Oregon
Theodore R. Kulongoski, Governor

Department of Land Conservation and Development
635 Capitol Street, Suite 150
Salem, OR 97301-2540
(503) 373-0050
Fax (503) 378-5518
www.lcd.state.or.us

NOTICE OF ADOPTED AMENDMENT

11/2/2009

TO: Subscribers to Notice of Adopted Plan or Land Use Regulation Amendments

FROM: Plan Amendment Program Specialist

SUBJECT: City of Boardman Plan Amendment
DLCD File Number 001-09

The Department of Land Conservation and Development (DLCD) received the attached notice of adoption. Due to the size of amended material submitted, a complete copy has not been attached. A Copy of the adopted plan amendment is available for review at the DLCD office in Salem and the local government office. This amendment was submitted without a signed ordinance.

Appeal Procedures*

DLCD ACKNOWLEDGMENT or DEADLINE TO APPEAL: Monday, November 23, 2009

This amendment was submitted to DLCD for review prior to adoption with less than the required 45-day notice. Pursuant to ORS 197.830(2)(b) only persons who participated in the local government proceedings leading to adoption of the amendment are eligible to appeal this decision to the Land Use Board of Appeals (LUBA).

If you wish to appeal, you must file a notice of intent to appeal with the Land Use Board of Appeals (LUBA) no later than 21 days from the date the decision was mailed to you by the local government. If you have questions, check with the local government to determine the appeal deadline. Copies of the notice of intent to appeal must be served upon the local government and others who received written notice of the final decision from the local government. The notice of intent to appeal must be served and filed in the form and manner prescribed by LUBA, (OAR Chapter 661, Division 10). Please call LUBA at 503-373-1265, if you have questions about appeal procedures.

*NOTE: THE APPEAL DEADLINE IS BASED UPON THE DATE THE DECISION WAS MAILED BY LOCAL GOVERNMENT. A DECISION MAY HAVE BEEN MAILED TO YOU ON A DIFFERENT DATE THAT IT WAS MAILED TO DLCD. AS A RESULT, YOUR APPEAL DEADLINE MAY BE EARLIER THAN THE ABOVE DATE SPECIFIED.

Cc: Barry C. Beyeler, City of Boardman
Gloria Gardiner, DLCD Urban Planning Specialist
Grant Young, DLCD Regional Representative
Matt Crall, DLCD Transportation Planner

<paa> Y

FORM 2

DLCD

Notice of Adoption

THIS FORM MUST BE MAILED TO DLCD
WITHIN 5 WORKING DAYS AFTER THE FINAL DECISION
PER ORS 197.610, OAR CHAPTER 660 - DIVISION 18

☐ In person ☐ electronic ☐ mailed

DATE STAMP

DEPT OF

OCT 26 2009

LAND CONSERVATION AND DEVELOPMENT

For DLCD Use Only

Jurisdiction: **City of Boardman**
Local file number: **01-2009**

Date of Adoption: **October 20, 2009**
Date Mailed: **October 23, 2009**

Was a Notice of Proposed Amendment (Form 1) mailed to DLCD? **Yes** Date: **July 23, 2009**

☐ Comprehensive Plan Text Amendment
☒ Comprehensive Plan Map Amendment
☒ Land Use Regulation Amendment
☒ Zoning Map Amendment
☐ New Land Use Regulation
☒ Other: **TSP Update**

Summarize the adopted amendment. Do not use technical terms. Do not write "See Attached".

PAPA 01-2009 established an Interchange Area Management Plan for the Main Street overpass of I-84 (MP 164). It also established an IAMP Overlay District and amended language to the Boardman Development Code, Comprehensive Plan, and changed the Zoning Map.

Does the Adoption differ from proposal? Yes, Please explain below:

Minor language changes from Public Hearings.

Plan Map Changed from: **Tourist Commercial**
to: **TC with IAMP Overlay District**

Zone Map Changed from: **Same**
to: **Same**

Location: **I-84 Exit #164**
Acres Involved: **160**

Specify Density: Previous: **N/A**
New: **N/A**

Applicable statewide planning goals:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
☒	☒	☐	☐	☐	☐	☐	☐	☒	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐

Was an Exception Adopted? ☐ YES ☒ NO

Did DLCD receive a Notice of Proposed Amendment...

