Section 2

Existing Conditions

Existing Conditions

INTRODUCTION

The development of this transportation system plan began with an assessment of the existing land use and transportation system conditions. This section describes existing land uses and conditions for all transportation modes that the transportation system plan will address, including cars, trucks, bicycles, pedestrians, transit, air, and marine facilities. The purpose of this section is to provide an inventory description of existing facilities while setting the stage for a basis of comparison to future conditions.

LAND USE

Boardman was incorporated in 1927. With construction of the John Day dam down river in the early 1960's, the town was relocated from its original site on the Columbia River to higher ground. The dam provided irrigation to open vast tracts of dry land to major agricultural enterprises. This in turn allowed the Port of Morrow to capitalize on the agricultural production and provide processing and shipping of agricultural products at the Port's facilities in Boardman. Railroad and marine facilities serve the Port of Morrow making it one of the largest in volume in the Columbia River basin. The Port also owns and operates an airport west of town, outside the UGB.

As will be documented later in the **Future Conditions Analysis** section of this report, the 1990's have been a period of phenomenal growth for Boardman. During the past decade Boardman has been one of the fastest growing communities in the state, growing from 1,387 people in 1990 to 2,795 by 1998, an increase of 102 percent or 13 percent per year on average. Growth has been and continues to be stimulated by a number of regional economic development forces including industrial development at the Port of Morrow. Growth is projected by year 2020 to be 4,523 persons in the city and 5,129 within the urban growth area.

The city has an abundance of developed and vacant industrial land north of the freeway that has coveted access to rail, surface and water transportation to move goods to national and international destinations. The majority of this land is owned by the Port of Morrow and leased to industries; most of the rest has been sold by the Port to industries that have located in the Port industrial district. This industrial land provides several hundred jobs to residents as well as others who commute to the city. Boardman is becoming an economic hub of regional significance. Transportation facilities have a major influence on Boardman's economic growth and its development pattern. Interstate 84 splits the community roughly one-third to the north and two-thirds to the south. The freeway has two interchanges. The interchange at the west-end of town provides access to commercial services and residential areas and the other, at the east-end, predominantly serves the Port of Morrow and industrial development. Figure 2 identifies zoning within the City of Boardman.

Commercial services are located both north and south of the freeway. The city has over 200 acres of vacant commercially-zoned land, more than will be needed within the next 20 years. Most of the vacant land is south of the freeway. The commercial district to the north, which includes City Hall, service stations, some restaurants, two motels and other miscellaneous commercial businesses, as well as the high school, is substantially built-out. Some redevelopment is occurring on the north side and the potential exists for more redevelopment in the future.

About 90 percent of the city's future residential development will occur south of the freeway based on the city's vacant land inventory. At least a 20-year supply of land exists for both single family and multi-family residential development. Residential development on the north is a mix of single family and multi-family developments. Residential development on the south is characterized as medium to low density.

Figure 2 City of Boardman Zoning Map single family housing. Affordable housing is generally plentiful but the city lacks higher income housing. One of the goals of the Strategic Plan is to promote a variety of housing and neighborhoods for all economic and age groups. Sidewalks are required in new subdivisions and there are several bike/pedestrian paths.

The 1997 buildable lands analysis found that new residential subdivision development is occurring at reasonable densities. However, the abundance of residential land and readily available city sewer and water facilities throughout the city have produced a disconnected residential development pattern south of the freeway where most new development is occurring. In addition, many newer residential developments are relatively distant from commercial services. These factors produce heavy reliance on autos for traveling within the community.

TRANSPORTATION FACILITIES

The City of Boardman's transportation system includes facilities that serve several different modes. All of these facilities are identified and discussed in detail in the remainder of this section.

Roadway Facilities

All public roadways within the City of Boardman are operated and maintained under the auspices of one of three jurisdictions – the Oregon Department of Transportation (ODOT), Morrow County, and/or the city. The following paragraphs highlight the existing roadway network, which is illustrated in Figure 3.

