone chimneys and gabled dormers, as well as "built-in" features in their interiors. Craftsman homes often contain details that exhibit a high-degree of carpentry skill (hence the name) and stylistic woodworking, such as is seen in the porch to the right.

Downtown Molalla also contains variations on the bungalow model. The first image at right shows a Craftsman-inspired home with a full two stories, while the one on the far right shows a stucco-clad single-story version that has been converted to a commercial use.

Many of the bungalows in Molalla have been modified from their initial Craftsman appearance. The first image to the right shows a bungalow whose porch has been rebuilt with Victorian styling. The second image contains a bungalow that has seen more serious renovations, including window modifications and the addition of new siding.

Residential Bungalow

Given the city's rural location and historic link to agriculture, it is not surprising that a variety of farmhouses can be found throughout Downtown Molalla. American farmhouses cannot be strictly defined, as they collectively represent a wide variety of European influences that have been mixed together to form a residential 'frontier vernacular.' Those that exhibit clear symmetry have their roots in the English Colonial style (which also provides the gabled roof). Classical details and the typical white paint is derived from Greek Revivalism, while steep, hipped roofs and glass-paned doors demonstrate a French influence.

Many of Molalla's farmhouses are long and narrow, with a tall ground floor configuration originally designed to take advantage of natural ventilation. Upper stories are small, with space reduced by steep-pitched roofs. Some of the farmhouses have dormers, although it is not always clear whether these were original to the design or represent a later modification. Note that the farmhouse to the left has subtle Victorian styling, as evidenced by the scale details beneath the prominent gable.

Downtown also has some statelier farmhouses, with full second stories, truncated hipped roofs, windows accentuated by shutters, and large, noteworthy porches.

American Farmhouse

A variety of vernacular residential styles are found throughout the neighborhoods surrounding the Downtown core. To the left are two modified Cape Cod style homes, characterized by their symmetry (with main door at center), steep roofs, and side gables. Significant modifications to the classic cape design include dormers (left) and aluminum siding (right).

Vernacular Residential

While the Craftsman bungalows date to the early 20th century, much of Downtown's single-family housing was built following World War II. The house above is a ranch-style that has been modified since its construction (c. 1950s). The house to the far left is a slab-on-grade ranch, while the home to the right is of a 1980s neotraditional suburban style.

Downtown Molalla also has its share of higher-density housing and mobile homes. The image on the left shows 1980s-era wood-frame townhouses; the photo on the right is of single- and double-wide mobile homes found in the northeast quadrant of Downtown.

Also represented is an interesting modern one-off of a style not found elsewhere in Downtown. This post-and-beam commercial building appears highly-organized and logical. It features prominent storefront windows and a flat roof form with deep overhangs.

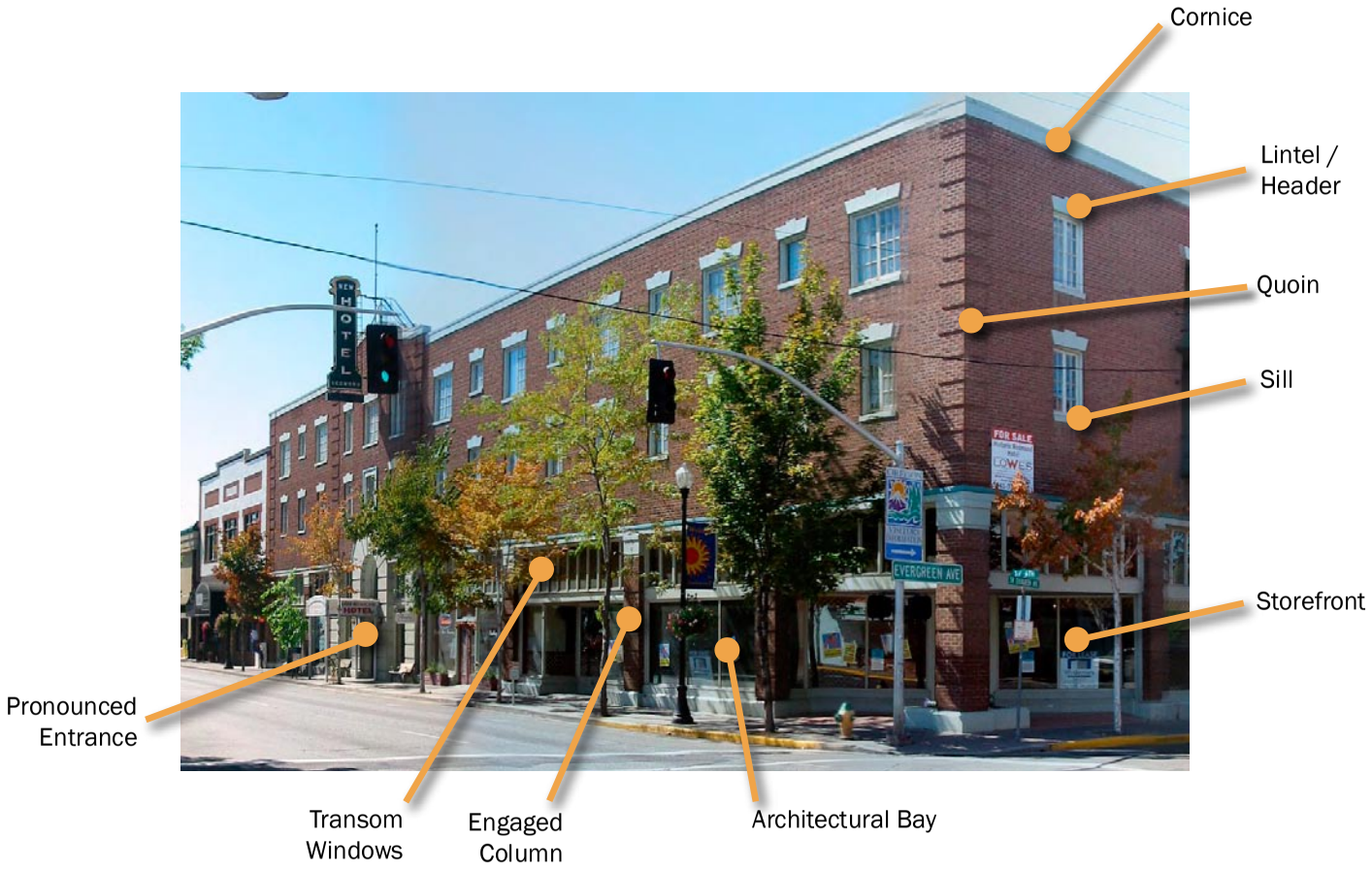
Miscellaneous

The two buildings to the right are typical examples of mid-century motel and apartment designs. Both are wood-frame, garden-style walk-ups with exterior corridors. The Pioneer Plaza building features T-111 siding.

The Flat Iron is an interesting jumble of agricultural, residential, and commercial elements found elsewhere Downtown. Its basic form is that of an early 20th-century farm building, with a more-recent metal roof. (The residential dormers have also have sheet metal.) The storefront addition features both a parapet and western decoration (the boot & trailer).

The “General Store” to the right represents a unique birdhouse aesthetic, encapsulating the key details of Western storefront commercial buildings.

Architectural Design Elements



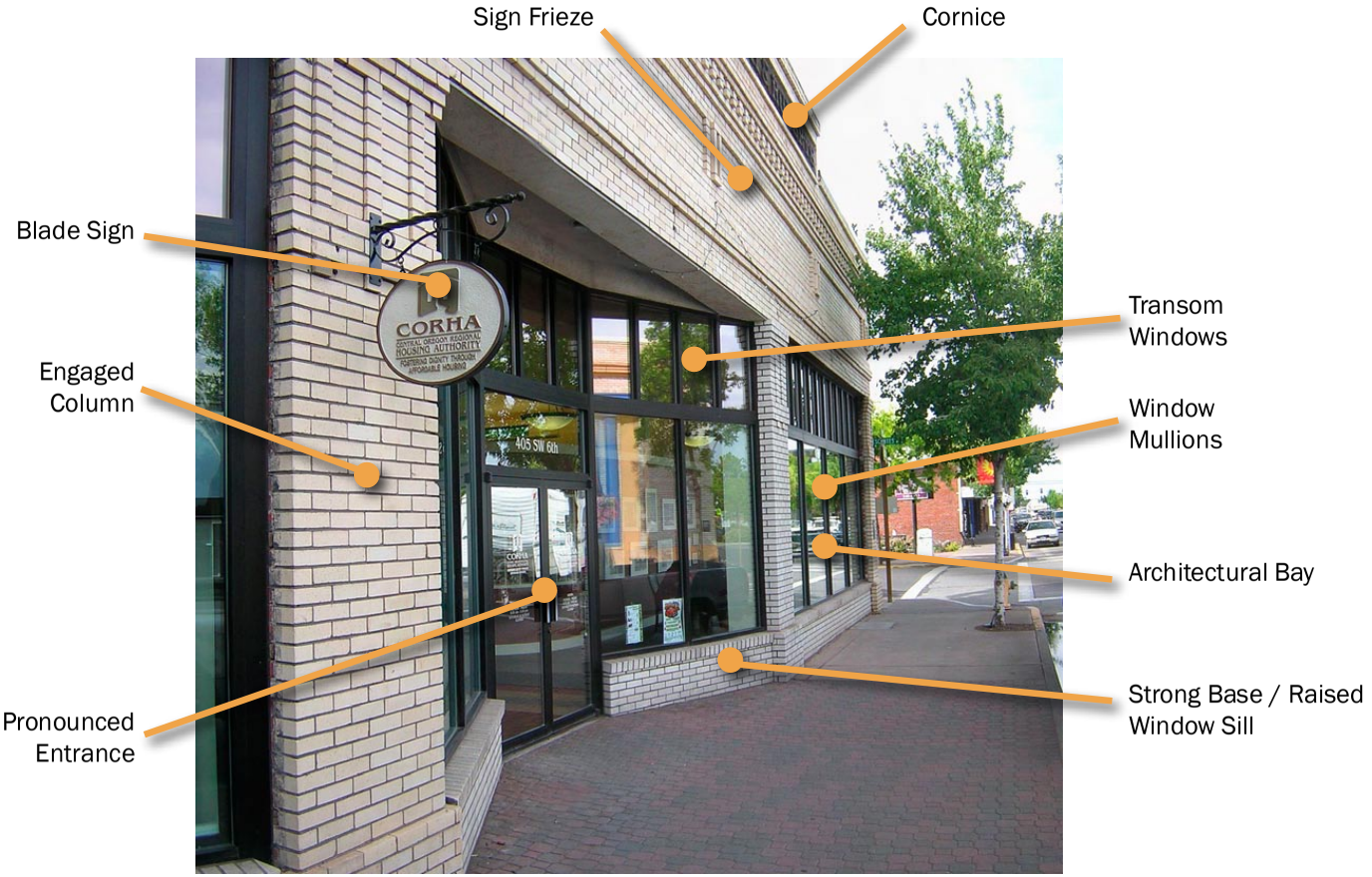
SERA

Brief Glossary of Architectural Design Terms

1

July 2006

Architectural Design Elements



Belt Course - a horizontal band or molding set in the face of a building as a design element (also called a ***string course***).

Blade Sign - Commercial signage that projects at at 90-degree angle from a storefront or business (usually 10-12' above the ground).

Belt course, here distinguishing ground floor and second floor

Blade signs

Chamfer - to cut off the edge or corner of.

Cupola - A small domelike structure surmounting a roof or dome, often used as a lookout or to admit light and air, or to define a corner.

Turret – a very small and slender tower attached to a larger building.

Chamfered buildings and elements such as turrets or cupolas can help define corners and intersections as important gathering places.

<u>Architectural Design Standards</u>:
A palette of objective, design-oriented elements that help ensure that proposed development conserves and enhances the recognized value of a site, building, and surrounding area.

<u>Development Standards</u>:
Required land use regulations that guide how sites and buildings can be developed

Arcade – an exterior covered passageway along a building façade that is open to the street frontage.

Awning – an overhead cover extending above the sidewalk (usually above windows and doors) as a shelter and/or sunshade (aka ***canopy***).

Awnings, building overhangs, and arcades can help protect pedestrians from the elements while providing a pleasant retail environment.

Bay - Architectural bays are those zones between the outside edges of an engaged column, pilaster, post, or vertical wall area. In successful retail or commercial storefronts, these bays are no more than 30' on center.

Distinct architectural bays can help break up a building while distinguishing its ground floor and improving its appeal to passersby.

Clerestory - the upper level of a room that extends beyond the single-story height; often penetrated by windows.

Transom – a horizontal glass plane, typically encased in a wood or metal frame that separates the storefront from the upper façade.

Transom windows allow more light into a ground floor clerestory, allowing for light and airy retail or office spaces

Tri-Partite Facade - Building frontages that have a clear and distinct base (ground floor), middle, and top (often defined by the cornice).

Cornice - decorative projection or crown along the top of a wall or roof.

The variation between ground floor and upper story colors and window types, the addition of upper-story balconies, and the use of sign bands can all help distinguish the middle of a building from its ground floor base. Distinct cornice lines or roof forms help to visually terminate the upper edge of the building.

