Chapter 6
Freight Plan

Overview

This chapter presents a review and assessment of needs, deficiencies, policies and improvement options affecting the freight transportation system within the Medford Urban Growth Boundary (UGB). The freight transportation system includes trucking, pipelines, rail and air freight. Issues related to air freight are discussed in the general context of air transportation in Chapter 9. Freight rail is discussed in Chapter 11. Included in this chapter is a discussion of truck freight movement and pipelines, and it acknowledges the water transportation mode.

Truck Freight

Key transportation issues to be addressed in this section will include identifying appropriate modifications to the regional truck route system (as identified in the 2001-2023 Rogue Valley Regional Transportation Plan) to address the city’s truck routing requirements, and determining the adequacy of the existing truck route system to serve current and future truck-related demand (as measured by levels of congestion on truck routes and quality of access to significant truck trip generators). Included in this section is a discussion of the local and regional policy context for developing and maintaining the truck freight system, an evaluation of needs and deficiencies, and a discussion of various improvements.

Information contained in this memo was obtained largely from the 2001-2023 Rogue Valley Regional Transportation Plan, from the on-going Rogue Valley Freight Study, and from planning and zoning data supplied by the City of Medford. In addition, the city’s Level of Service study evaluated critical connections along the local and regional truck route system and provides insight into the benefits realized by the implementation of currently-funded roadway improvement projects that are expected to be completed within the 20-year planning horizon.

Policy Context and Background

The 1999 Oregon Highway Plan recognized the importance of good freight mobility to the State’s economy and added a policy to “maintain and improve the efficiency of freight movement on the state highway and access to intermodal connections. The State shall seek to balance the needs of long distance and through freight movements and local transportation needs on highway facilities in both urban areas and rural communities.” Through the Transportation Planning Rule and guidelines prepared by ODOT for preparation of local transportation system plans, local and regional governments are encouraged to improve planning coordination between public investments in highways and other investments (both public and private) in the freight movement infrastructure.

The Regional Transportation Plan (RTP), prepared for the Medford Urbanized Area by the Rogue Valley Metropolitan Planning Organization (RVMPO) and adopted in 2002, establishes policy direction for facilitating freight mobility within the Medford UGB. The RTP encourages “Local governments ... to take actions to promote access to all modes of transportation for freight movements to serve the needs of residents and businesses in the RVMPO planning area. Local actions include ensuring access to freight facilities via the local street system and actively supporting the freight transportation policies set forth in the Oregon Highway Plan ...” (Policy 15-1). Supporting actions include identifying roadway obstacles and barriers to efficient truck movement on state highways, improving safety, encouraging the use of Intelligent Transportation System Commercial Vehicle Operation technology, funding and improving roadways to accommodate freight movement, and other actions.
Of particular significance to the development of the City’s TSP are the policies related to identifying barriers to efficient freight movement, and improving access to intermodal and/or other significant freight facilities (particularly the airport, truck stops, and major truck generating businesses). Development, maintenance and improvement of continuous connections between freight generators and inter-regional routes, such as Interstate 5 and Highway 62 are of key importance.

The City’s existing Comprehensive Plan identifies the general need to assure “maximum mobility for all Medford residents” and to “facilitate the safe movement of inter-neighborhood vehicular traffic within and through the community, consistent with adjacent land use requirements” but does not specifically address freight mobility. These general goal statements were reviewed and modified as appropriate during the development of the TSP. New goals, policies and implementation strategies are included in Chapter 13.

Needs and Deficiencies

Chapter 3 of the TSP includes an analysis of the existing truck freight system and current deficiencies with that system. Much of this information was obtained from studies conducted by the RVMPO during preparation of the 2001-2023 Rogue Valley Regional Transportation Plan, in particular the on-going Rogue Valley Freight Study. This study includes an assessment of current freight practices in the Rogue Valley area for highways, railways, air transportation and pipelines. It addresses intermodal connectors and facilities, principal manufacturing facilities, warehouses and distribution centers. It identifies principal transportation providers in the region and the nature of the services that they provide. The study also addresses current strengths and weaknesses with the freight mobility system in the greater Medford area, and suggests opportunities for improvement.