State Facilities

Interstate 84

The City of Boardman is conveniently located adjacent to Interstate 84, providing the local community with a high-speed facility to travel to adjacent communities such as Hermiston, Umatilla, and Pendleton. Interstate 84 is a major trucking route and has, in part, facilitated employment growth associated with industrial and shipping activities through the Port of Morrow and the city in general.

Interstate 84 is maintained by ODOT, which classifies the roadway as being of an *Interstate Level of Importance* as described in ODOT's *1991 Oregon Highway Plan* (Reference 1). The primary function of an Interstate Highway is to provide connections and links to major cities, regions of the state, and other states. Interstate 84 has a four-lane cross section and a 65 mile per hour posted speed limit.

Two grade-separated interchanges provide access to Boardman at opposite ends of the city. One interchange serves Main Street while the other provides access to the Port of Morrow via Laurel Lane. Interstate 84 disrupts the continuity of the city as it divides the city into two distinct geographic areas. In addition, the manner in which properties have developed require residents to cross the interstate, primarily on Main Street, on a daily basis. Most of the residential lands are located to the south of the interstate. The majority of the employment opportunities and services are located to the north of the interstate.

City of Boardman Facilities

The City of Boardman's roadway system is comprised of a number of streets that collectively feed the two Interstate 84 interchanges. The east-west orientation of the Columbia River, Interstate 84, the BPA Easement, and the Union Pacific Railroad right-of-way all limit the number and extent of north-south connections through the city and have shaped the local roadway network.

Figure 3 Existing Roadway Network

The City of Boardman Comprehensive Plan, through Chapter 12, identifies the need to develop an interim and ultimate street classification system. The intent of the interim plan is to provide adequate capacity and reasonable levels of service for low volume conditions through use of relatively narrow streets and simplified traffic control devices. The intent of the ultimate plan is to provide for a more robust roadway network capable of handling increased traffic volumes through a system of arterials and intersection improvements. The comprehensive plan does not, however, present a functional classification system for roadways within the city.

On-Street Parking

Limited striped on-street parking is provided along Front Street on both the north and south sides of Interstate 84. On-street parking is also provided on both sides of First Street near the post office. Within the residential areas, several homeowners appear to park on the shoulders of local roads, though parking spaces are not striped.

TRAVEL MODES/CONNECTIVITY OF MODES

An inventory of the existing street system was conducted within the urban growth boundary with the intent of identifying the locations of sidewalks, bike lanes, on-street parking, paved/unpaved roadways, traffic control devices and signing, and posted speed limits. The findings of that inventory are summarized in the following paragraphs

Pedestrian System

The City of Boardman's existing pedestrian network system includes sidewalks along many of the local roads and a multi-use path along Main Street and Wilson Road. Figure 4 illustrates the roadways within the city that currently have multi-use paths or sidewalks on one or both sides of the street.

As is typical with many rural cities, the existing pedestrian system in the city is relatively complete in some core areas and virtually non-existent in others. The majority of the sidewalks are provided within residential areas. While the multi-use paths along Main Street and Wilson Road have significantly enhanced the city's pedestrian network, there is still a lack of sidewalks and pedestrian crossings along several key roadway facilities in the study area.

Bicycle System

The City of Boardman currently has two designated bicycle facilities/multi-use paths. As indicated in Figure 4, one of the paths provides connections from Marine Drive south to Front Street on the north side of Interstate 84. Currently, the path is not continuous, with the most notable break dictated by the narrow bridge carrying Main Street over the Union Pacific Railroad right-of-way. The second path travels from a point south of Interstate 84 to Wilson Road and then along Wilson Road between Faler Road and Anderson Road. It is the city's desire to ultimately provide bike routes to all areas of the town while avoiding vehicular conflicts where possible.

The City of Boardman has been recently notified that it has been awarded an Enhancement grant from the federally funded Transportation Efficiency Act for the 21st Century (TEA-21) program. These funds will enable the city to provide pedestrian and bicycle facilities on the Main Street bridge over the Union Pacific railroad right-of-way and continuous sidewalks and bicycle lanes along Main Street from the bridge to Interstate 84.