Fenestration - the arrangement of windows in a building to provide interior light; also used as decorative elements in a façade.

Lintel - horizontal beam used as a finishing piece over a door or window (also called a ***header***).

Sill - The horizontal member that bears the upright portion of a frame, especially the horizontal member that forms the base of a window.

Mullion – a vertical post or upright element dividing a window or other opening into two or more sections.

Windows with unified lintels and sills

Projected window sills help define a strong base

Integrated window mullions

Storefront frieze

Frieze – a decorative horizontal band, as along the upper part of a wall in a room; often used for signage in modern buildings, but derived from classical architectural principles.

Kick Plate – a thickened bottom rail at the base of a door that holds the bottom of a glazed panel up away from the ground.

Prominent, recessed entry that features transom windows, large glass entry doors (with kick plate), and flanking windows.

Medallion – a decorative element set into the upper portion of a building façade periodically, typically aligning with columns or pilaster.

Pilaster – a rectangular or round column or shallow pier attached to a wall, constructed to coordinate with the style of the building.

Building lighting, medallions, and transom windows

Pilasters can help break up a building facade, while defined footings can help anchor a ground floor at a human scale.

Quoin - An exterior angle of a wall or other piece of masonry or any of the stones used in forming such an angle, often being of large size and dressed or arranged so as to form a decorative contrast with the adjoining walls.

Parapet – a low, solid, protective screening or decorative wall as an extension of exterior building walls vertically beyond the roof or deck level.

Quoins (left) help define a building's corner, while a parapet with a cornice helps define a building's top

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TECHNICAL MEMORANDUM #3

Molalla Downtown Development and OR 211 Streetscape
Existing and Planned Transportation System

Date: October 30, 2006 **Project** #: 7910

To: Kirsten Green
From: Paul Ryus, P.E., Selman Altun, and Matt Wiesenfeld

INTRODUCTION

This memorandum summarizes the existing condition of the transportation system within downtown Molalla and along Highway 211 (Main Street), focusing on the auto, public transit, pedestrian, and bicycle modes. The memo describes changes that have occurred since the City's Transportation System Plan was adopted in 2001, and lists the system improvements identified in the TSP that have not yet been constructed.

STUDY AREA

Figure 1, located with the other figures at the end of this memo, superimposes the project's study area on an aerial photograph of Molalla, and also shows the City's urban growth boundary (UGB). The study area includes Highway 211 from Highway 213 on the west to the Molalla city limit on the east, near Shirley Street. The study area also includes downtown Molalla and the surrounding area, defined for this study as an area roughly bounded by Ridings Avenue on the west, Molalla Forest Road and 5th Street on the south, Eckerd Avenue and Fenton Street on the east, and Shirley Street and Toliver Road on the north.

AUTO

Roadway Functional Classifications

A roadway's functional classification indicates its level of importance and role within the City's street network and also sets its design standards. *Arterial* streets carry the highest traffic volumes, including most of the traffic bound to, from, or through Molalla. Driveway access to arterial streets may be restricted. *Collector* streets are through streets that carry medium traffic volumes, and also provide a land access function. Molalla designates two levels of collector streets, major and minor. Finally, *local* streets are low-speed, low-volume streets that primarily

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serve a land access function. Molalla designates two levels of local street, neighborhood street and local. Neighborhood streets provide street connectivity within neighborhoods and carry somewhat higher traffic volumes than other local streets.

The following list gives the functional class of the roadways within the study area:

- **Arterial**
  - Molalla Avenue
  - Molalla Forest Road (future)
  - Highway 211 west of Molalla Forest Road and east of Mathias Road
  - Mathias Road
- **Major Collector**
  - Main Street (functions as an arterial until the Molalla Forest Road bypass is constructed)
  - Toliver Road
  - Shirley Street
  - 5th Street
  - Leroy Avenue
- **Minor Collector**
  - North Cole Street
  - Ridings Avenue
- **Neighborhood Streets**
  - Stowers Lane
  - Lola Avenue
  - Center Avenue
  - Heintz Street
  - Kennel Street
  - Lowe Road
  - Two unnamed future roads within the former mill site

All other study area roadways not listed above are local streets.

Traffic Operations

Weekday p.m. peak period traffic counts were conducted at twelve key intersections within the study area. Some counts were conducted in May 2006 for the ongoing Molalla UGB Expansion project. Most of the remaining counts were conducted in August 2006, which is the month with the highest traffic volumes on Highway 211. One count, at an intersection near Molalla Middle School, was conducted in September 2006, so that any school traffic influences on that

intersection's operations could be observed. The study intersections, along with the month they were counted, are given below:

- **May 2006**
  - Highway 213/Highway 211
  - Ona Way/Highway 211
  - Leroy Avenue/Main Street
  - Molalla Avenue/Main Street
  - Molalla Avenue/Shirley Street
  - Mathias Road/Highway 211
- **August 2006**
  - Ridings Avenue/Main Street
  - Dixon Avenue/Main Street
  - Kennel Avenue/Main Street
  - Molalla Avenue/5th Street
  - North Cole Street/Main Street
- **September 2006**
  - Leroy Avenue/Toliver Road

The May and September counts were adjusted to August (peak season) volumes, based on a review of permanent traffic recorder data from stations located east and south of Molalla on Highways 211 and 213, respectively. Count volumes were also balanced between intersections, where appropriate.

Two methods are used to establish traffic operations standards. The City of Molalla uses the concept of *level of service* (LOS), which is based on the average vehicular delay experienced at an intersection (for traffic signals and all-way stops), or the average vehicular delay experienced by the worst movement at all other types of intersections. Molalla's standard is LOS D, which represents a maximum of 55 seconds of average intersection delay at traffic signals and all-way stops, and a maximum of 35 seconds of average delay for the worst movement at other intersections.

ODOT uses the concept of *volume-to-capacity* (v/c) ratio, which expresses the percentage of a roadway or intersection's capacity that is in use. ODOT's standard for Highways 211 and 213 is a maximum v/c ratio of 0.90 in areas with a posted speed of 35 mph or less, meaning that no more than 90% of a roadway or intersection's capacity should be used up. In areas with a posted speed over 35 mph, the standard is a v/c ratio of 0.85. At state highway intersections, the more restrictive of ODOT's or Molalla's standard applies when determining whether an intersection is operating within its standard.

Figure 2 shows existing traffic operations at the study intersections, along with each intersection's LOS grade (from "A"/best to "F"/worst) and v/c ratio. The figure categorizes the

intersections as *within standard* (LOS A, B, or C, or a v/c ratio 0.10 or more below the ODOT standard on state highways), *approaching standard* (LOS D or a v/c ratio within 0.00-0.09 of the ODOT standard on state highways), and *exceeds standard* (LOS E or F, or a v/c ratio greater than the ODOT standard on state highways).

At present, no intersections exceed their traffic operations standard. However, the Main Street/Molalla Avenue intersection currently operates at 82% of capacity during the weekday p.m. peak hour, which is within 8 percentage points of its standard. The Main Street/Dixon Avenue intersection operates at LOS D, with 26 and 27 seconds of average delay during the weekday p.m. peak hour on the northbound and southbound approaches, respectively. If downtown Molalla were to be designated a Special Transportation Area (STA), the ODOT v/c standard in the downtown area would increase from 0.90 to 0.95.

Comparing 2006 traffic operations to the 1999 operations reported in the Molalla Transportation System Plan (TSP), the Main Street/Molalla Avenue intersection has gone from LOS B to LOS D. The other intersections included in both studies have generally the same LOS as before. The Highway 211/Highway 213 has been signalized since 1999, so the two results cannot be directly compared to each other. In 2006, the Highway 211/Highway 213 intersection operates at LOS C and a v/c ratio of 0.48.

Crashes

Crash records for the study area covering the years 2001-2005 (the most recent available) were obtained from ODOT. The data identify reported crashes that resulted in a fatality, injury, property damage exceeding a threshold amount ($1,000 through 2003, currently $1,500), or (since 2004) a vehicle being towed from the crash scene due to damage. Table 1, on the next page, summarizes this information for the study intersections.

Unsurprisingly, the two Highway 211 intersections with highest cross-street volumes, Highway 213 and Molalla Avenue had the highest number of crashes: 11 in five years at Highway 213 and 6 in five years at Molalla Avenue. Most of the reported crashes at the Highway 211/Highway 213 occurred while the intersection was still a four-way stop and most of those have failure to obey the stop sign as a contributing factor. Since the installation of a traffic signal at the intersection, the crash rate appears to have gone down, although a few more years of data will be needed to allow a good comparison of before-and-after conditions.

Table 1
Study Area Reported Crashes, 2001-2005

Intersection	# Crashes	Collision Type					Severity	
		Sideswipe	Rear-End	Turning	Angle	Other	PDO	Injury
Highway 211/ Highway 213	11		6	3	2		7	4
Highway 211/ Ona Way	3		1		2		1	2
Highway 211/ Leroy Ave	2		1		1		0	2
Highway 211/ Ridings Ave	0							
Highway 211/ Dixon Ave	1				1			
Highway 211/ Kennel St	3		2	1			2	1 (Bike)
Highway 211/ Molalla Ave	6		3	2		1	4	2
Highway 211/ N Cole St	2		1	1			2	
Highway 211/ Mathias Road	4			2	1	1	1	3
Molalla Ave/ Shirley St	0							
Molalla Ave/ 5th St	0							
Toliver Rd/ Leroy Ave	0							

PDO: property damage only

On-Street Parking

This project will be addressing parking in the downtown area during subsequent work tasks. Figure 3 shows the existing supply of on-street parking spaces within the downtown area, by block face, assuming 22 feet per parking stall (on-street parking stalls are unmarked in Molalla). This inventory was developed through a combination of through-the-windshield video shot by the project team, ODOT video log data for Highway 211, and aerial photography. For a few streets with particularly narrow cross-sections (e.g., the southern portion of Hart Street and within some mobile home parks), all of the parking has been assigned to one side of the street, although people may be able to park on either side.

The supply of on-street parking is reduced when there are frequent driveway accesses to a street, and especially so when a lot's entire frontage has access to the street. Poorly located mailboxes can also reduce the supply of on-street parking along a block face.

Access Management

The Oregon Highway Plan seeks to improve the safety and operations of state highways by managing access onto the highway. Providing reasonable amounts of separation between access points reduces the number of times that traffic on the state highway must change speed because

of other motorists turning on or off the highway, and reduces the number of locations that motorists turning onto the highway must check for potentially conflicting vehicles.

ODOT's access spacing standards depend on the highway's importance (the more important the highway, the greater the access spacing), the surrounding land use (e.g., rural vs. urban), the roadway's posted speed, and whether an area has been designated as a STA. The standards are applied to new driveway construction requests, changes of use of an existing driveway (e.g., redevelopment of a property that significantly increases driveway volumes), and ODOT modernization projects. The spacing standard that applies to Highway 211 is 500 feet, where the posted speed is 40 mph, or 350 feet, where the posted speed is 35 mph or less. Table 2 shows the access spacing standard by road segment, the total number of accesses within that segment, and the average access spacing within that segment. No determination has been made as to how many of these accesses have a valid ODOT permit or qualify for grandfather status (i.e., existed prior to 1949).

Table 2
Highway 211 Access Spacing

Segment Start	Segment End	Block Length (feet)	# of Accesses	Average Spacing (feet)	ODOT Standard (feet)	Meets Standard?
Highway 213	Molalla Forest Rd	2,060	23	86	500	No
Molalla Forest Rd	S Ona Way	560	2	187	500	No
S Ona Way	S Hezzie Ln	1,185	13	85	500	No
S Hezzie Ln	Leroy Ave	600	4	120	500	No
Leroy Ave	Ridings Ave	865	8	96	500	No
Ridings Ave	Dixon Ave	450	4	90	500	No
Dixon Ave	Alex Ave	590	2	197	350	No
Alex Ave	Shaver Ave	350	6	50	350	No
Shaver Ave	Hart St	265	3	66	350	No
Hart St	Water/Kennel St	100	0	100	350	No
Water/Kennel St	Metzler Ave	235	2	78	350	No
Metzler Ave	Molalla Ave	300	1	150	350	No
Molalla Ave	Engle Ave	310	3	78	350	No
Engle Ave	Center Ave	170	2	57	350	No
Center Ave	S Sweigle Ave	130	1	65	350	No
S Sweigle Ave	Berkley Ave	285	2	95	350	No
Berkley Ave	Grange St	60	0	60	350	No
Grange St	Lola Ave	200	2	67	350	No
Lola Ave	Fenton St	300	2	100	350	No
Fenton St	N Cole Ave	815	12	63	350	No
N Cole Ave	S Cole Ave	160	2	53	350	No
S Cole Ave	Stowers St	385	7	48	350	No
Stowers St	Mathias Rd (west)	575	7	72	350	No

Table 2 shows that ODOT's access spacing standards are currently unmet throughout the study area and, in many cases, the existing block spacing is shorter than the ODOT standard. This result means that as properties redevelop along Highway 211, ODOT will likely seek to move toward the access standard by closing and/or consolidating accesses where possible. Although ODOT must allow some sort of access (shared or direct) to properties that have no other public street frontage, it is not obligated to provide access to the state highway if an alternate access is available. Developing shared use of an access among two or more commercial properties is a technique that ODOT encourages to reduce the number of access points over time.