45-days prior to first evidentiary hearing? ☒ Yes ☐ No
If no, do the statewide planning goals apply? ☐ Yes ☐ No
If no, did Emergency Circumstances require immediate adoption? ☐ Yes ☐ No

DLCD File# 001-09 (17918)[15786]

DLCD file No. _____

Please list all affected State or Federal Agencies, Local Governments or Special Districts:

Oregon Department of Transportation

Local Contact: **Barry Beyeler** Phone: **(541) 481-9252** Extension: **213**

Address: **P.O. Box 229** Fax Number: **541-481-3244**

City: **Boardman** Zip: **97818** E-mail Address: **bbeyeler@cityofboardman.com**

ADOPTION SUBMITTAL REQUIREMENTS

This form **must be mailed** to DLCD **within 5 working days after the final decision**
per ORS 197.610, OAR Chapter 660 - Division 18.

1. Send this Form and **TWO Complete Copies** (documents and maps) of the Adopted Amendment to:

   ATTENTION: PLAN AMENDMENT SPECIALIST
   DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT
   635 CAPITOL STREET NE, SUITE 150
   SALEM, OREGON 97301-2540

2. Electronic Submittals: At least **one** hard copy must be sent by mail or in person, or by emailing **larry.french@state.or.us**.

3. Please Note: Adopted materials must be sent to DLCD not later than **FIVE (5) working days** following the date of the final decision on the amendment.

4. Submittal of this Notice of Adoption must include the text of the amendment plus adopted findings and supplementary information.

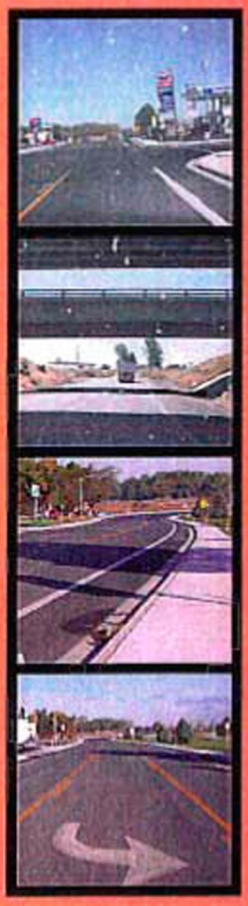
5. The deadline to appeal will not be extended if you submit this notice of adoption within five working days of the final decision. Appeals to LUBA may be filed within **twenty-one (21) days** of the date, the Notice of Adoption is sent to DLCD.

6. In addition to sending the Notice of Adoption to DLCD, you must notify persons who participated in the local hearing and requested notice of the final decision.

7. **Need More Copies?** You can now access these forms online at **http://www.lcd.state.or.us/**. Please print on **8-1/2x11 green paper only**. You may also call the DLCD Office at (503) 373-0050; or Fax your request to: (503) 378-5518; or Email your request to **larry.french@state.or.us - Attention: Plan Amendment Specialist.**

Final Report for

Boardman Main Street Interchange Area Management Plan



Prepared by

DKS Associates
TRANSPORTATION SOLUTIONS

Winterbrook Planning

April 2009

Table of Contents

List of Tables

List of Figures

Appendices

Chapter 1. Executive Summary

The Main Street interchange with Interstate 84 in the City of Boardman is a vital link for regional travel and it provides a connection between the two sides of the community. The Interchange Area Management Plan (IAMP) was initiated to develop a shared plan between the City and the State to make sure that all travelers can use the interchange safely and efficiently as the city continues to grow. The elements of the IAMP lay out the tools needed to make this happen. The City portion of the plan includes specific circulation plans and roadway standards to guide development review and approval and the ODOT portion of the plan includes a list of improvement projects to be done at the interchange. No changes to the current circulation patterns or street conditions will be done until traffic growth reaches specific thresholds identified in the plan.

Goals and Objectives

The main goal of the IAMP is to provide for safe and efficient travel around the interchange. The IAMP report describes the overall study process, identifies expected safety and traffic congestion issues associated with growth, and lays out the responsibilities for the City and ODOT to maintain good traffic operations, while providing for the needs of the property owners who rely on the interchange for local access.

The IAMP objectives include:

- A thorough analysis of the issues for the interchange.
- Identification of the opportunities to improve access and circulation for all modes of transportation.
- Utilization of public involvement and technical methods to develop and refine improvement options.
- Prioritization of improvement projects.

The IAMP was developed in partnership with affected property owners in the interchange area, the City of Boardman, the Oregon Department of Transportation (ODOT), and other stakeholders, including interchange users. The public-at-large and any interested local business operations within the study area were notified of public meetings related to this project, and they were provided opportunities to participate outside of the formal project committee process.