Figure 4 Existing Pedestrian and Bicycle System

PUBLIC TRANSPORTATION SYSTEM

Limited public transportation serves within the City of Boardman are available through the county, the local school district, the RSVP/CAPECO program, and Greyhound.

Morrow County Special Transportation Program

Morrow County provides two public transportation programs that serve the City of Boardman. A senior bus service is available to groups by appointment and provides service for seniors, disabled persons, and low-income persons. Other users are welcome as long as they do not displace the primary users (i.e., seniors, the disabled, and the disadvantaged). A dial-a-ride service is also available by appointment to serve the same audience. Both programs are funded through a tobacco tax and rely on a volunteer pool of drivers. While increased usage of these services is desirable, there are no current or pending plans to expand public transportation services to the area.

Relevant Information

- Program Contact: John Wenholz, County Commissioner, Phone (541) 922-3941
- Program Coordinator: Barbara Hayes, Phone (541) 676-5667
- Ride Scheduling Contact: Boardman Senior Center, Phone (541) 481-3257
- Scheduling Hours: Monday-Friday 9:00 a.m. to 5:00 p.m.
- Service Area: The Morrow County Special Transportation Program serves all of Morrow County and has provided trips out of county for medical services including trips to the Tri-Cities area of Washington State. Because there are no vans in Boardman, no individual trips are provided as they are in other parts of the county.
- Equipment/Facilities in Boardman (As of March 31, 1999):
 - 1. 1987 Ford 14 Passenger Van 60,075 miles (Handicapped accessible)
 - 2. 1991 Ford 14 Passenger Van 62,812 miles (Handicapped accessible)

Other Services

Boardman has intercity bus service provided by Greyhound Lines, Inc. Currently, Lines 5547, 5535, and 5549 depart from Boardman daily for Portland at 6:25 a.m., 11:50 a.m., and 3:35 p.m., respectively. Route 5530 departs Portland at 12:50 p.m. daily and makes a scheduled stop in Boardman at 4:10 p.m. with continuing service to Boise, Idaho and Salt Lake City, Utah.

The local school district provides school bus service within portions of the city and to the neighboring community of Irrigon (Irrigon students are bused to Riverside High School in Boardman and Boardman students are bused to the Columbia Middle School in Irrigon) on school days.

Finally, the RSVP/CAPECO program based in Pendleton provides one additional transportation option. Under the RSVP/CAPECO program, qualified drivers are reimbursed for transporting others in personal vehicles when the local county transportation service is unavailable. This program requires an initial application process and authorization prior to persons being qualified for reimbursement. Reimbursement is then available for qualified trips on a per mile basis. The RSVP Program Contact is Don Thorndike, phone (541) 278-5669.

General Comments

Discussions with local agency staff and TAC members indicated that, with the exception of school bus and Greyhound service, the public transportation services available are not as well used as they could be. A commonly repeated theme was the notion that there is a need to create greater awareness of the programs among community members. Community input stressed the need for convenient access to public transit service for the elderly. It was further observed that the population under the driving age is particularly under-served and, as the community grows in geographic size, their overall accessibility will be diminished. Although enhanced service is desired, no segment of the city's population was specifically identified as being without transportation service.

Aside from the aforementioned services, for most of the city's residents, private transportation is the only available option to get to the local medical, social, and retail services and the educational and employment opportunities located in adjacent communities.

AIR TRANSPORTATION SYSTEM

The City of Boardman has access to several airport facilities. The nearest airfield is the Boardman Airport located five miles west of Boardman, but it serves only small aircraft and U.S. Navy operations at this time. The airport, which is owned by the Port of Morrow, was originally designed to service heavy bombers and large commercial aircraft, suggesting that future expansion of the airport's operations to include larger aircraft is feasible. The airport's runway is 4,200 feet long and serves as a focal point for a growing airport industrial park. The airport has medium intensity runway lighting and in 1998 there were three aircraft based at the airport and an estimated 1,500 aircraft operations annually.

Regional freight cargo and air passenger services are provided at the Eastern Oregon Regional Airport at Pendleton, located approximately 45 miles southeast of Boardman via Interstate 84, and at the Tri-Cities Airport located approximately 55 miles to the north in Pasco, Washington. Both the Eastern Oregon Regional Airport and the Tri-Cities airport provide regional passenger air service, connecting to national and international air service at the Portland International Airport. In addition, the City of Hermiston owns and operates a general aviation airport that offers charter service.