If an STA is created in downtown Molalla, the access spacing standard would become the existing city block spacing. If the agreement between the City and ODOT setting up the STA were to allow driveways, the minimum spacing would be 175 feet, or mid-block when a block is less than 350 feet long. It should be noted that east of downtown, the land use along Highway 211 mostly consists of single-family homes. It is unlikely that the number of accesses in that section will be able to be reduced.

Planned Roadway Improvements

The 2001 TSP identified a set of roadway improvement projects to address Molalla's transportation needs over the following 20 years. Since 2001, the following TSP projects have been constructed:

- Traffic signal at the Highway 211/Highway 213 intersection;
- 5th Street extension; and
- Toliver Road widening.

Table 3, on the next page, lists the remaining projects that are planned to be constructed by 2021, assuming available funding matches the assumptions used to develop the TSP list. This list includes a project description, the TSP's estimated project cost (in 2000 dollars), and the TSP's expectation for the project funding source(s). Figure 4 maps the locations of these projects. Note that this project's future work includes revisiting the need for and/or design of these projects.

Table 3
Remaining TSP Projects Within the Molalla Urban Growth Boundary

#	Improvement Location	Type of Improvement	Estimated Cost (2000 $)	Funding Sources
1	Toliver Road/Highway 213	Turn lanes, traffic signal	$330,000*	SDC/Development/ODOT
2	Meadow Drive/Highway 213	Traffic signal	$150,000	SDC/Development/ODOT
3	Mathias Road/Feyrer Park Road	T-intersection	$100,000	SDC/Other city
4	Main Street/Grange Street	Pedestrian median refuge	$20,000	SDC/ODOT
5	Molalla Avenue/Main Street	Turn lanes, traffic signal	$160,000	SDC/ODOT/County
6	Molalla Avenue/Toliver Road	Traffic signal	$150,000	SDC/Other city/County
7	Leroy Avenue/Main Street	Turn lanes, traffic signal	$200,000	SDC/Other city
8	Molalla Avenue/Shirley Street	Traffic signal	$150,000	SDC/Other city
9	Mathias Road/Main Street	Roundabout, gateway	$400,000	SDC/ODOT/County
10	Molalla Forest Road/Main Street	Roundabout, gateway	$150,000	SDC
11	Highway 211	Widen roadway	$185,000	SDC/ODOT
12	Molalla Forest Road	Reconstruct, widen roadway	$4,300,000	SDC
13	Mathias Road	Widen roadway	$1,300,000	SDC
14	Highway 213	Shoulder improvements	$500,000	ODOT
15	Molalla Avenue	Widen roadway	$1,875,000	Not identified

SDC = Systems Development Charge
ID numbers are keyed to Figure 4.
The TSP also budgeted $25,000 per year for miscellaneous sidewalk and bicycle facility improvements throughout Molalla.
*More recent work for the City indicates that the Bear Creek culvert south of the Toliver/Highway 213 intersection would need to be replaced if left-turn lanes were constructed, as the roadway could not be tapered back to a 2-lane section prior to the culvert. This would raise the project cost to over $1 million. A roundabout would avoid this problem, but the location may not satisfy ODOT policies for installing roundabouts on the state highway system.

PUBLIC TRANSIT

Public transit service in Molalla is provided by the South Clackamas Transportation District (SCTD), which operates three routes:

- The **Intra-City** route loops through the western and eastern halves of Molalla every hour between 7:30 a.m. and 5:35 p.m. on weekdays.
- The **Oregon City** route runs from Molalla City Hall to Clackamas Community College via Highways 211 and 213. Connections to TriMet routes serving Portland-area destinations are available at Clackamas Community College. Service is provided approximately hourly between 5:06 a.m. and 8:25 p.m. on weekdays, and approximately hourly between 7:09 a.m. and 4:55 p.m. on Saturdays. The one-way fare is $1.
- The **Canby** route runs from Molalla City Hall to Canby via Highway 211 and the Canby-Marquam Highway, and returns via Mulino Road, Highway 213, and Molalla Avenue. Connections are available in Canby to Canby Area Transit routes serving Canby, Oregon City, and Woodburn, and to a South Metro Area Rapid Transit route serving Wilsonville. Service is provided every 60-105 minutes, from 7:30 a.m. to 5:15 p.m. The one-way fare is $1.

Figure 5 shows the streets served by the three routes within the study area, and locations of bus shelters. The Intra-City route has no designated bus stops—buses will stop at any safe location along the route to pick up and drop off passengers. Discussions with SCTD staff indicate that there are no current plans to develop new routes.

In 2005, SCTD carried 68,785 passengers, corresponding to an average of over 250 boardings per day. The Oregon City route carried 43% of the total, the Intra-City route carried 36% of the total, and the Canby route carried 21% of the total. For the first eight months of 2006, SCTD ridership is up 15% over 2005, led by strong ridership growth on the Oregon City route, which is up 32% over the previous year-to-date.

The amount of transit service available in Molalla is excellent for a city of its size. The existence of a fixed revenue source to help support transit service—in Molalla's case, a 0.3% payroll tax—is a major reason why this level of transit service can be provided.

PEDESTRIAN

The 2001 TSP noted that, at the time, sidewalks were most likely to be found in new residential subdivisions and in the downtown area. Figure 6 shows the current extent of Molalla's sidewalk and path network. "Multi-use paths" are off-street facilities shared by pedestrians and bicycles. "Complete sidewalk" indicates block faces with a continuous sidewalk. "Partial sidewalk" indicates block faces with some sections of sidewalk, but not a continuous sidewalk.

The inventory of pedestrian facilities within the study area was developed from field observations and depicted with bright colors on the map. To illustrate potential connections to areas outside the study area, the remainder of Molalla's pedestrian network is also mapped, based on data from the TSP and aerial photography. Pedestrian facilities depicted outside the study area have not been field checked, but have been reviewed by City staff.

A comparison of the TSP existing-conditions map to Figure 6 shows that Molalla's sidewalk network has expanded considerably since 1999. The Toliver Road and 5th Street extension projects have provided long sections of new sidewalk, and a new multiple-use path, the Bear Creek Trail, has been developed in the southeast section of the city. There are also more sidewalks along Highway 211 west of Molalla Avenue than before, and all new residential development is providing sidewalks. In the future, additional sidewalks will be developed as part of street reconstruction projects and as properties redevelop.

Figure 6 also shows the inventory of marked crosswalks within Molalla, developed from aerial photography.

BICYCLE

Molalla's bicycle network is still limited in extent, although improvements have occurred since the time the TSP was developed. Toliver Road has new bike lanes or an adjacent multiple-use path for its entire length east of Highway 213, and the recently extended portion of 5th Street east of Molalla Avenue also has bicycle lanes. Main Street between Leroy Avenue and Molalla Avenue has shoulders that function as bicycle lanes. There are short sections of bicycle lanes on the approaches to the Highway 211/Highway 213 intersection which were added when the intersection was widened, and later signalized.

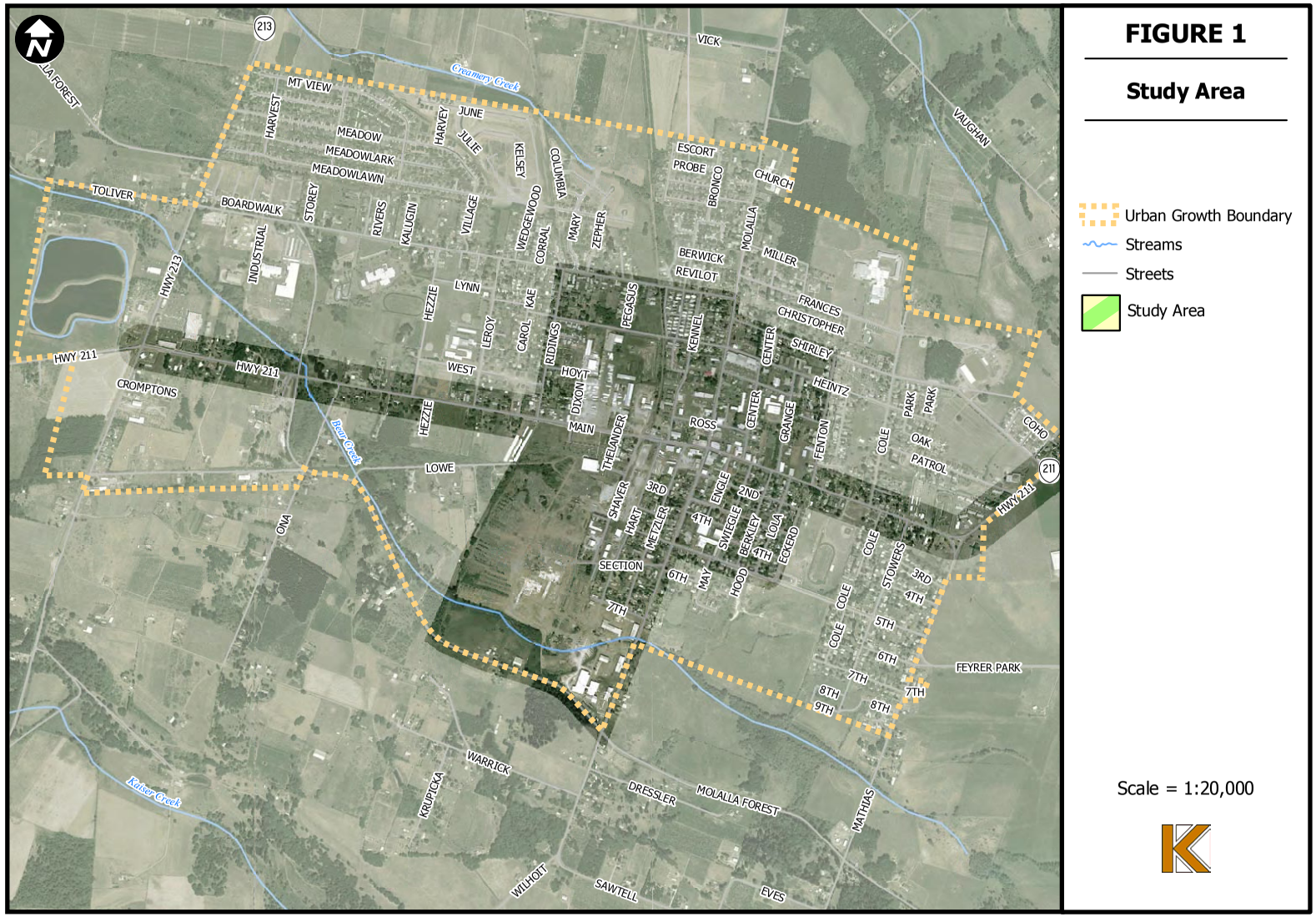
In the future, the Molalla TSP calls for bicycle lanes to be constructed along all collector and arterial streets outside the downtown area. Street widths are generally narrower downtown, particularly along Main Street east of Molalla Avenue, and a decision was made at the time the TSP was developed to favor on-street parking over bicycle lanes in downtown. Bicycles can more readily share the road with vehicular traffic in low-speed environments, such as downtown, and the more-connected street network downtown also provides opportunities for bicycle travel on streets paralleling Main Street and Molalla Avenue.

Figure 7 shows the existing and planned bicycle network within the study area. "Multi-use paths" are off-street facilities shared with pedestrians. "Bicycle lane" indicates that a continuous designated bike lane exists for the entire block face. "Incomplete bicycle lane" indicates that some portion of the block face has a bike lane, but not the entire block face. "Shoulder bikeway" indicates that a wide shoulder exists for the entire block face, adequate for bicycle travel. Along portions of Main Street west of Molalla Avenue, the lane striping provides sufficient room for both on-street parking and bicycle travel. "Incomplete shoulder bikeway" indicates that a wide shoulder exists for only a portion of the block face. Finally, "planned bike lane" indicates street segments that are planned to have bicycle lanes in the future, either as part of a road reconstruction project, or through frontage improvements as adjacent properties redevelop.