Relevant Plans and Standards

Any roadway improvements on or near state facilities must comply with statewide standards and plans to be funded for construction. Projects that fall short of these standards typically are not advanced to the Statewide Transportation Improvement Program, because they represent higher safety risks and provide less carrying capacity than other standard designs.

One of the fundamental standards measures how congested traffic is during the busiest hours of the day, within the design life of the project. For most cases, new improvements are planned for at least 20 years of useful operation to maximize the investment in the facility. More congestion creates more delays, which can impact freight mobility and general traffic safety. For ODOT facilities, the standard is 85

percent of capacity at the Main Street / I-84 interchange. The city has its own standard, which allows slightly less congestion (80 percent), and it is referred to as Level of Service "C".

Access spacing is the other important standard to be considered, in terms of how it affects traffic safety and mobility. Greater distance between successive cross-streets or driveways allows more reaction time for drivers, rednces conflicts between trucks, cars, pedestrians and bicycles, and gives more vehicle stacking space for turns off of the main roadway. In general, a good access mauagement plan provides a safer and more efficient circulation system. ODOT has specific access standards near interchanges. These standards cannot always be met in communities, and they are balanced against the existing access patterns to identify available options for local access that are closer to preferred standards.

A summary of the background plan review is included in the Appendix.

Existing Land Use and Transportation Issues

Geographic Boundaries

The IAMP study area is divided into two parts: the first is the influence area, which is the land area that generally will affect travel patterns related to the interchange, and the second is the management area, which arc the land uses and circulation systems immediately adjacent to interchange. Figure 1.1 shows the study area boundaries.

For the Main Street IAMP, the influence area includes the entire city of Boardman as future development within the city will be considered in assessing the long-range needs and solutions within the interchange. The management area is more narrowly focused on the land uses that have more immediate impacts on roadway access, operations and safety of the interchange.

The management area limits generally extend one-quarter mile north and one-quarter mile sonth of I-84 along Main Street. North of I-84, most of the property is fully developed along the Main Street frontage area. In this developed portion of the city, the management area was limited to jnst one block either side of Main Street. This roadway was recently reconstructed (2005) through a Transportation Enhancement Grant, and it is not expected that any changes to existing access patterns would be made along North Main Street. There are several large parcels south of Boardman Avenue and east of Main Street that have commercial zoning and are vacant today. The management area includes those vacant lands.

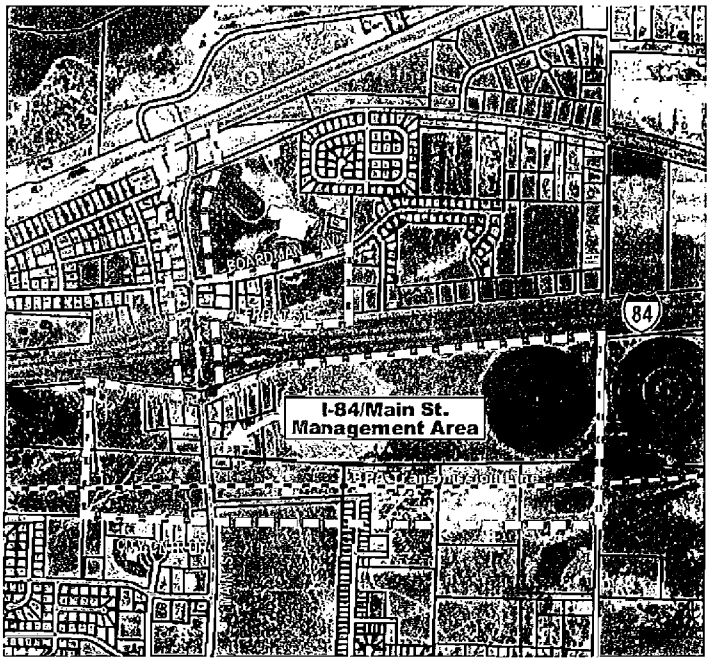


Figure 1.1: Management Area

South of I-84 there is much more opportunity for development of vacant lands or re-developmcnt of underutilized commercial land. The boundary of thc management area includes all the developable area, extending just south of Oregon Trail Boulevard.

Local Access and Circulation

A total of 28 approaches to Main Street were identified within the management area (see Figure 3.4). Eleven of those are on South Main Street, from Front Street to just past Oregon Trail Boulevard. According to a strict interpretation of the standard, 4 would be allowed on South Main Street within the management area. It is not expected that full compliance can be achieved, given the built environment and prevailing development pattern, which limits alternative circulation options for these properties. Changes to access will only be initiated if the property develops (or re-develops) and there is a reasonable alternate access available. Refer to Figure 3.4 for more details.