RAILROAD TRANSPORTATION SYSTEM

Freight rail service is available via the Union Pacific Railroad. The Union Pacific mainline, which roughly parallels Interstate 84, serves 30 to 40 trains daily pending local and regional shipping needs and market fluctuations. According to ODOT's Rail Section, the rail line carries approximately 35 million tons of freight annually - the equivalent of nearly 1 million tractor trailer loads of freight.

Union Pacific's track is classified as being in Federal Railroad Administration Class IV condition, permitting freight trains speeds of 60 miles per hour and passenger trains speeds up to 79 miles per hour. ODOT's Rail Section identified four rail shippers in Boardman: Boardman Farms, Lamb-Weston, Oregon Potato, and the Port of Morrow.

The rail line through Morrow County was serviced by passenger trains in the past. When the passenger train was operating between Portland, Boise and points east, approximately 12,000 passengers annually boarded at Oregon stations outside Portland. By comparison, the Portland-Eugene Willamette Valley Rail Corridor serves over 140,000 passengers a year. Amtrak passenger service has been discontinued and the last passenger train operated over the line on May 10, 1997. When passenger service was operated, Morrow County was served from the station at the Hinkle railyards, which is located one mile south of Hermiston. There was no passenger stop in Morrow County.

ODOT's Rail Section had no record of any grade crossing problems on the segment of track in the City of Boardman. All of the major roadways crossings were grade separated with the remainder being very low volume local roads. It was further noted that the Port of Morrow has narrow bridge over the tracks in Boardman that provides port access. Ultimately, the Port would like this structure replaced.

There are no railroad branch lines in the City of Boardman. Further, according to ODOT, no trackage in Morrow County needs rehabilitation.

MARINE TRANSPORTATION SYSTEM

Marine transportation is available to the City of Boardman though the Port of Morrow. Within the Port, Tidewater Terminal maintains a large container terminal and additional docking facilities are available that support transfer of wood chips, aggregates, and grain. Overall, the Port of Morrow maintains six docks, two berths for barges, and two overhead cranes for loading purposes. Four large companies serving the Port of Morrow handle approximately 2,000 containers at the docks each month (Reference 2).

PIPELINE TRANSPORTATION SYSTEM

There is an U.S. Transmission natural gas pipeline serving the co-generation plant located in the Port of Morrow. The residential areas of the community have natural gas pipeline service provided by Cascade Natural Gas. No other major pipelines within the City of Boardman were identified at the time the TSP was prepared.

TRAFFIC OPERATIONS ANALYSIS

Ten intersections within the city were selected for operational analysis under 1998 existing conditions. Those intersections include:

- Marine Drive/Main Street
- Columbia Avenue/Main Street
- Olson Road/Columbia Avenue
- Laurel Lane/Columbia Avenue
- Boardman Avenue/Main Street

- Front Street/Main Street
- Interstate 84 Westbound Ramp/Main Street
- Interstate 84 Eastbound Ramp/Main Street
- Front Street/South Main Street
- Wilson Road/South Main Street

Traffic Control

All of the study intersections within the City of Boardman are currently unsignalized. Figure 5 illustrates the existing lane configurations and traffic control devices at each of the study intersections. Traffic operations at each of the intersections were examined during the weekday p.m. peak hour. The p.m. peak period represents the worst case condition for traffic operations on the transportation system. Travel patterns during this weekday time period typically combine commuting, shopping, and recreational trips, thus generating higher traffic volumes on the transportation system than during any other time period or day of the week.

Traffic Volumes

Weekday p.m. peak hour manual traffic volume counts at the intersections were conducted in November 1998. Manual turning movement traffic counts were conducted between 4:00 p.m. and 5:30 p.m. on a mid-week day. The highest one-hour flows during these periods were used in this study.