The rail section of the TSP states that if "the railroad chooses to abandon the line at some point in the future, the City should seek to preserve the right-of-way as a recreational pathway." The Molalla Branch runs from the Union Pacific mainline in Canby to Molalla, where it used to serve the former mill site south of Main Street and west of Molalla Avenue. In 1993, the Molalla Western Railroad (now the Oregon Pacific Railroad), a short-line railroad, leased the branch from Union Pacific. In summer 2003, the tracks were removed from the section of the line between Liberal and Molalla. (According to one web site, Oregon Pacific purchased the tracks from Union Pacific for use elsewhere.)[1] An official abandonment of the line would require an application by Union Pacific to the federal Surface Transportation Board, which does not appear to have occurred yet. The status of the right-of-way following an official abandonment would depend on whether Union Pacific owns the right-of-way outright (in which case, the railroad would retain ownership) or whether the railroad operated on an easement from adjacent landowners (in which case, the right-of-way could revert back to the adjacent landowners).[2]

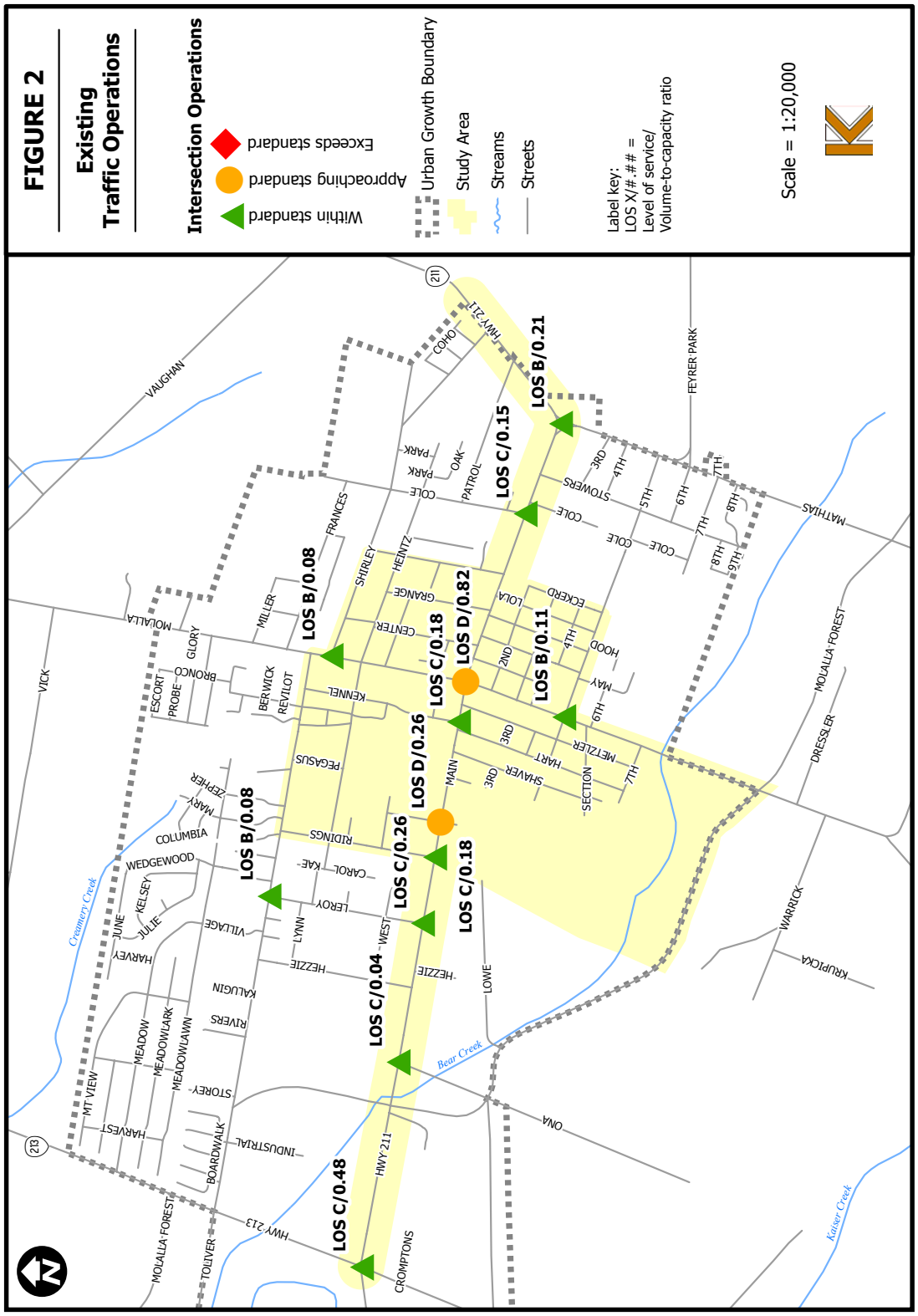
[1] Brian McCamish, "Active Short Lines of the Pacific Northwest," http://www.brian894x4.com/OregonPacificRR.html, accessed September 13, 2006.
[2] Rails-to-Trails Conservancy, *Acquiring Rail Corridors: A How To Manual.*

Molalla's bicycle network has improved since the TSP was adopted, and if the City continues its efforts, the network can be expected to continue to grow in the future. The existence of the semi-abandoned railroad offers the potential to begin to develop recreational bike trails to connect Molalla to nearby communities and parks. However, the City may need to be prepared to act quickly if the opportunity to purchase the right-of-way comes up, in the event the railroad applies to officially abandon the line.



Molalla Downtown Development and OR 211 Streetscape Plan
Technical Memorandum #3: Existing and Planned Transportation System

October 2006



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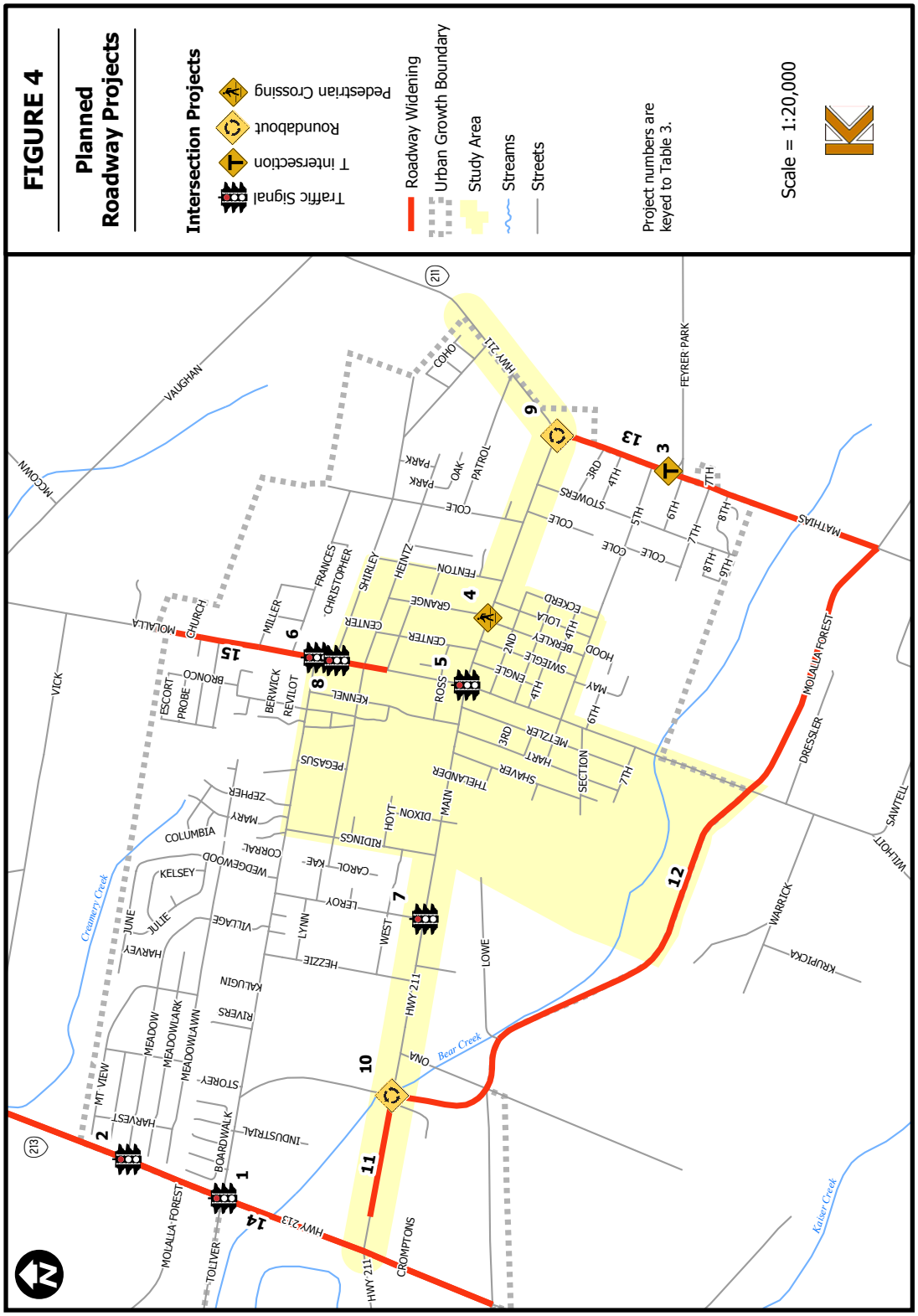
FIGURE 4
Planned
Roadway Projects
Intersection Projects
Traffic Signal
T Intersection
Roundabout
Pedestrian Crossing
Roadway Widening
Urban Growth Boundary
Study Area
Streams
Streets
Project numbers are keyed to Table 3.
Scale = 1:20,000
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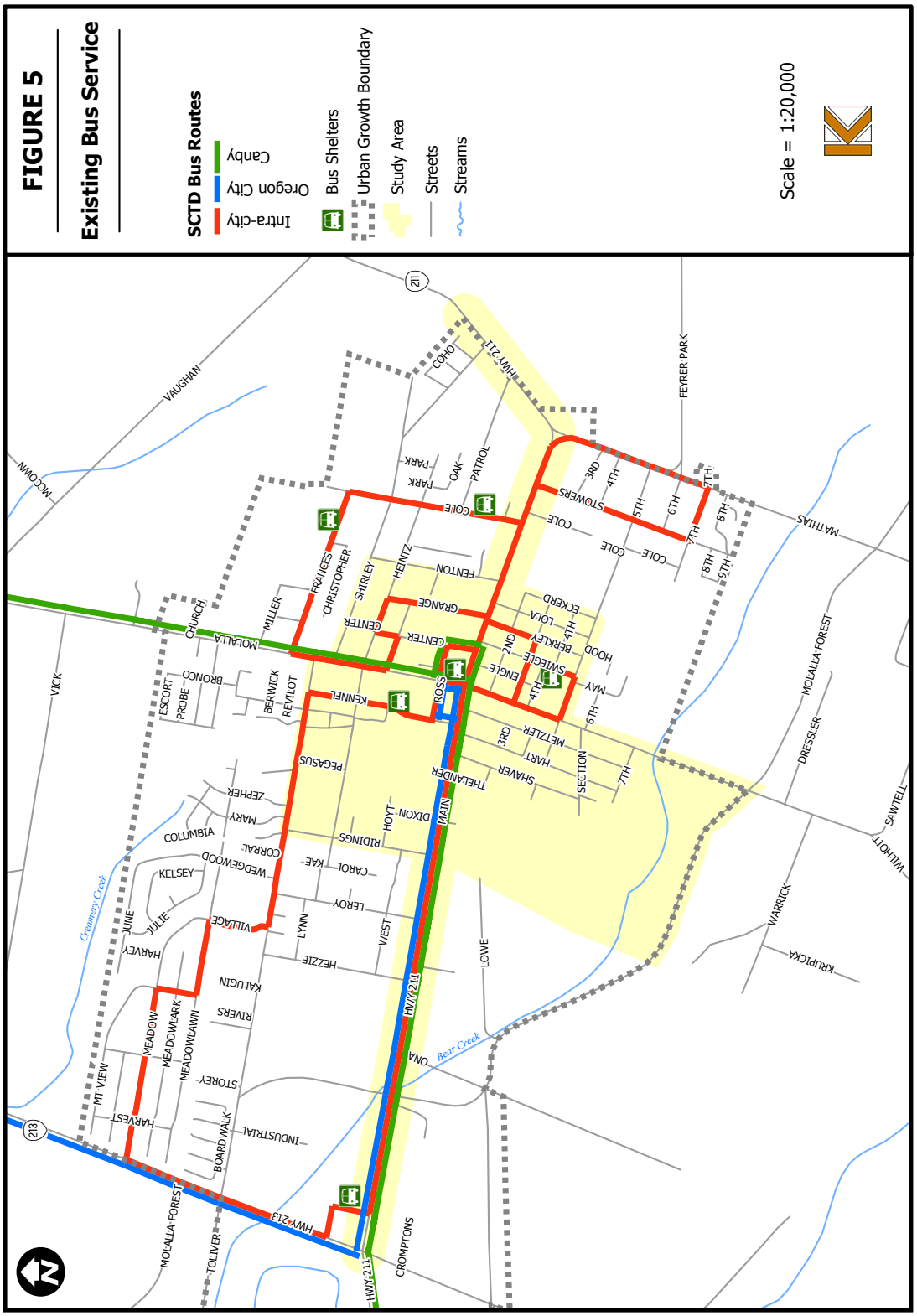
FIGURE 5
Existing Bus Service
SCTD Bus Routes
Intra-city
Oregon City
Canby
Bus Shelters
Urban Growth Boundary
Study Area
Streets
Streams
Scale = 1:20,000
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HWY 211
HWY 213
Bear Creek
Creamery Creek
MOLALLA FOREST
TOLIVER
CROMPTONS
VAUGHAN
MCCOWN
VICK
FEYRER PARK
MATHIAS
MOLALLA FOREST
DRESSLER
SAWTELL
WILLHOIT
WARRICK
KRUPICKA
LOWE
CHURCH
MILLER
FRANCES
CHRISTOPHER
SHIRLEY
HEINTZ
FENTON
COLE
PARK
OAK
PATROL
COMO
STOWERS
3RD
4TH
5TH
6TH
7TH
8TH
9TH
GRANGE
CENTER
ECKERD
LOLA
BERKLEY
HOOD
2ND
ENGLE
SWEGLE
MAY
KENNEL
ROSS
BRONCO
ESCORT
PROBE
BERWICK
REVILOT
MOLALLA
PEGASUS
ZEPHER
MARY
COLUMBIA
CORRAL
WEDGEWOOD
KELSEY
CAROL
KAE
RIDINGS
HOYT
DIXON
MAIN
THELANDER
SHAVER
HART
METZLER
SECTION
7TH
JUNE
JULIE
HARVEY
VILLAGE
LYNN
LEROY
WEST
HEZZIE
KALUGIN
RIVERS
MEADOW
MEADOWLARK
MEADOWLAWN
STOREY
INDUSTRIAL
BOARDWALK
HARVEST
MT VIEW