A key element of the IAMP is to the long-range preservation of operational efficiency and safety of the interchange is the management of access to Main Street. Because access points introduce a number of potential vehicular conflicts on a roadway and are frequently the causes of slowing or stopping vehicles, they can significantly degrade the flow of traffic and reduce the efficiency of the transportation system. However, reducing the overall number of access points and providing greater separation between them can minimize the impacts of these conflicts.

An access management plan should be implemented to help work towards better compliance for accesses onto Main Street and to provide a basis for decision-making during the development review. Implementation of the access management plan is intended to occur over a long period of time because some affected properties maintain infrastructure (e.g. buildings and internal roadways) that was established based on prior approvals of access locations to the subject roadways and some elements of the plan depend on the presence of new public streets that can not be constructed until funds are made available. Therefore, the improvements in this plan have been prioritized and categorized into short-range, medium-range, and long-range actions, and a set of performance measures have been identified as 'triggers' for implementing changes to existing circulation and access patterns.

Refer to Chapter 4, for more details about the constraints, issues and challenges in addressing each of these areas. Other issues identified through the IAMP included proper roadway design guidelines for truck traffic, enhancement of non-motorized vehicle connections, and notations about existing right-of-way constraints.

Existing Safety and Operations

Reported vehicle crashes over the last five years showed no locations with significant trends relating to accident location or type. The two most prevalent types of reported crashes were angle crashes and rear end crashes. The crash rate at all of the intersections examined did not exceed 0.26 crashes per million entering vehicles. It does not appear that the roadways within the study area are experiencing an above average rate of crashes, and no countermeasures for crash reduction are needed.

Traffic data for 2006 were evaluated to determine how well the existing road intersections and segments perform compared to state and local standards. All of the state and city intersections within the study area operate within the acceptable performance range. The highest traffic volumes and longest delays were observed at the Main Street interchange. Refer to Table 3.2 for more details.

Future Forecasts and Needs Analysis

City growth projections for 2026 were based on the current land use zoning (from the existing Comprehensive Plan), expected residential construction rates, and input from the city staff and short-term developments. By 2026, the city population is estimated to grow by at least 1,800 persons, to just over 5,000 population. Non-residential growth in the retail and industrial sectors was assumed to be significantly higher than recent construction trends, to develop a conservatively high estimate for planning purposes. The change in auto and truck traffic associated with the forecasted growth was

determined to be nearly 11,700 additional daily trips throughout the city. The future traffic volumes on all study area roadways were identified.

Traffic volumes at the Main Street interchange are expected to more than double the level observed today. The peak hour traffic volumes will grow from about 600 vehicles per hour to about 1,300 vehicles per hour by 2026. This is a very substantial change. North of I-84, where the city is largely developed, the growth is much lower, about 50% above today's volumes. The expected volumes and percent change over current conditions is summarized in Table 1.1 below.

Table 1.1: Traffic Volume Growth at Main Street Interchanges (PM Peak Hour Two-Way Total)

Location	2006	2026	Percent Growth
Main Street north of I-84	635	975	54%
Main Street south of I-84	640	1395	118%

By 2026, one intersection is expected to exceed the performance standards during peak hours:

- Main Street at I-84 Westbound Ramp

Side street approaches at four other Main Street intersections showed heavy delays during peak hours at:

- Main Street at Boardman Avenue;
- Main Street at Front Street (North);
- Main Street at I-84 Eastbound Ramps;
- Main Street at Front Street (South).

A series of different solutions were evaluated, and discussed by staff and stakeholders. The final solution was incorporated into the IAMP, and other alternatives that were set aside for various reasons are summarized in the appendix to this report.

Development that is not consistent with the current zoning (and generates over 10% more PM peak hour traffic than the current zoning) will need to complete a traffic study and amend this IAMP.

Interchange Area Management Plan

The full IAMP plan is presented in Chapter 5 of this report. A summary follows.

Local Connectivity Plan

Incremental improvements can be made to the local street connections near the freeway, as additional land is developed, with the long-term goal of improved street connectivity, improved bicycle/pedestrian network and limited direct access to Main Street.

The future deficiencies analysis in Chapter 4 highlighted several areas where local connectivity was in need of improvement, including:

- Improving east-west connectivity;
- Improving north-south connectivity;
- Filling gaps in pedestrian and bicycle system;
- Providing access to lands surrounding the Main Street interchanges; and
- Reducing access points to Main Street to the north and south of the interchange.