Figure 5 Existing Lane Configurations and Traffic Control Devices Based on the turning movement counts conducted at study area intersections, the system-wide p.m. peak hour of traffic on a typical weekday afternoon was estimated to occur between 4:00 and 5:00 p.m. Existing weekday p.m. peak hour traffic volumes are shown in Figure 6. Traffic volumes have been rounded to the nearest five vehicles per hour.

It should be noted that the community also identified congestion concerns occurring on weekdays between 3:00 and 3:45 p.m. Specifically, the intersections of Boardman Avenue/Main Street and Columbia Avenue/Main Street were identified as areas of concern during this time period. The congestion is related to the near-simultaneous release of students from the Riverside High School and the change of shifts at a major local employer. Subsequent field study of this condition determined that the weekday p.m. peak hour represented worst-case conditions and, accordingly, no further analysis of the 3:00 p.m. time period was completed.

Level of Service Analysis

Using the weekday p.m. peak hour turning movement volumes shown in Figure 6, an operational analysis was conducted at each of the study area intersections to determine existing levels of service. All level of service analyses described in this study were conducted in accordance with the 1994 Highway Capacity Manual, published by the Transportation Research Board (Reference 3). Appendix "B" summarizes the level of service concept.

To ensure that this analysis was based on a reasonable worst case scenario, the peak 15 minute flow rate during the weekday p.m. peak hour was used in the evaluation of all intersection level of service analyses. For this reason, the analyses reflect conditions that are only likely to occur for 15 minutes out of each average weekday p.m. peak hour. Traffic conditions during all other weekday periods will likely operate under better conditions than those described in this report. (It should be noted that peak seasonal traffic conditions typically occurs during the summer harvest season, hence Design Hour Volumes may be up to 25 percent higher than the peak hour analyzed in the TSP.)

Figure 6 Existing Traffic Voumes, Weekday PM Peak Hour

Unsignalized Intersections

For unsignalized two-way stop-controlled (TWSC) intersections, level of service (LOS) is based on an intersection's capacity to accommodate the worst, or critical, movement. Typically, the left-turn from the stop-controlled approach is the most difficult movement for drivers to complete at a TWSC intersection. This is due to this movement being exposed to the greatest potential number of conflicting, higher-priority movements at the intersection. Available gaps in the through traffic flow of the uncontrolled approach(es) are used by all other conflicting movements before the side-street left-turn can be negotiated. Therefore, the number of available gaps for the side street left-turn to negotiate its movement safely is likely to be substantially lower than any other movement. As a result, the side-street left-turn typically experiences the highest delays and the worst level of service. For the Interstate 84 corridor through the City of Boardman, ODOT stipulates that major street level of service "A" through "C" are considered acceptable. Table 1 summarizes the level of service results for the unsignalized study intersections.

Intersection	Critical Movement	v/c	Average Delay (sec/veh)	Critical Movement LOS	Major Street LOS
Marine Drive/Main Street	Westbound	0.02	3.7	A	A
Columbia Avenue/Main Street	Westbound	0.13	5.0	А	А
Boardman Avenue/Main Street	Westbound	0.06	6.0	В	А
Front Street/North Main Street	Westbound	0.06	7.2	В	А
I-84 Westbound Ramp/Main Street	Westbound	0.23	8.4	В	А
I-84 Eastbound Ramp/Main Street	Eastbound	0.05	8.7	В	А
Front Street/South Main Street	Eastbound	0.07	7.5	В	А
Wilson Road/South Main Street	Southbound	0.24	4.8	А	А
Olson Road/Columbia Avenue	Southbound	0.01	3.6	А	А
Laurel Lane/Columbia Avenue	Westbound Left	0.03	4.3	А	А

TABLE 1 1998 EXISTING PM PEAK HOUR LEVEL OF SERVICE, UNSIGNALIZED INTERSECTIONS

Legend: LOS = Level of Service, V/C = Volume/Capacity Ratio

As Table 1 indicates, all of the unsignalized study area intersections operate at acceptable levels of service under existing weekday p.m. peak hour conditions.

TRAFFIC SAFETY

Another important aspect of the transportation system is safety. The safety analysis described in the following section focuses on the accident history for the study intersections within the City of Boardman urban growth boundary.