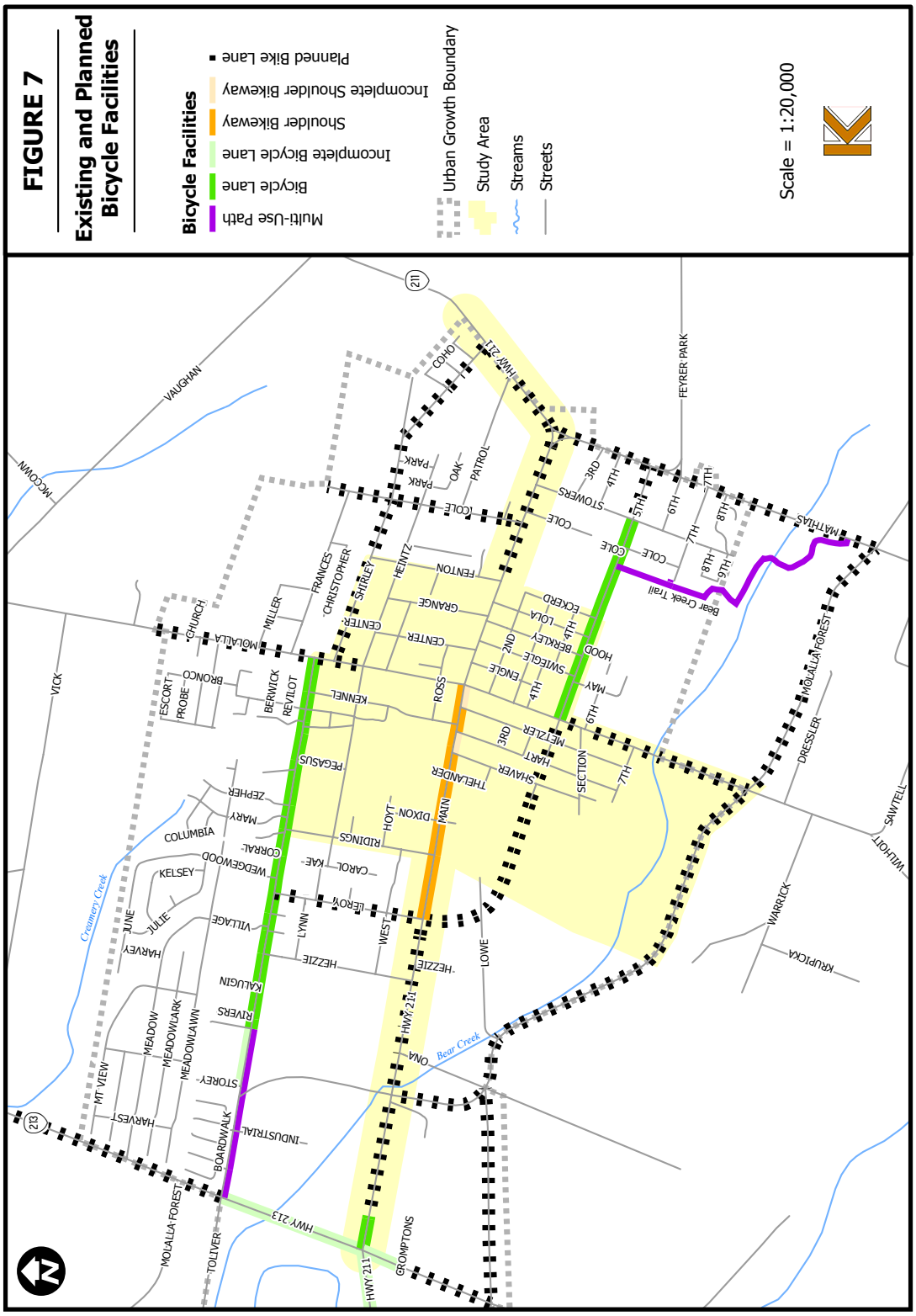
FIGURE 7
Existing and Planned Bicycle Facilities
Bicycle Facilities
Multi-Use Path
Bicycle Lane
Incomplete Bicycle Lane
Shoulder Bikeway
Incomplete Shoulder Bikeway
Planned Bike Lane
Urban Growth Boundary
Study Area
Streams
Streets
Scale = 1:20,000
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TECHNICAL MEMORANDUM #5

City of Molalla Downtown and OR 211 Streetscape Plan:
Future Traffic Conditions Analysis

Date: June 14, 2007 **Project #: 7910**

To: Kirstin Greene, Cogan Owens Cogan
Sonya Kazen & Jason Grassman, P.E., ODOT

From: Paul Ryus, P.E. and Selman Altun

INTRODUCTION

This memo details the trip generation and distribution assumptions used to model Molalla's traffic growth through the year 2027, based on the preferred design concept presented in the Task 5.10 Summary Report (Option 2, "Downtown Revival"), including the revisions to the concept that resulted as a result of Downtown Task Force and public input. This memo also reports future traffic conditions if all improvements identified in Molalla's Transportation System Plan (TSP) are constructed, and presents and discusses alternative improvement concepts for the Main/Molalla intersection.

LAND USE AND GROWTH ASSUMPTIONS

Buildable Lands and Future Development

Buildable lands were identified using a combination of the buildable lands inventory provided by the City of Molalla and aerial photography. Buildable lands include parcels with infill potential, as well as parcels not yet developed to an urban level. The inventory accounts for land not developable due to environmental constraints such as wetlands. We also reduced the remaining available land by 30% to account for land used for roads, parks, and similar supportive uses.

For residential sites, the development potential was determined by the number of buildable acres and the initial design concept's assumed density: six units per acre for single-family residential, and ten units per acre for townhomes (i.e., five two-unit townhomes per acre).

For industrial and commercial sites, land uses were selected based on the site's proposed zoning under the initial design concept. Generally, industrial and commercial sites were not assumed to be developed to their maximum potential, but rather to a level consistent with other similar sites already developed in Molalla. One exception was the Molalla Marketplace (Gramor) shopping center at the Highway 211/Highway 213 intersection, where we assumed 50,000 square feet as the remaining amount of approved development on that site, based on information provided by City staff.

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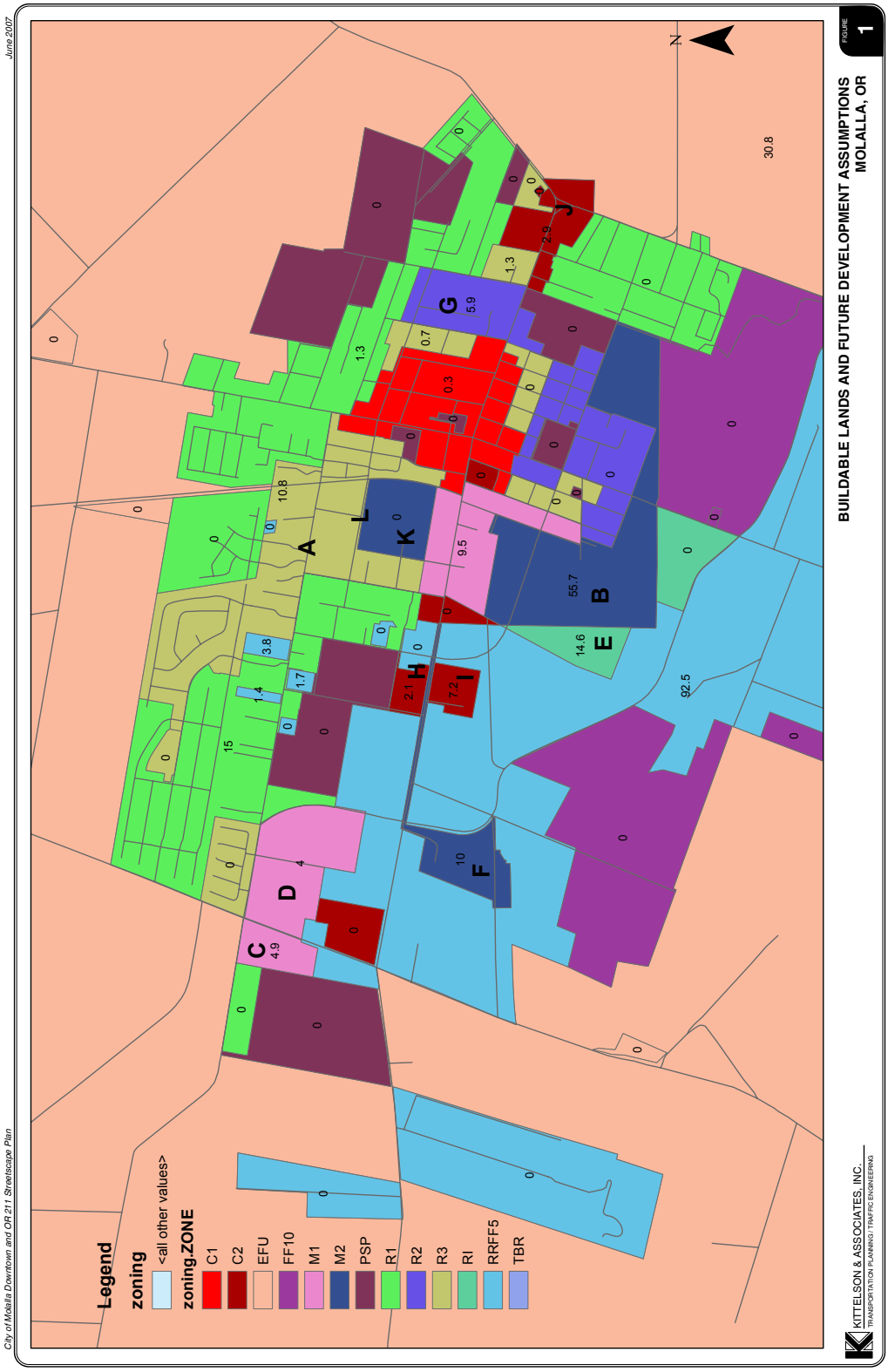
In some cases, existing land uses are proposed to be redeveloped as another kind of use in the future—for example, approximately 20 acres of land north of Main Street and west of the former railroad tracks is proposed to be rezoned from industrial to general commercial. In these cases, the net change in trip generation potential has been evaluated.

Figure 1 shows the locations of available buildable lands within Molalla. Letters within circles on that map are keyed to Table 1, which lists the assumed kind and amount of development for each site, based on the initial design concept's zoning.

Table 1. Future Development Assumptions

Map Key	Land Use Type	Size
A	Residential	22 units of single family residential 38 units of townhomes
B	Residential	132 units of single family residential 200 units of townhomes
C	Light Industrial	20,000 square feet
D	Light Industrial	20,000 square feet
E	Heavy Industrial	65,000 square feet
F	Heavy Industrial	20,000 square feet
G	Residential	6 units of single family residential
H	Pharmacy/Drugstore	15,000 square feet
I	Shopping Center	70,000 square feet
J	High Turnover (Sit-down) Restaurant	10,000 square feet
K	Big Box Retailer (replacing Light Industrial)	215,000 square feet (replacing 100,000 square feet)
L	Light Industrial (replacing Heavy Industrial)	35,500 square feet (replacing 35,500 square feet)

Table 1 shows a potential for 398 residential units, 145,000 square feet of industrial, and 310,000 square feet of new commercial developments within the urban growth boundary (UGB). There is also a reduction of 100,000 square feet of industrial areas within the UGB, which is replaced by commercial zoning.


June 2007
City of Molalla Downtown and OR 211 Streetscape Plan
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BUILDABLE LANDS AND FUTURE DEVELOPMENT ASSUMPTIONS
MOLALLA, OR
FIGURE 1
KITTELSON & ASSOCIATES, INC.
TRANSPORTATION PLANNING / TRAFFIC ENGINEERING

Population Growth

Technical Memo #1 forecasts the 2025 population of Molalla to be just under 11,000 persons. Given a 2005 population of approximately 6,700, the city is forecast to grow by 4,300 persons over 20 years. This population increase would require 1,482 new housing units, assuming the average household size of 2.9 identified in Technical Memo #1, compared to the potential supply of 398 housing units identified in Table 1.[1] Consequently, there will be a need for more than 1,000 housing units outside the UGB by 2025. The City's 2001 TSP also identified the need for a UGB expansion to provide sufficient housing units to meet future forecasts. Based both on the City's preference stated in the TSP and on current development trends, we assumed that the additional residential growth would occur south of the existing UGB, and would enter Molalla via Molalla Avenue or Mathias Road.