In response to these needs, a local connectivity plan and access management plan were developed that builds on existing and planned streets in IAMP area. These plans not only improve overall connectivity throughout the City, but also provide the ability to consolidate approaches to Main Street, while maintaining accessibility to individual properties in the corridors. Refer to Figure 1.2 and Figure 5.1 for details.

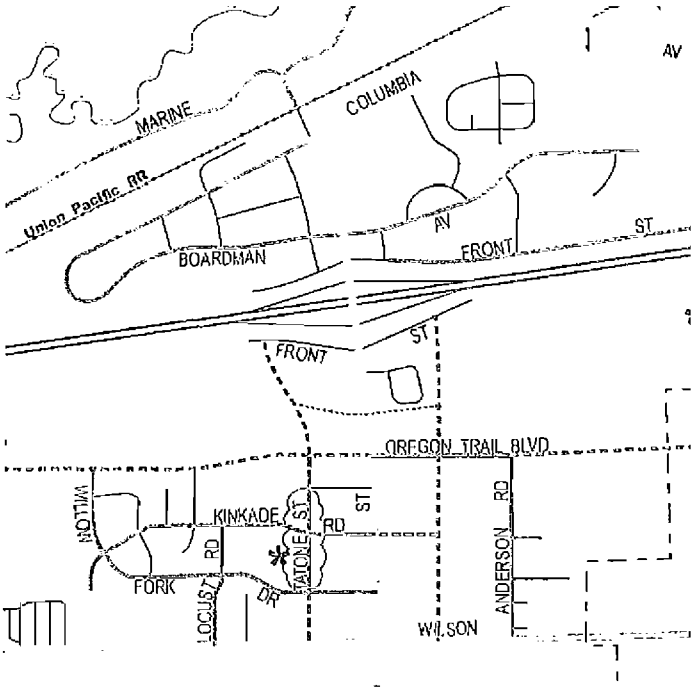


Figure 1.2: Main Street Area Plan

Access Management Plan

A key element of the IAMP related to the long-range preservation of operational efficiency and safety of the interchange is the management of access to the interchange crossroads. Because access points introduce a number of potential vehicular conflicts on a roadway and are frequently the causes of slowing or stopping vehicles, they can significantly degrade the flow of traffic and reduce the efficiency of the transportation system. However, reducing the overall number of access points and providing greater separation between them can minimize the impacts of these conflicts.

Implementation of the access management plan is intended to occur over a long period of time because some affected properties maintain infrastructure (e.g. buildings and internal roadways) that was established based on prior approvals of access locations to the subject roadways and some elements of the plan depend on the presence of new public streets that cannot be constructed until funds are made available. Therefore, the improvements in this plan have been prioritized and categorized into short-range, medium-range, and long-range actions, where the short-range actions are to be executed at this time and the medium and long-range actions are to be executed as needed funds become available or as opportunities arise during property redevelopment.

The goals of this access management plan are listed below:

1. Restrict all access from abutting properties to the interchange and interchange ramps.
2. Improve access spacing and safety factors within the interchange
3. In attempting to meet access management spacing standards, exceptions may be allowed to take advantage of existing property boundaries and existing or planned public streets, and to accommodate environmental constraints (i.e. BPA Easement).
4. Replace private approaches with public streets, where feasible, to provide consolidated access to multiple properties.
5. Ensure all properties impacted by the project are provided reasonable access to the transportation system.
6. Develop cross access easement agreements as properties (re)develop.
7. Align approaches on opposite sides of roadways where feasible to reduce turning conflicts.

8. Short-range actions shall accommodate existing development needs.

Using the goals, an action plan for each approach to Main Street was developed, as shown in Table 5.1 and Figure 5.2 in Chapter 5.

Interchange Improvements

The preferred Main Street Interchange improvements expand the existing diamond interchange. The project phasing would follow these steps:

- The freeway off-ramps would be widened to provide for separate turning lanes on the approaches to Main Street,
- Traffic signals would be installed at the off-ramp intersections with Main Street once traffic volumes grew enough to meet ODOT standards for traffic signal controls,
- The Main Street overpass would be expanded to accommodate a center left turn lane, bike lanes and wider sidewalks.

Improvement Cost Estimates

The improvement alternatives have been prioritized into short, medium, and long-range actions, as shown in Table 1.2, to provide guidance for future implementation and funding. The timing for implementing these actions assumes average growth over the next 20 years.