Intersection Accident Analysis

The accident history of the study intersections was examined for potential and existing safety problems. ODOT accident data for the period January 1993 through June 1998 were used for this analysis. In addition, the ODOT District 12's 1996-1998 Safety Priority Index System (SPIS) lists were reviewed. The SPIS lists identify locations with relatively high accident rates and locations that have been the site of one or more fatal accidents.

Review of the three respective annual SPIS lists indicates that no SPIS sites are located within the City of Boardman. Table 2 presents accident rates for the individual study intersections. Accident

rates for intersections are calculated by relating the total entering volume of traffic at the intersection, on an average daily basis, to the number of reported accidents for a given period of time. The accident rate for intersections is expressed as the number of accidents per million entering vehicles (acc/mev).

Intersection	Number of Accidents	Accidents/MEV
Marine Drive/Main Street	0	0
Columbia Avenue/Main Street	0.20	1
Boardman Avenue/Main Street	0	0
Front Street/North Main Street	0.20	2
I-84 Westbound Ramp/Main Street	0.17	2
I-84 Eastbound Ramp/Main Street	0.09	1
Front Street/South Main Street	0.20	2
Wilson Road/South Main Street	1.06	9
Olson Road/Columbia Avenue	0.54	1
Laurel Lane/Columbia Avenue	0.0	0

TABLE 2 STUDY INTERSECTION ACCIDENT RATES

*ODOT Accident data search period of 1993 – 1998

As shown in Table 2, the Wilson Road/South Main Street intersection was the only study intersection that had more than two reported accidents over the 5.5-year analysis period. The Wilson Road/South Main Street, which had an accident rate of 1.06 accidents/mev, was the site of nine reported accidents over the 5.5-year analysis period, including one fatal accident. The majority of the accidents were attributed to traffic on South Main Street not yielding the right-of-way to vehicles on Wilson Road (the Main Street approaches are stop-controlled; drivers on Wilson Road do not have to stop at the intersection). Four of the nine accidents occurred during inclement weather, two during icy conditions and two during wet weather. All but one of the accidents occurred during daylight conditions and one of the accidents resulted in a westbound vehicle that had been travelling on Wilson Road being overturned. The single fatal accident (which did not involve the overturned vehicle) was attributed to drunken driving and excessive speed.

The remainder of the accident data did not reveal any specific safety problems or discernable patterns amongst the accident type, suggesting that the intersections are not exhibiting geometric or safety deficiencies that are leading to accidents. The accidents at the Front Street/North Main Street intersection, Interstate 84 Eastbound Ramp/Main Street, and the Olson Road/Columbia Avenue intersection were attributed to adverse environmental conditions such as ice or snow. Of the two accidents at the Interstate 84 Westbound Ramp/Main Street intersection, one was attributed to adverse weather and the second was a rear-end accident resulting from a driver following another car too closely. The single accident at the North Main Street/Columbia Avenue intersection was attributed to adverse.

OTHER IDENTIFIED EXISTING TRANSPORTATION DEFICIENCIES

As an extension of the existing conditions analysis, different aspects of the transportation system with existing deficiencies were identified. A description of the deficiencies and potential improvements follows. The summary is based on field data/observations and information/suggestions that were made by members of the respective transportation agencies and the general public.

Wilson Road/Main Street Intersection

The accident data analysis indicated that there is an existing safety deficiency at the Wilson Road/Main Street intersection. Community comments also indicated concerns with the safety of the Wilson Road/Main Street intersection. The location of the intersection between residential housing and the elementary school was noted to generate pedestrian demand (along the multi-use path) across Main Street. Community comments indicated a desire to ensure the safety of school children and other persons walking through the intersection. In addition, it was noted that a fire station is located west of the intersection on Wilson Road. Hence, it was the community's desire that any form of mitigation at the Wilson Road/Main Street intersection consider both the safety of pedestrians and the ability to allow for unimpeded emergency response from the fire station.

Field inspection of the Wilson Road/Main Street intersection revealed a vertical curve on Wilson Road east of the intersection that limits sight distance. Further, the curb radius of the intersection allows for high speed turns from Wilson Road westbound onto Main Street that affects the safety of pedestrians crossing the intersection.