Employment Growth

Technical Memo #1 indicated that the City's goal is to provide 1.6 jobs for every household by 2025. Using this value, in combination with a future population of 11,000 (3,793 households), results in a total of 6,068 jobs in Molalla by 2025. The Marketek report identified a total of 2,882 jobs within Molalla's zip code in 2003, excluding the agriculture and forestry sectors. (We assume that agriculture and forestry jobs are (1) located outside the Molalla urban area and (2) are unlikely to increase in the future.) Therefore, 3,186 jobs would need to be added in non-agricultural job sectors by 2025 to meet the City's goal.

Industrial Employment

According to the Marketek report, the manufacturing, transportation, communications, and public utilities sectors comprised 33% of Molalla's total employment in 2003, excluding agriculture-and forestry-related jobs. Assuming the same ratio holds in the future, 1,051 additional industrial jobs would be added by 2025.

Data from the Institute of Transportation Engineer's (ITE) Trip Generation Manual suggests an average of 17.3 employees per acre for general light industrial uses. Therefore, there would be a need for 60.7 acres of industrial land to provide employment for 1,051 employees. In comparison, the buildable lands inventory provides 39.4 acres of industrial land, excluding the TimberTown area that would be rezoned from industrial under the initial design concept. Furthermore, the redevelopment of 100,000 square feet of existing industrial development on the outskirts of downtown would need to be replaced elsewhere. This generates a long-term supply of only 17.1 acres of industrial land within the UGB and a need for 43.6 acres outside the UGB. We assumed that the additional 43.6 acres would be accommodated through a UGB expansion south of the Molalla Forest Road, between Highway 213 and Molalla Avenue. This assumption is based on the City's intent to have the Forest Road serve as a truck route in the future, and the proximity of other industrial-zoned land within the UGB. Under the existing zoning, the City has

[1] The City's comprehensive plan update may end up using an estimate of 2.4 persons per household, which would both increase the number of required housing units and increase the future employment estimate (which is based on jobs per household). Both of these increases would result in more trips. However, based on direction from ODOT, this memo remains consistent with the assumptions developed earlier in the project and does not try to anticipate persons-per-household and other values that the City work may end up using. The City will have an opportunity to reconcile any differences when it updates its transportation system plan to reflect the new comprehensive plan.

sufficient industrial land within its UGB, but would need to accommodate more housing outside the UGB than under Option 2.

Retail Employment

The Marketek report indicated that 23% of 2003 jobs in Molalla were in the wholesale and retail sectors (again, excluding agriculture and forest jobs). If this proportion were to hold in the future, 732 additional retail jobs would result. If all of these jobs were assigned to the 310,000 square feet of future retail as identified in Table 1, this would result in 423 square feet per employee, which is within the range of typical values for retail developments.

The retail and services sectors overlap in terms of where jobs are assumed to be located. Therefore, if more retail growth were to occur than projected (e.g., a "big box" retailer were to move into Molalla), the general traffic patterns would remain the same. However, depending on the size and nature of the retail development, there could be localized traffic impacts that cannot be accounted for at this level of analysis.

School/Government/Construction Employment

These industries comprise about 22% of Molalla's total employment, resulting in 700 additional jobs. Trips related to jobs in these sectors (employees, students, and customers) are generated in, and have destinations in, all parts of the city. Therefore, traffic increases due to growth in these employment sectors were modeled as a city-wide growth rate, instead of zone-to-zone trips, as was done for the other employment sectors. Base-year traffic volumes at all intersections were increased 14% to reflect traffic growth from these sectors through 2025.

Service Employment

The services sector currently comprises 21% of total employment in Molalla, which would result in about 670 additional jobs by 2025. These were assumed to be mainly located immediately north and south of downtown, in areas zoned for commercial uses, and we assumed there would be one p.m. peak hour trip associated with each job.

Growth to Year 2027

The population and job forecasts developed by others used 2025 as their horizon year. Based on direction from ODOT, this memo's transportation analysis uses a horizon year of 20 years from the assumed year of adoption of the Molalla Downtown Plan and Oregon 211 Streetscape Study, or 2027. Population growth to 2025 reflects an average 2.9% annual growth rate, from Technical Memorandum #1. We have assumed that this trend continues through the year 2027 and have therefore increased background traffic by 5.8% to reflect two additional years of growth.

COMPARISON OF EXISTING AND PROPOSED ZONING

This memo does not explicitly model future traffic conditions for the City's existing zoning for several reasons:

1. The City's population and job forecasts for the year 2025 are the same under either zoning scenario.
2. Under the existing zoning, the old mill site would be developed as industrial and the traffic analysis would assume that the City's additional housing needs would be located in a UGB expansion area south of downtown. Under the proposed zoning, the old mill site would be developed as residential and the City's additional industrial needs would be located in a UGB expansion area south of downtown. The proposed zoning would reduce vehicle miles traveled, as more trips would be generated closer to their destination, but changes neither (a) the overall future trip generation south of downtown nor (b) the overall distribution of those trips.
3. Although developing more housing closer to downtown Molalla increases the likelihood that some auto trips will be converted to walking and bicycle trips, for the purposes of doing a Transportation Planning Rule traffic analysis for a zone change, it is usual to assume a reasonable-worst-case trip generation scenario, not knowing how the site may ultimately develop.
4. Other parcels on the north side of Highway 211 are proposed to be rezoned from industrial to commercial. However, all commercial activity would occur in the Highway 211/downtown corridor under either scenario. Given the assumption of a fixed number of retail and service jobs in either scenario, this simply means that under the existing zoning, commercial areas would need to be developed at a somewhat higher density than under the proposed zoning to accommodate the same number of jobs; however, all of the traffic related to retail and services would still wind up going through the same intersections.

As a result of these factors, there would be no significant difference between the traffic analysis results presented later in this memo for the proposed zoning and the traffic analysis results that would result from an explicit analysis of the existing zoning. To the extent that the old mill site and downtown develop in a way that encourages walking and biking trips between the two areas, the proposed zoning has the potential to generate somewhat reduced traffic impacts in downtown. We believe these reduced impacts would be reflected in lower v/c ratios, but not a reduced need to mitigate key intersections such as Main/Molalla.

TRIP DISTRIBUTION

The U.S. Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) data provide information about where Molalla residents work and where Molalla employees live. This information was used (1) to divide commute trip ends into intra-Molalla and extra-Molalla trips, and (2) to distribute trips entering and exiting Molalla between locations in other parts of the region.

Table 2 shows the 2003 distribution of commute trips generated within the Molalla zip code. As can be seen, about 11.5% of Molalla residents currently work within Molalla.

Table 2. Distribution of Commute Trips Generated Within Molalla

Location	Percentage
Clackamas County	51.3%
Molalla	*11.5%*
Oregon City	*4.4%*
Wilsonville	*4.3%*
Multnomah County	19.5%
Portland	*18.1%*
Washington County	12.1%
Marion County	9.8%
Lane County	1.5%
All other locations	5.9%

SOURCE: US Census Bureau, 2003 data

With the City's projected increase in the number of jobs per household, more Molallans would be expected to work within the City in the future. We assumed that the percentage of commute trips generated within Molalla that would stay within Molalla would increase to 25% in the future, and reduced the Clackamas County percentage correspondingly. We also assumed that people moving to the new housing being constructed within Molalla would be more likely than the existing households to have a commute within Molalla.

Table 3 shows the 2003 distribution of commute trips to the Molalla zip code. About 8.5% of Molalla employees currently live within Molalla. "Out of state" trips, for the most part, likely represent temporary workers in the Molalla area who reside out of state, rather than commuters from Clark County, Washington.

Table 3. Distribution of Commute Trips To Molalla

Location	Percentage
Clackamas County	59.7%
Molalla	*8.5%*
Oregon City	*4.2%*
Marion County	18.9%
Woodburn	*6.2%*
Out of state	8.5%
Multnomah County	5.3%
Washington County	2.0%
All other locations	5.2%

SOURCE: US Census Bureau, 2003 data

PROPOSED ZONING TRAFFIC ANALYSIS

Trips generated by residential, retail, industrial, and services-related land uses were distributed onto Molalla's road network as described in the previous section. Growth due to construction, school, and government-related land uses were accounted for by an overall growth factor applied to each intersection.

As first described in Technical Memorandum #3, two methods are used to establish traffic operations standards. The City of Molalla uses the concept of level of service (LOS), which is based on the average vehicular delay experienced at an intersection (for traffic signals and all-way stops), or the average vehicular delay experienced by the worst movement at all other types of intersections. Molalla's standard is LOS D, which represents a maximum of 55 seconds of average intersection delay at traffic signals and all-way stops, and a maximum of 35 seconds of average delay for the worst movement at other intersections.

ODOT uses the concept of volume-to-capacity (v/c) ratio, which expresses the percentage of a roadway or intersection's capacity that is in use. ODOT's standard for Highways 211 and 213 is a maximum v/c ratio of 0.90 in areas with a posted speed of 35 mph or less, meaning that no more than 90% of a roadway or intersection's capacity should be used up. In areas with a posted speed over 35 mph, the standard is a v/c ratio of 0.85. At state highway intersections, the more restrictive of ODOT's or Molalla's standard applies when determining whether an intersection is operating within its standard. If downtown Molalla is designated as a Special Transportation Area (STA), the v/c standard for Highway 211 would be 0.95 within the STA.

The Molalla TSP identifies the following roadway projects that would impact traffic volumes and operations within this project's study area, and which we assumed would be constructed by 2027:

- The **Molalla Forest Road** would be reconstructed and used as a controlled-access truck and through-traffic bypass of downtown Molalla. If the City's UGB were to be expanded to the south, the road would also provide an alternative to Main Street for traffic generated by new development in the UGB expansion area.
- The **Molalla Forest Road/Main Street** and **Mathias Road/Main Street** intersections would be reconstructed as roundabouts.
- The **Main Street/Leroy Avenue** intersection would be signalized.
- The **Main Street/Molalla Avenue** intersection would be signalized, with left-turn lanes provided.
- The **Shirley Street/Molalla Avenue** intersection would be signalized.

The TSP contemplated that a new street grid would be constructed within the old mill site, and that an extension of 5th Street to Leroy Avenue would provide an alternative route for traffic to get from Molalla Avenue to Main Street, without having to pass through the Main Street/Molalla Avenue intersection. Option 2 provides such a grid, with the connection via Ridings Avenue. Because the mill site would be developed as residential under Option 2, rather than as industrial under the existing comprehensive plan, diverting traffic through the area becomes a less-attractive option. It should be noted, however, that if the area north of Main Street and west of the former railroad tracks becomes general commercial—particularly big-box commercial—a continuous north-south collector street (e.g., Thelander Street) would be needed between Molalla Forest Road and Main Street. This collector street would provide a way for traffic generated by new housing south of the existing Molalla UGB to get to the general commercial site without going through downtown. Without this route, the capacity of the Main/Molalla intersection would be exceeded by 2027, even with the mitigation options discussed later in this memo.

Table 4 lists the year 2027 traffic conditions during the weekday p.m. peak hour at the study intersections, based on the Option 2 land uses, and with the road improvements described above.

Table 4. Year 2027 Weekday PM Peak Hour Traffic Conditions: Option 2, TSP Projects

Intersection	v/c Ratio	Avg. Delay (sec)	LOS
Highway 213/Highway 211 (signal)	0.93	40.8	D
Molalla Forest Road/Highway 211 (roundabout)	0.79	16.5	*
Leroy Avenue/Highway 211 (signal)	0.64	12.3	B
Dixon Avenue/Highway 211 (stop control)	0.38	32.3	D
Ridings Avenue/Highway 211 (stop control)	0.26	39.1	E
Kennel Avenue/Highway 211 (stop control)	0.20	23.1	C
Molalla Avenue/Highway 211 (signal+turn lanes)	0.97	59.6	E
N. Cole Avenue/Highway 211 (stop control)	0.39	32.9	D
Mathias Road/Highway 211 (roundabout)	0.49	6.4	*
Molalla Avenue/5th Street (stop control)	0.49	56.9	F
Molalla Avenue/Shirley Street (signal)	0.47	4.2	A
Leroy Avenue/Toliver Street (stop control)	0.33	20.3	C

*LOS ranges have not yet been defined for roundabout intersections.

As Table 4 shows, traffic operations on Highway 211 would be considerably improved if the Molalla Forest Road were available as a parallel facility to relieve some of the traffic. Stop-controlled intersections along Highway 211 west of downtown would sometimes exceed the City's level-of-service standard of "D", but would operate well within their capacity. These intersections would likely operate better than indicated in this table, as the new traffic signals would create longer gaps in traffic that side-street traffic could use.