As indicated in the RVMPO’s freight-related studies, one of the greatest assets of the region is its central location on the west coast that results in it being an intermediate stopping point for long-distance freight movement. The area also benefits from Oregon law that permits triple trailers. As triples are not permitted in California, the Medford area has become a hub of trucking activity partly because southbound trucks must drop a trailer before entering California, while northbound trucks heading into Oregon can add a trailer. Additionally, because of its location and relative isolation from other large urban centers, Medford has become a distribution hub from southern Oregon and northern California.

According to the Rogue Valley Freight Study, the number of freight and freight-related companies in the Medford area is high. For example, there are at least 54 companies in the area engaged in trucking and/or transportation brokering. The Oregon Employment Department’s report 2000 Regional Economic Profile, indicates that there was a 36 percent increase in the number of jobs in the Transportation and Public Utilities sector in the area between 1990 and 2000. Most of these jobs were in trucking. The 1999 ODOT publication “Freight Moves the Oregon Economy” notes that every 100 jobs in Oregon’s transportation-dependent business sectors generate 85 to 154 additional jobs. Transportation-related sectors include manufacturing, transportation, communication, public utilities and wholesale trade. Based on the Oregon Employment Department’s 2001 data, a total of 14,500 (19.4% of the labor force) were employed in Jackson County in these sectors. Using the multipliers identified above, the 14,500 transportation-related jobs translates into a range of between 12,325 and 22,330 additional jobs.

The freight transportation system consists of streets and highways where the demand for access and circulation by large vehicles is expected to be the highest. The foundation of this system are the critical “backbone” routes identified by the Federal Highway Administration as the National Highway System. National Highway System Routes are intended to include the most significant highways in the United States for the movement of people and freight. Within the Medford UGB, this system includes Interstate 5, Highway 62 and Highway 99. Most truck traffic in the region and the state moves on the National Highway System. In addition, the 1999 Oregon Highway Plan designated a State Highway Freight
System based on freight volume, connectivity and linkages to major intermodal facilities. Interstate 5 is the only highway in the Medford UGB that has been designated as a State Freight Highway.

The Rogue Valley area’s 2001-2023 Rogue Valley Regional Transportation Plan (RTP) identified additional routes that are considered to be of regional significance for the movement of freight. These routes are illustrated in Figure 3-4 in the existing transportation conditions chapter. According to the RTP, of freight-related firms with more than 100 employees in the regional planning area, only one company is more than ¼ mile from a designated freight route. Within the Medford UGB, areas with significant commercial and manufacturing activity are generally located near the I-5 interchanges, along Highway 99 or along Highway 62, resulting in heavy truck volumes on these facilities. Because of their location within industrial and commercial corridors, Biddle Road and Table Rock Road also experience a high volume of truck activity.

The 2001-2023 Rogue Valley Regional Transportation Plan identifies 10 locations within the RVMPO area that are currently experiencing the highest volumes of truck traffic. Six of these locations are within the Medford UGB and include:

- Highway 99 and McAndrews Road
- Biddle Road and Table Rock Road
- Highway 62 and Highway 99
- Interstate 5 ramp terminal and Highway 62
- Court Street and Main Street
- Biddle Road and Airport Road

According to the Rogue Valley Freight Study, one of the most serious issues facing freight transportation in the region is the declining condition of Interstate 5, particularly its bridges. Many of the bridges on the I-5 system are cracked and need to be repaired or replaced. In the interim before replacement, weight restrictions have been put in place in a number of locations and detours established for heavier tractors and trailers. Other weaknesses that have been identified with the freight transportation system in the Medford area include: the lack of viable alternative routes when regular routes are blocked during construction (such as the experience with I-5 during the 2003 viaduct seismic retrofit project through Medford); daily out-of-direction travel to avoid bottlenecks and congestion; and restrictions that prevent the movement of oversized freight at certain times.

In a shipper survey conducted for the Rogue Valley Freight Study very specific problem locations were identified and some suggestions were made for improvements. The main issues raised generally related to congestion (particularly on Highway 62), difficult or awkwardly designed intersections at various locations (including Crater Lake Avenue at Vilas Road, and the right turn from Stewart Avenue to northbound Highway 99), lack of north/south truck connections through town other than I-5 and Highway 99 that goes through downtown, poor signal timing along several major arterial roads that results in a lot of stop-and-go driving, and the inability of Vilas and Table Rock Roads to accommodate heavy vehicles.