It should be recognized that the prioritization of projects is not intended to imply that short range projects must be implemented before the long range projects. Should opportunities arise, through private land development or other means, to construct specific projects earlier than the estimated time frame provided by this list, those resources should be utilized.

Planning-level cost estimates for all improvement alternatives were calculated to aid in the identification of needed funding. Cost estimates, shown in Table 1.2, included the fundamental elements of roadway construction projects, such as the roadway structure, bridge structures, curb and sidewalk, earthwork, retaining walls, pavement removal, and traffic signals. Right of Way costs are not included in the cost estimates. All costs are in 2007 dollars and do not reflect the added cost of inflation.

One way to provide funding for future projects (i.e. local street network and South Main Street), is for the City to establish a System Development Charge (SDC) or Local Improvement District (LID) program. These types of programs are set up to collect funds from developments and/or land owners and are based on the amount of traffic generated.

Table 1.2: IAMP Improvements

Short-Range Improvements (0 to 5 years)	Triggers	Estimated Cost	Potential Funding Source
◦ No specific short-range actions identified. Mid-range actions triggered earlier than 5 years.	- Increase in crashes - Property (re)development	NA	◦ City ◦ Property owners
Medium-Range Improvements (5 to 10 years)			
◦ Reconstruct South Main Street.	- Money becomes available - Property (re)development	$3 Million	◦ ODOT ◦ City
◦ Medium-range actions from access management plan.	- Increase in crashes	NA	◦ City

Short-Range Improvements (0 to 5 years)	Triggers	Estimated Cost	Potential Funding Source
	- Recurring public complaint - Property (re)development		◦ Property owners
◦ Construct additional approach lane on I-84 ramp terminals	- Increase in crashes - LOS drops below standards - Turn lanes warranted	$150,000	◦ FHWA ◦ ODOT ◦ City
Long-Range Improvements (10 to 20 years)			
◦ Construct new public streets according to adopted Local Connectivity Plan.	- Property (re)development	$10 to 12 million	◦ City ◦ Property owners
◦ Install traffic signal at Main Street & I-84 Westbound Ramp	- Traffic signal warrants met	$300,000	◦ ODOT ◦ City
◦ Reconstruct Main Street Bridge over I-84 - including wider sidewalk, bike lanes and turn lanes.	- Turn lanes warranted - Money becomes available - ODOT Bridge program - structural deficiency - Increase in bike/ped crashes	$10 to 15 million	◦ FHWA ◦ ODOT ◦ City
◦ Long-range actions from access management plan.	- Increase in crashes - Recurring public complaints - Property (re)development	NA	◦ City ◦ Property Owners
Note: Medium and long-range improvements could be constructed sooner than anticipated as opportunities arise through private property development or other means.			

Table 1.3 shows the general size of development that is projected to happen in the next 20 years, assuming a constant growth rate. The magnitude of development (and associated trips) shown in the table is meant to serve as a guide as to when the short, medium and long range improvements may be needed. If growth rates are substantially faster or slower than anticipated, the implementation of the actions should be reevaluated, as appropriate.

Table 1.3: Basis for Project Priorities

Description of Land Development within South Main Street Corridor	Short Range 0 to 5 Years	Medium Range 5 to 10 Years	Long Range 10 to 20 Years	Total
Residential Units	85	85	170	340 residential units
Non-Residential Gross Building Area in Square Feet	65,000	65,000	130,000	260,000 square feet gross building area
Peak Hour trips net new peak hour trips above 2006 traffic counts	250	250	500	1000 new peak hour trip ends

Chapter 2. Plan Goals, Objectives, and Evaluation Criteria

This chapter describes and presents the goals and objectives for the plan, as well as evaluation criteria to measure the effectiveness of strategies. A policy framework was identified based on reviews and summary of the applicable state and local plans, policies, regulations, and design standards (see Appendix for details). This policy framework was used to develop the project goals, objectives and evaluation criteria that are presented in the following sections.

Goals & Objectives

Project Goal

The primary goal of this project is to develop an IAMP for the interchange of I-84 at Main Street (Exit 164), to keep it operating safely and efficiently as the community grows. The IAMP describes the overall study process, identifies potential safety and traffic congestion issues and alternative solutions, and lays out the implementation steps.

The IAMP will be developed in partnership with affected property owners in the interchange area, the City of Boardman and the Oregon Department of Transportation (ODOT), and other stakeholders, including interchange users.

Objectives and Evaluation Criteria

The Project Goals have been met if the following objectives are achieved. A bulleted list of evaluation criteria follows each objective.