With the availability of the Molalla Forest Road, less Oregon City-bound traffic would use Molalla Avenue through town. However, greater traffic volumes would occur through the Highway 213/Highway 211 intersection, which would exceed ODOT's v/c standard by 2027. The Main/Molalla intersection would meet operational standards, but would require long left-turn lanes, as discussed in the next section.

MAIN/MOLALLA IMPROVEMENT CONCEPTS

This section presents two improvement concepts for the Main/Molalla intersection and discusses both their traffic and potential community impacts. Both options assume that the Main/Molalla intersection will be signalized at some point in the future. Two other options—a north/south couplet, and one-way circulation around the block immediately northwest of the Main/Molalla intersection—were evaluated earlier in the project, but were not favored in the comments received through the public process.

Option #1: Left Turn Lanes on All Approaches

Under this option, on-street parking would be removed on the intersection approaches to provide room for left-turn lanes. The traffic signal would operate in a four-phase operation (i.e., north/south left turns, north/south through & right turns, east/west left turns, and east/west

through & right turns). The intersection's operation (v/c ratio of 0.97 and LOS E) would not meet ODOT and City standards (even with an STA designation), the required lengths of the left-turn lanes would be excessive, in some cases exceeding a block in length (for example, the required length for the northbound left-turn lane to accommodate 95th-percentile queues would be 650 feet in the year 2027). However, the intersection would still operate within capacity

Option #2: Prohibit Left Turns

A second concept, suggested by the City's Transportation System Plan, would be to prohibit all left turns at the Main/Molalla intersection, at least during peak periods. The intersection would operate efficiently as a two-phase signal. Overall traffic volumes could go up or down, depending on the routes motorists selected to make their left turn (i.e., turning left-right-left prior to the intersection would result in less traffic, while making three right turns after passing through the intersection would result in more traffic). For the purposes of this analysis, we conservatively assumed that half the traffic would pass through the intersection and turn right-right-right, while half would pass through the intersection and turn left-left-right, resulting in a v/c ratio of 0.79 and LOS B. To the extent that traffic turned prior to the intersection, operations would improve.

Traffic volumes on other downtown streets—including some residential streets—would increase as result of the turn prohibitions, but on-street parking could be retained on Main and Molalla.

Summary of Options

Option 1 (left-turn lanes) produces below-capacity operations in the year 2027, but would exceed both ODOT and City operations standards. It eliminates on-street parking on Main Street and Molalla Avenue within 1-2 blocks of the intersection. The required left-turn lane lengths would be excessively long, extending across more than one block on some intersection approaches.

Option 2 (left-turn prohibition) produces acceptable operations in the year 2027 and preserves on-street parking. However, traffic volumes and turning movements would increase on all of the streets surrounding the Main/Molalla intersection, which would have neighborhood impacts.

Prior to installing a traffic signal, ODOT would seek community input to help determine the community's preferred solution at that time. State rules regarding truck movements may preclude the left-turn prohibition option.

OTHER INTERSECTION IMPROVEMENTS

Highway 211/Highway 213

Providing right-turn overlap phasing (i.e., right turns move at the same time the corresponding left turn moves) would produce a year 2027 v/c ratio of 0.91, which is above the ODOT standard of 0.85. Further improvement would require additional lanes (e.g., dual westbound left-turn lanes produce a v/c ratio of 0.81) or the replacement of the traffic signal with a roundabout.

Highway 211/Ridings Avenue

If Ridings Avenue is developed to the south as a collector street, the Highway 211/Ridings Avenue intersection could require signalization in the future. Installing new traffic signals on state highways requires a detailed engineering study and the approval of the State Traffic Engineer.

Highway 211/Thelander Avenue

If the area north of Highway 211 and west of the former railroad right-of-way is developed as big-box commercial, the site access would likely require signalization. A preferred location to install a traffic signal would be opposite a public street serving the TimberTown area, for example, Thelander Avenue. Installing new traffic signals on state highways requires a detailed engineering study and the approval of the State Traffic Engineer.

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GOVERNMENTAL/COMMUNITY RELATIONS

MEMORANDUM

DATE: May 24, 2007

TO: Downtown/Oregon 211 Task Force Members and Interested Parties

FROM: Teak Wall, COC; Kirstin Greene, Principal, COC; Matt Hastie, Principal, COC; Jerry Johnson, Johnson Gardner; Jessica Roberts, Alta Planning and Design

RE: **List of Funding Sources**

Funding to implement the plan will need to come from a variety of sources, including local, state or federal grants, improvements made as properties are redeveloped, and city and county transportation budgets.

1. TRANSPORTATION

A. Federal Funding Sources

Federal funding is primarily distributed through a number of different programs established by the Federal Transportation Act. The latest act, The Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU) was enacted in August 2005 as Public Law 109-59. SAFETEA-LU authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005-2009.

In Oregon, federal funding is administered through state (ODOT) and regional planning agencies. Most, but not all, of these funding programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. Federal funding is intended for capital improvements and safety and education programs, and projects must relate to the surface transportation system.

SAFETEA-LU

There are a number of programs identified within SAFETEA-LU that provide for the funding of bicycle and pedestrian projects.

Surface Transportation Program

The Surface Transportation Program (STP) provides states with flexible funds which may be used for a wide variety of projects on any Federal-aid Highway including the National Highway System, bridges on any public road, and transit facilities.

Bicycle and pedestrian improvements are eligible activities under the STP. This covers a wide variety of projects such as on-street facilities, off-road trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancillary facilities. SAFETEA-LU also specifically clarifies that the modification of sidewalks to comply with the requirements of the Americans with Disabilities Act is an eligible activity.

As an exception to the general rule described above, STP-funded bicycle and pedestrian facilities may be located on local and collector roads which are not part of the federally funded highway system. In addition, bicycle-related non-construction projects, such as maps, coordinator positions, and encouragement programs, are eligible for STP funds. ODOT estimates that they will receive an average of $84 million annually for this program through the lifetime of SAFETEA-LU.

Highway Safety Improvement Program
This program funds projects designed to achieve significant reductions in traffic fatalities and serious injuries on all public roads, bikeways and walkways. This program includes the Railway-Highway Crossings Program and the High Risk Rural Roads Program. ODOT estimates that they will receive an average of $14 million annually for this program through the lifetime of SAFETEA-LU. This program replaces the Hazard Elimination Program from TEA-21.

Railway-Highway Crossing Program (RHC)
Administered by ODOT, this program is funded by a set-aside of STP funds and is designated for improvements to highway-rail grade crossings to eliminate safety hazards. Funding for this program comes out of Highway Safety Improvement Program funds. ODOT estimates that they will receive an average of $3.1 million annually for this program through the lifetime of SAFETEA-LU.

Transportation Enhancements
Administered by ODOT, this program is funded by a set-aside of STP funds. Projects must serve a transportation need. These funds can be used to build a variety of pedestrian, bicycle, streetscape and other improvements that enhance the cultural, aesthetic, or environmental value of transportation systems. The statewide grant process is competitive.

Congestion Mitigation/Air Quality Program
The Congestion Mitigation/Air Quality Improvement Program (CMAQ) provides funding for projects and programs in air quality non-attainment and maintenance areas for ozone, carbon monoxide, and particulate matter which reduce transportation related emissions.

These federal funds can be used to build bicycle and pedestrian facilities that reduce travel by automobile. Recreational facilities generally are not funded. ODOT estimates that they will receive an average of $14 million annually for this program through the lifetime of SAFETEA-LU.

Recreational Trails Program
The Recreational Trails Program of the Federal Transportation Bill provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized and motorized uses. These funds are available for both paved and unpaved trails, but may not be used to

improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads.

Recreational Trails Program funds may be used for:

- ✓ Maintenance and restoration of existing trails
- ✓ Purchase and lease of trail construction and maintenance equipment
- ✓ Construction of new trails, including unpaved trails
- ✓ Acquisition or easements of property for trails
- ✓ State administrative costs related to this program (limited to 7 percent of a State's funds)
- ✓ Operation of educational programs to promote safety and environmental protection related to trails (limited to 5 percent of a State's funds)

Safe Routes to School (SR2S)
Under the SR2S Program, federal funds are administered by ODOT. Under the Oregon Safe Routes to School Program, approximately $3.7 million will be available for grants between 2006 and 2010. The grants can be used to identify and reduce barriers and hazards to children walking or bicycling to school. ODOT estimates that they will receive an average of $1.37 million annually for this program through the lifetime of SAFETEA-LU.

New Freedom Initiative
SAFETEA-LU creates a new formula grant program that provides capital and operating costs to provide transportation services and facility improvements that exceed those required by the Americans with Disabilities Act.

Community Development Block Grants
The Community Development Block Grants (CDBG) program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal CDBG grantees may "use Community Development Block Grants funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing CDBG funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs."

Rivers, Trails and Conservation Assistance Program
The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Parks Service program which provides technical assistance via direct staff involvement, to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies

available. Projects are prioritized for assistance based on criteria that include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation, and focusing on lasting accomplishments.

Land and Water Conservation Fund

The Land and Water Conservation Fund (LWCF) is a federally-funded program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. Funds can be used for right-of-way acquisition and construction. These funds are administered by the Oregon Parks and Recreation Department.

Transportation, Community and System Preservation Program

The Transportation, Community and System Preservation Program provides federal funding for transit-oriented development, traffic calming and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services and trade centers. The program is intended to provide communities with the resources to explore the integration of their transportation system with community preservation and environmental activities. The Transportation, Community and System Preservation Program funds require a 20 percent match.

B. State Funding Sources

Statewide Transportation Improvement Program

The Statewide Transportation Improvement Program (STIP) is ODOT's short-term capital improvement program, providing project funding and scheduling information for the department and Oregon's metropolitan planning organizations. It is a four-year program developed through the coordinated efforts of ODOT, federal and local governments, Area Commissions on Transportation, tribal governments and the public.

In developing this funding program, ODOT must verify that the identified projects comply with the Oregon Transportation Plan (OTP), ODOT Modal Plans, Corridor Plans, local comprehensive plans, and SAFETEA-LU planning requirements. The STIP must fulfill Federal planning requirements for a staged, multi-year, statewide, intermodal program of transportation projects. Specific transportation projects are prioritized based on Federal planning requirements and the different State plans. ODOT consults with local jurisdictions before highway-related projects are added to the STIP.

Oregon Revised Statute 366.514

Often referred to as the "Oregon Bike Bill," this law applies equally to bicycle and pedestrian facilities. The statute's intent is to ensure that future roads be built to accommodate bicycle and pedestrian travel. The statute requires the provision of bicycle and pedestrian facilities on all major arterial and collector roadway construction, reconstruction or relocation projects where conditions permit. The statute also requires that in any fiscal year, at lease one percent of highway funds allocated to a jurisdiction must be used for bicycle/pedestrian projects.

Oregon Transportation Infrastructure Bank

The Oregon Transportation Infrastructure Bank is a statewide revolving loan fund designed to promote innovative transportation funding solutions. Oregon's program was started in 1996 as part of a 10-state Federal pilot program. Additional legislation passed in 1997 by the Oregon Legislature establishes the program in state law and includes expanded authority. Eligible borrowers include cities, counties, transit districts, other special districts, port authorities, tribal governments, state agencies, and private for-profit and non-profit entities. Eligible projects include:

- ✓ Highway projects, such as roads, signals, intersection improvements and bridges
- ✓ Transit capital projects, such as buses, equipment, and maintenance or passenger facilities
- ✓ Bikeway or pedestrian access projects on highway right-of-way

Eligible project costs include preliminary engineering, environmental studies, right-of-way acquisition, construction (including project management and engineering), inspections, financing costs, and contingencies.

ODOT Administered Programs

State Pedestrian and Bicycle Grants, administered by ODOT, are grants for pedestrian or bicycle improvements on state highways or local streets. Grant amounts are up to $200,000, with a local match en-couraged. The grants require the applicant to administer the project, and projects must be situated in road or highway rights-of-way. Projects include sidewalk infill, handicap access, street crossings, intersection improvements, and minor widening for bike lanes. The grant cycle is every two years, coinciding with State Transportation Improvement Program (STIP) update cycle. Cities and counties may apply.

The Special Small City Allotment Program is restricted to cities with populations under 5,000. No locally funded match is required for participation. Grant amounts are limited to $25,000 and must be ear-marked for surface projects such as drainage, curbs, and sidewalks.

The program allows cities to leverage local funds on non-surface proj-ects if the grant is used specifically to repair the affected area.

The Federal Surface Transportation Program is used to con-struct, re-construct, and restore roads and complete operational im-provements on federal aid highways. In particular, Transportation Enhancement

Enhancement activities consist of projects that improve the cultural, aesthetic and environmental value of the state's transportation system. Twelve eligible activities, including bicycle and pedestrian projects, historic preservation, landscaping and scenic beautification, mitigation of pollution due to highway runoff, and preservation of abandoned rail-way corridors. A 10.27% minimum match is required. The funding cycle is every two years in conjunction with the STIP update process. Local governments, other public agencies (state, federal, tribal) and the five ODOT regions can apply.