Many of the congested locations identified as problems during the RVMPO survey of trucking companies were also identified during the City’s LOS Study. Improvements to these locations, including both signal timing improvements and roadway/turning lane improvements, are identified and discussed in the Street Plan. Further discussion of truck freight mobility within the Medford UGB is presented in Table 6-1.
### Table 6-1

**RVMPO Freight-Related Street Improvements**

<table>
<thead>
<tr>
<th>Location</th>
<th>Improvement Suggested</th>
<th>Priority</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway 62, I-5 to Table Rock Road</td>
<td>Establish a traffic signal interconnect to minimize truck stopping</td>
<td>High</td>
<td>Should be addressed by City and ODOT as a traffic signal coordination priority</td>
</tr>
<tr>
<td>Foreign Trade Zone area</td>
<td>Needs improved connection between the FTZ and Highway 62 expressway</td>
<td>High</td>
<td>Proposed extension of Coker Butte Road west of Highway 62 to address this need.</td>
</tr>
<tr>
<td>Highway 62 at Delta Waters</td>
<td>Address congestion problems</td>
<td>High</td>
<td>Existing LOS E (V/C = 1.01) and future LOS F based on LOS Study. Identified for improvements.</td>
</tr>
<tr>
<td>Crater Lake Avenue at Vilas and Highway 62</td>
<td>Improve traffic circulation</td>
<td>High</td>
<td>Identified for improvements.</td>
</tr>
<tr>
<td>Airport Road at Table Rock Road</td>
<td>Add turning lanes</td>
<td>Medium-High</td>
<td>County traffic operations analysis should address this need</td>
</tr>
<tr>
<td>Table Rock Road, other locations</td>
<td>Add turning lanes</td>
<td>Medium-High</td>
<td>Evaluate and consider as part of the Table Rock roadway improvement project</td>
</tr>
<tr>
<td>W. Main Street at Ross/Lozier</td>
<td>Address congestion problems</td>
<td>Low</td>
<td>2023 LOS F based on LOS Study. Identified for improvements.</td>
</tr>
</tbody>
</table>

### Proposed City Freight Routes

The designation of a city truck freight route system is a useful tool for identifying and prioritizing project locations that affect freight movement. This system can also be used to identify locations where street improvements could be made to enhance the movement of large vehicles and/or to provide access to destinations with significant truck activity.

As noted above, Figure 3-4 in the existing conditions chapter illustrates the regional freight route system as developed by the Rogue Valley Metropolitan Planning Organization (RVMPO) and incorporated into the 2001-2023 Rogue Valley Regional Transportation Plan. This freight route system includes a State Freight Highway (I-5), and National Highway System facilities (I-5, Highway 62 and Biddle Road) along with a number of city arterial and collector streets. Also included in Figure 3-4 are specific locations where a significant level of truck activity is currently being generated, existing industrial and commercial zoning within the UGB where truck activity might occur, and the location of the Rogue Valley International-Medford Airport and nearby Foreign Trade Zone which may also generate truck activity.

The regional freight route system was used as a starting point for development of a city truck freight route system. In developing this system it’s important to note that designation of city truck routes would not affect localized truck circulation for business access and deliveries. Truck routes are meant to direct through truck trips (e.g., regional truck traffic or trucks traveling between more distant portions of the city to facilities where truck traffic is more appropriate considering such factors as existing and proposed traffic volumes, roadway width, pavement design, surrounding land uses and other consideration.

Figure 6-1 reflects the proposed truck freight route system within the Medford Urban Growth Boundary (UGB). The most significant change from the RTP regional freight system illustrated in Figure 3-4 is the change in designation of Highway 238 from McAndrews Road to Rossanley Drive, which occurred with completion of the Big X project west of the I-5 North Medford Interchange.

Several additional truck freight facilities have been proposed to be added to the regional routes shown in Figure 3-4. These routes serve areas where existing land use and/or zoning provide for industrial or
Figure 6-1: Medford Designated
Truck Routes and Other Freight Facilities

Freight Route Types
- City Truck Freight Routes
- State Freight Highway and National Highway System Routes
- Other National Highway System Routes
- Central Oregon and Pacific Railroad
- Locations with Heavy Truck Activity

The Geographic Information Systems (GIS) data made available on this map are developed and maintained by the City of Medford and Jackson County. GIS data is not the official representation of any of the information included. The maps and data are made available to the public solely for informational purposes.