1. The IAMP shall include a thorough analysis of the issues for the interchange.
    - Identify and address existing and foreseeable issues related to land use, mobility, accessibility, and safety within the analysis area of the planned interchange.
    - Meet the minimum level of service / mobility standards and other requirements identified in state transportation plans, such as the Oregon Transportation Plan, 1999 Oregon Highway Plan (OHP), and Oregon Freight Plan.
    - Include an inventory map summarizing the existing conditions within the Interchange Study Area.
2. The IAMP shall identify and assess the needs and opportunities to improve access and circulation for all modes of transportation.
    - Describe the roadway network, right-of-way, access control and land parcels in the Interchange Study Area. It also evaluates local street access, circulation, connectivity, and the potential effect of local land use designations on the interchange.
    - Identify development patterns which reduce the reliance on the interchanges while increasing efficiency of the use of land within the urban growth boundary.

- Implement the OHP's Policy 3C criteria, which requires the planning and management of grade-separated interchange areas to ensure safe and efficient operation between connecting roadways.
- Include policies and implementing measures that preserve the functionality of the interchange areas.

3. The preparation of the IAMP shall utilize public involvement and technical methods to develop and refine improvement options.
    - Involve affect property owners in the interchange area, the City of Boardman, the Oregon Department of Transportation (ODOT), and other stakeholders, including interchange users.
    - Incorporate input and guidance from the Project Management Team (PMT).
    - Reflect, to the extent possible, the input of local property owners, interchange users, and other stakeholders, as gathered through public comments.
4. The IAMP shall prioritize improvement projects.
    - Identify and prioritize the transportation improvements, land use, and access management plans needed to maintain acceptable traffic operations in the Interchange Study Area.
    - Include short, medium and long-range actions to improve and maintain roadway operations and safety in the Interchange Study Area. These actions may include local street network improvements, driveways consolidations, shared roadways, access management, traffic control devices, and / or local land use actions.
    - Include a Transportation Improvements Map showing the opportunities to improve operations and safety within the City of Boardman and specifically in the Interchange Study Area.
5. The IAMP shall be forwarded through the adoption process.
    - A draft version shall be reviewed by the Boardman planning Commission, as well as the Boardman City Council. A final draft of the IAMP shall be adopted by the City Council.
    - Identify likely funding sources and requirements for the construction of the infrastructure and facility improvements as new development is approved.
    - Identify partnerships for the cooperative management of future projects and establishes a process for coordinated review of land use decisions affecting transportation facilities.

Chapter 3. Existing Land Use and Transportation Conditions

This chapter provides an inventory and evaluation of transportation facilities within the IAMP study area, which can be used to identify areas needing improvement and can act as a baseline for assessment of future conditions. This includes identification and description of existing land uses, area streets, traffic controls, pedestrian facilities, freight routes and property access, as well as an analysis of the crash history, access management deficiencies, and intersection capacity.

Study Area Land Uses

Interstate 84 runs east and west through the City of Boardman and divides the town into roughly one third to the north and two-thirds to the south. The two roadways that cross Interstate 84 (I-84) and connect the north and south parts of town are Main Street and Laurel Avenue. The main east-west roads in Boardman are Marine Drive, Columbia Avenue and Wilson Road. Currently, the predominant employment centers are located north of I-84 and the residential is generally south of I-84, which creates the need for regular trips across the freeway.

The IAMP focuses on the land uses and circulation patterns that affect operations and safety at the Main Street interchange. The IAMP study area is divided into two parts: the first is the *influence area*, which considers the current and planned land development patterns that will affect travel patterns related to the interchange, and the second is the *management area*, which are the adjoining land uses and circulation systems within the immediate area of the interchange. The influence area includes the entire city of Boardman as future development within the City will be considered in assessing the long-range needs and solutions at the interchange. The management area is more focused on the land uses in close proximity, as defined by ODOT standards and guidelines. The selected geographic boundaries for the IAMP study area is discussed below and shown in Figure 3.1.