North Main Street

Members of the Boardman community raised several concerns regarding the cross-section and function of Main Street, particularly north of Interstate 84. These issues reflect both vehicular and pedestrian/bicycle access concerns and are summarized below.

- The current lack of separate pedestrian or bicycle facilities along Main Street north of Interstate 84 raises safety concerns amongst community members. Several agency staff members and citizens noted that, although there is a striped multi-use path along the western edge of North Main Street, no physical barrier separates the path from travel lanes. Instead, vehicles routinely cross the striped path to access businesses along North Main Street. Similarly, there are no sidewalks on Main Street south of Interstate 84 until the multi-use path begins (refer to Figure 4), thus forcing pedestrians onto roadway shoulders and parking lots along the commercial business frontage located south of the interstate.
- The lack of access management along North Main Street in conjunction with growing traffic volumes on the roadway impact community mobility, making access to Main Street from side streets increasingly difficult.
- There is a perception among local residents that drivers' speeds along the Main Street are too fast.
- The parking of large trucks along the shoulders of Main Street (and to a lesser extent, cars) near the Interstate 84 interchange was noted to obstruct visibility for drivers at adjacent intersections.

North Main Street Bridge

The existing North Main Street bridge over the Union Pacific Railroad right-of-way is a narrow twolane structure. There are no sidewalk or bicycle facilities on the existing structure, though pedestrians and bicyclists routinely use the bridge to access recreational activities along the Columbia River shore. The city has recently received federal funding to add sidewalks and bicycle lanes to the existing bridge structure.

System Connectivity

During the TAC meeting process, it was noted that Interstate 84 and the Union Pacific Railroad both serve as barriers to north-south travel. Accordingly, there is a continuing need to provide strategic north-south multi-modal connections across both the interstate and the railroad line. Similarly, there is

a need to ensure that the city provides adequate east-west facilities parallel to Interstate 84 such that the community does not become entirely dependent on interstate access to facilitate local trips. In addition, with the large amount of residential development occurring on the south side of the city, there is a need to review the layout of the city's roads to ensure that reasonable connectivity is preserved.

SUMMARY

Through an inventory of existing conditions, several key findings were identified. Those findings are summarized below.

- The City of Boardman was redefined through a master planning effort undertaken prior to relocation of the city in conjunction with dam construction along the Columbia River.
- The city is located at the crossroads of the Columbia River, Interstate 84, and the Union Pacific Railroad, thereby offering many modal opportunities.
- The city is limited in north-south growth and connectivity due to local topographical constraints such as Interstate 84, the Union Pacific Railroad right-of-way, and the Columbia River. While these facilities will continue to present constraints to both growth and transportation connectivity, they are essential components of the city's livelihood.
- Sidewalk facilities are concentrated in residential areas throughout the city. Two multi-use paths, one along Main Street, and one along Wilson Road, serve as backbones linking the north and south sides of the city. Many other local roads tend to exhibit disjointed or nonexistent sidewalks.
- Public transit service is available in the form of a senior bus and dial-a-ride service provided through Morrow County. Greyhound bus service is also available.
- The city has convenient access to both rail and marine shipping alternatives available though the Port of Morrow. Within the Port, a large container terminal and other docking facilities are available that support transfer of wood chips, aggregates, and grain.
- On a typical weekday afternoon, the transportation system experiences its peak roadway traffic demand between 4:00 and 5:00 p.m. During this peak period, the transportation system operates well within established standards.
- The Wilson Road/South Main Street intersection had nine reported accidents during the period of January 1993 through June 1998. The history of accidents at this intersection suggests that mitigation measures should be considered. Potential mitigation measures should address both pedestrian accessibility and ease of access for emergency vehicles responding from the fire station located on Wilson Road.
- Review of historical ODOT accident data did not reveal safety deficiencies at any of the remaining study intersections.
- The city has recently obtained funding to add sidewalks and bicycle lanes to the existing Main Street bridge over the Union Pacific Railroad right-of-way.