The Oregon Transportation Infrastructure Bank provides loans and other financial assistance to local jurisdictions for federal-aid eli-gible highway and transit capital projects. Loans can cover all or a por-tion of an eligible project. Cities, counties, special districts, transit dis-tricts, tribal governments, ports, state agencies, and private for-profit and non-profit organizations can apply.

Measure 66 Funds – Oregon State Lottery

Ballot Measure 66 amends the Oregon Constitution to allow money from the State Lottery to be used for restoring and protecting Oregon's parks, beaches, watersheds and critical fish and wildlife habitat. Funds are coordinated by Oregon State Parks, and may be used for trail-related right-of-way acquisition and construction.

Special Transportation Fund

The Oregon Special Transportation Fund Program provides financial support to designated counties, transit districts and Indian tribal governments for special transportation services benefiting seniors and people with disabilities. The majority of the STF money (75 percent) is allocated on a population-based formula. The remaining funds are distributed by the Public Transportation Discretionary Grant Program.

Bicycle and Pedestrian Program Grants

The Pedestrian and Bicycle Grant Program is a competitive grant program that provides approximately $5 million every two years to Oregon cities, counties and ODOT regional and district offices for design and construction of pedestrian and bicycle facilities. Proposed facilities must be within public rights-of-way. Grants are awarded by the Oregon Bicycle and Pedestrian Advisory Committee.

Bicyclist Safety Mini-Grant Program

The Community Cycling Center Bicyclist Mini-Grant Program provides funding to public agencies and non-profit 501(c)(3) organizations to promote the safety of bicyclists in Oregon. Funding is available statewide through a grant to the Community Cycling Center from ODOT's Transportation Safety Division. Funding is available for projects targeting youth and/or adults, with a focus on projects that incorporate a strong educational element, especially in communities that do not currently have access to bike safety education resources. For communities that currently do have access to these resources, innovative and creative project proposals are highly encouraged. Applicants may apply for grants between $800 and $5,000.

Pedestrian Safety Mini-Grant Program

Administered by Oregon's Bicycle Transportation Alliance and the Willamette Pedestrian Coalition, the Pedestrian Safety Mini-Grant Program is funded through ODOT's Traffic Safety Division. The program provides funds to police departments around the state to stage crosswalk enforcement actions against motorists who fail to yield to pedestrians. In these operations, a decoy police officer attempts to cross a street at an intersection or marked crosswalk (crosswalk laws apply to unmarked crosswalks as well). If passing motorists fail to stop and yield for the pedestrian, they are issued either a warning or a citation. The operations include a media outreach component, with the

purpose of raising awareness around motorists' responsibility toward pedestrians. Grant funds may also be used to offer diversion classes that violators can take in lieu of paying tickets. Applicants may apply for grants up to $5,000.

Highway Bridge Rehabilitation or Replacement

Highway Bridge Rehabilitation or Replacement provides funding for local bridge rehabilitation or replacement, administered by ODOT, with a two-year funding cycle coinciding with the STIP update cycle. Any city or county with a structurally deficient or functionally obsolete bridge meeting criteria established by federal regulations or Federal Highway Administration policies may apply.

The Hazard Elimination Program carries out safety improve-ment projects to reduce the risk, number, or severity of accidents at highway locations, sections, and elements on any public road or public transportation facility. Applications are accepted at any time. Once the agency identifies a safety problem they should contact the appropri-ate Region staff and forward accident records, justification documents, and other pertinent project information. Region staff will then prepare a draft prospectus and send it to the Traffic Management Section to de-termine program eligibility. State and local agencies may apply.

The mission of the Transportation and Growth Management Program is to enhance Oregon's livability, foster integrated transporta-tion and land use planning and development that result in compact, pe-destrian, bicycle, and transit friendly communities. The program offers grants to local governments for transportation system planning and development assistance through the Quick Response and Community Outreach programs. The funding cycle is every two years.

The Public Lands Highways Discretionary Program is for proj-ects that improve access to or within federal lands of the nation. The program can fund engineering or construction of highways and roads, transportation planning and research, and other facilities related to public travel on roads to or through federal lands. This program pro-vides reimbursement rather than grants. This is a nationwide program with no guaranteed minimum for Oregon. The funding cycle is annual, with applications due in May. Selections in the following December are candidate projects to enter in the nationwide competition for funds. Any public agency may apply.

OECDD-Administered Programs

The Immediate Opportunity Fund provides street and road improvements to influence location or retention of firms providing primary employment or revitalize business or industrial centers where the invest-ment is not speculative.

The Special Public Works Fund has money targeted from lottery bond proceeds for loan and grant assistance to eligible public entities for the construction of infrastructure that leads to business location or expansion and the creation or retention of jobs. These are defined as providing "educational, commercial, recreational, cultural, social, or similar services to the public. This is program for which cities and counties may apply. The infrastructure must be needed primarily to support economic development, and 30% of jobs created or retained must be family wage jobs.

The Oregon Bond Bank pools municipal loans made under the Special Public Works Fund and Water/Wastewater Financing programs into state revenue bonds. The purpose of the bond bank is to provide small communities access to financial markets to finance infrastructure proj-ects at lower rates.

Oregon Tourism Commission provides matching grants up to $100,000, coordinated with OECDD's Needs and Issues process in or-der to give applicants more exposure to a greater number of potential funders. The focus is on tourism-related projects within a larger eco-nomic development strategy, with funds are for tourism projects such as marketing materials, market analyses, signage, visitor center devel-opment planning, etc., but not for construction of infrastructure. Non-profit agencies, municipalities, tribes, and ports may apply.

OECDD administers the state's annual federal allocation of Community Development Block Grants (CDBG) for non-metropolitan cities. The notational objective of the program is "the development of viable urban communities, by providing decent housing and a suitable living environment and expanding the economic opportunities, principally for persons of low and moderate income." Eligible projects include down-town revitalization projects such as clearance of abandoned buildings or improvement to publicly owned facilities or infrastructure such as curbs, gutters, storm drainage, sidewalks, streetlights, landscaping, wa-ter and sewer, and permanent benches. Matching funds are required.

C. Local Funding Sources

Local Bond Measures

Local bond measures, or levies, are usually initiated by voter-approved general obligation bonds for specific projects. Bond measures are typically limited by time based on the debt load of the local government or the project under focus. Funding from bond measures can be used for right-of-way acquisition, engineering, design and construction of pedestrian and bicycle facilities.

Tax Increment Financing/Urban Renewal Funds

Tax Increment Financing (TIF) is a tool using future gains in property taxes to finance the current improvements that will create those gains. When a public project (e.g., sidewalk improvements) is constructed, surrounding property values generally increase and encourage surrounding development or redevelopment. The increased tax revenues are then dedicated to finance the debt created by the original public improvement project. Tax Increment Financing typically occurs within designated Urban Renewal Areas (URA) that meet certain economic criteria and approved by a local governing body. To be eligible for this financing, a project (or a portion of it) must be located within the URA.

System Development Charges/Developer Impact Fees

System Development Charges (SDCs), also known as developer impact fees, represent another potential local funding source. SDCs are typically tied to trip generation rates

and traffic impacts produced by a proposed project. A developer may reduce the number of trips (and hence impacts and cost) by paying for on- or off-site pedestrian improvements that will encourage residents to walk or use transit rather than drive. In-lieu parking fees may be used to help construct new or improved pedestrian facilities. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical in avoiding a potential lawsuit.

Street User Fees

Some jurisdictions administer street user fees though residents' monthly water bills. The revenue generated by the fee is used for operations and maintenance of the street system, and priorities are established by the Public Works Department. Revenue from this fund can be used to maintain on-street bicycle and pedestrian facilities, including routine sweeping of bicycle lanes and other designated bicycle routes.

Local Improvement Districts (LIDs)

Local Improvement Districts (LIDs) are most often used by cities to construct localized projects such as streets, sidewalks or bikeways. Through the LID process, the costs of local improvements are generally spread out among a group of property owners within a specified area. The cost can be allocated based on property frontage or other methods such as traffic trip generation. Some cities share the cost of improvements with LID funds.

Business Improvement Districts

Pedestrian improvements can often be included as part of larger efforts aimed at business improvement and retail district beautification. Business Improvement Districts collect levies on businesses in order to fund area-wide improvements that benefit businesses and improve access for customers. These districts may include provisions for pedestrian and bicycle improvements, such as wider sidewalks, landscaping, and ADA compliance.

Other Local Sources

Residents and other community members are excellent resources for garnering support and enthusiasm for a bicycle and pedestrian facility. Cities can work with volunteers to substantially reduce implementation and maintenance costs. Local schools, community groups, or a group of dedicated neighbors may use the project as a project for the year, possibly working with a local designer or engineer. Work parties can be formed to help clear the right-of-way for a new path or maintain existing facilities where needed. A local construction company could donate or discount services. Other opportunities for implementation will appear over time, such as grants and private funds. Cities can look to its residents for additional funding ideas to expedite completion of improvements such as a bicycle and pedestrian system.

D. Other Funding Sources

American Greenways Program
Administered by The Conservation Fund, the American Greenways Program provides funding for the planning and design of greenways. Applications for funds can be made by local, regional or statewide non-profit organizations and public agencies. The maximum award is $2,500, but most awards range from $500 to $1,500. American Greenways Program monies may be used to fund unpaved trail development.

2. TOOLS FOR ENCOURAGING DOWNTOWN REDEVELOPMENT

A step to implementing the Molalla Downtown and OR 211 Plan will be inducing private-sector development activity consistent with established goals and objectives for the area. As currently planned, the study area is expected to realize development densities significantly higher than currently allowed in the area. While these densities may prove viable over the planning period, market intervention will expedite direct development activity. The following sections address challenges, strategies and potential solutions.

Tools
The financial viability of the targeted development forms in the study area represents the most significant impediment to achieving the desired development patterns. Addressing the viability gap must be a primary consideration in any strategy to realize more urban development forms in the Molalla Downtown and OR 211 over the short term. There are a number of direct and indirect ways in which viability can be improved. Direct methods include project specific actions, such as property tax abatements, SDC waivers and land write-downs. Indirect methods include public parking programs, directed public improvements and marketing.

In general, policies to impact development in the study area can be organized into two categories: incentive-based approaches and regulatory approaches. The incentive-based approaches are typically voluntary and offer various 'carrots' to developers to encourage them to develop targeted project. Regulatory approaches are not voluntary. The City can require that developers meet development objectives through policies and other requirements. It should be noted that requiring development forms that are not financially viable should not be expected to generate these development types without market intervention.

Alternative tools can be evaluated using the following three criteria:
- ✓ *Effectiveness. How great an effect is the policy likely to have on increasing density?*
- ✓ *Cost. What will it take to implement the policy?*
- ✓ *Equity. Who is likely to pay that cost?*

The following bullets summarize the different policy tools government can use to make it easier for developers to do what elected officials, and the citizens they represent, want. Many of these approaches are not necessarily focused on increasing density, but on

encouraging redevelopment and infill. Redevelopment and infill are important because of the already developed landscape in the Downtown.

- ✓ **Increased permitted density/Density bonus/Development rights transfer.** Allows densities at higher level than previously allowed
- ✓ **Mixed-Use zoning.** Allows flexibility to mix uses. This policy can be either an incentive ("allow") or a regulation ("require")
- ✓ **Regulatory relief: fee reduction.** Wide range: reduces SDCs, building fees, exactions, etc.
- ✓ **Regulatory relief: design standards.** Wide range: allows narrower streets, less parking, smaller setbacks, less landscaping
- ✓ **Land assembly.** Acquisition, by voluntary negotiation or eminent domain, of contiguous parcels to create large developable tracts
- ✓ **Subsidy for development/ public investment.** Direct grants or guaranteed or low-interest loans for land, infrastructure, parking, etc.
- ✓ **Property Tax Abatements.** Ten year property tax abatement for qualified residential and mixed-use development
- ✓ **Low Income Housing Tax Credits.** Tax credit program administered by OHCS
- ✓ **Reduce Planning and Information Costs**
- ✓ **Direct Grants/Parking Subsidy**
- ✓ **Split Rate Property Tax/Tax Abatement.** Measures to reduce ongoing property taxes.
- ✓ **Low Income Housing Tax Credits.** HUD, through the State of Washington, provides tax credits for affordable housing projects.

3. PARKS

The city's parks and recreation master plan will set local standards, including trail or open space connections between important destinations recommended in the Downtown/OR 211 Streetscape Plan. Implementation strategies will include:

- ✓ Amend parks and recreation, open space and trails master plans as necessary to be consistent with the goals and policies of the concept plan.
- ✓ Coordinate with the Parks and Recreation Master Planning process to identify appropriate amenities for new neighborhood parks.

- ✓ Communicate with the school district to determine if school facilities in such areas have the capacity for greater community use.
- ✓ Evaluate natural areas for capacity to support recreation uses, such as hiking or biking.
- ✓ Coordinate with private property owners regarding development of the trail system.
- ✓ Establish and implement an equitable approach to funding acquisition of park lands and development of park and recreational facilities through a mix of system development fees, user fees and other available revenue sources. Ensure that property owners or developers pay their share of these costs in an equitable manner.