There may be errors in the maps or data. The maps or data may be outdated, inaccurate, and may omit important information. The maps or data may not be suitable for your particular use. This information is being provided "as is" or "with all faults". The entire risk as to the quality or performance is with the buyer and if information is defective, the buyer assumes the entire cost of any necessary corrections or servicing.
commercial business activity which could, as a result, generate significant levels of truck activity or need truck-related accommodation. Proposed additions to the truck freight system include:

- Bullock Road from Highway 62 northward to the Medford Airport,
- New arterial alignment in the vicinity of Medco Haul Road from Highway 62 to West Vilas Road,
- Easterly extension of McAndrews Road (constructed during 2002/2003) to connect with Foothill Road,
- New alignment of North Phoenix Road to connect with Foothill Road at Hillcrest Road, and
- Garfield Road extension from Highway 99 to Barnett Road at Highland Drive.

A number of routes designated as regional freight routes are not included in the proposed City truck route map. Generally the regional freight routes not included in the proposed City truck route map run through residential areas (along roads typically classified as collector streets), downtown Medford (e.g., the former alignment of Highway 238), or areas that are served by other, more preferable roadways. It is proposed that these routes also be removed from the RVMPO regional freight route map. They include the following:

- Delta Waters Road between Crater Lake Avenue and Foothill Road,
- Beall Lane east Highway 99 to Merriman Road,
- Merriman Road between Beall Lane and Table Rock Road,
- Sage Road southeast of Posse Lane (Sage Road is proposed for realignment to connect with Columbus Avenue and this new alignment should be designated for trucks),
- W Main Street between Central Avenue and Columbus Avenue,
- W 8th Street between Central Avenue and Columbus Avenue,
- Hillcrest Road between Black Oak Drive and the existing intersection with North Phoenix Road,
- Black Oak Drive between Hillcrest Road and Barnett Road,
- North Phoenix Road between Princeton Way and Hillcrest Road, and
- Barnett Road between Oakdale Avenue and Holly Street.

**Truck Freight-Related Improvement Strategies**

As discussed in this chapter, good freight mobility and accessibility is essential to the ongoing economic vitality of the Medford/Jackson County region. While a detailed analysis of freight issues in currently underway by the Rogue Valley Metropolitan Planning Organization (RVMPO), several initial strategies have been identified. Specific actions that should be taken by the City of Medford include the following:

- Approve the freight route system map, install signage and focus improvements on accommodation of large vehicles along these routes.
- Remove inappropriate truck route signage in downtown Medford that directs motorists to the old route for Highway 238.
- In cooperation with RVMPO, Jackson County and ODOT, identify street improvements that enhance freight mobility. Table 6-1 provides insight into a preliminary list of these improvements including locations where the City’s LOS Study identifies specific improvement needs. Establish a priority list of improvements for implementation and secure funding.
- Address deficient bridges along freight routes, in particular, McAndrews Road over Bear Creek including assigning weight restrictions as necessary. Evaluate and develop improvement projects to address these deficiencies, secure necessary funding, and manage freight traffic during
construction to minimize adverse impacts on both freight mobility and local multi-modal traffic circulation.

- Work cooperatively with freight providers and other jurisdictions to balance freight mobility with community livability including:
  - Increase freight transport safety awareness
  - Reduce the number and severity of commercial transport-related accidents
  - Enforce regulations related to safe transport of hazardous materials
  - Address issue of commercial vehicles blocking travel lanes on arterial and collector streets while loading or unloading during peak travel periods
  - Reduce through truck traffic on residential streets

**Pipelines**

The only major pipeline transportation system in the Medford area includes several natural gas distribution lines located along the I-5 corridor between Grants Pass and Ashland. Within the Medford area natural gas distribution is operated by Avista Utilities. All other pipelines in and throughout the Medford area include transmission lines for electricity, cable television and telephone services, as well as pipeline transport of water and sanitary sewer. Medford also has two major water transmission pipeline (36 inch and 48 inch) from Big Butte Springs in the Cascade Mountains.

Because there is no significant pipeline transportation system within the Medford UGB and the majority that exist are for local utilities, no specific projects for this area of transportation are provided for in the Medford TSP. The City should establish policy to promote accessibility to, protection of and siting of appropriate locations for regional pipeline systems within the City.

**Water Transportation**

There are no commercially-navigable waterways in Medford. Accordingly, no projects for this transportation system are provided for in the Medford TSP.