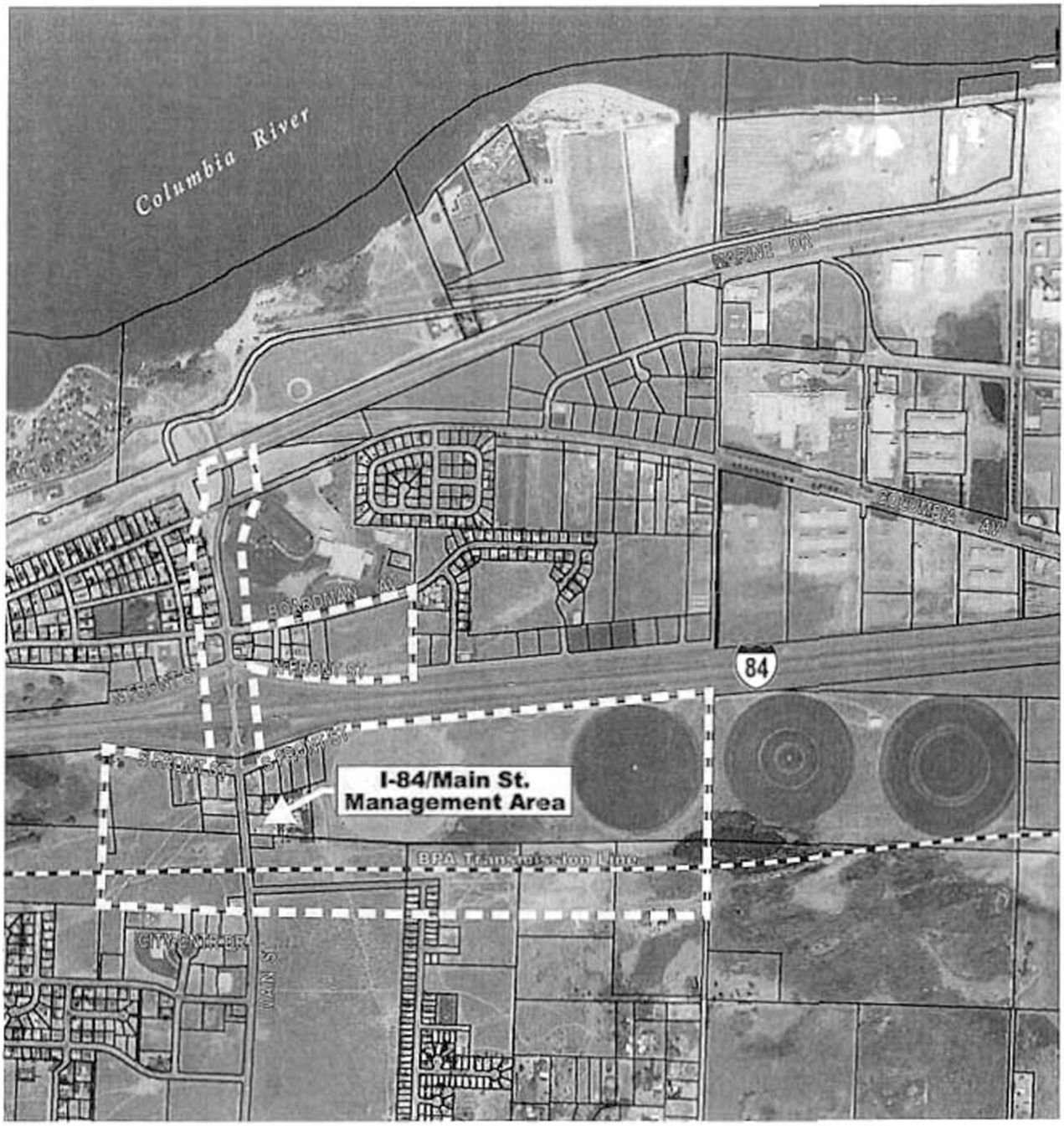
Management area limits generally extend one-quarter mile north and one-quarter mile south of I-84 along Main Street. North of I-84, most of the property is fully developed along the Main Street frontage area. In this developed portion of the city, the management area was limited to just one block either side of Main Street. This roadway was recently reconstructed (2005) through a Transportation Enhancement Grant, and it is not expected that any changes to existing access patterns would be made along North Main Street.

There are several large parcels south of Boardman Avenue and east of Main Street that have commercial zoning and are vacant today. The management area includes those vacant lands.

South of I-84 there is much more opportunity for development of vacant lands or re-development of underutilized commercial land. The boundary of the management area includes all the developable area, extending just south of Oregon Trail Boulevard.

Study Area Street Network

The roadways within the study area have designated functional classifications, which identify how they are to be used, and the appropriate standards for operations and design. These roadways are listed below in Tables 3.1. The I-84 mainline and freeway ramps are federally owned and operated by ODOT, while the rest of the roadways are owned and operated by the City of Boardman.



City of Boardman Main Street IAMP
April 2009

NO SCALE

DKS Associates
TRANSPORTATION SOLUTIONS

Figure 3.1
STUDY AREA

Table 3.1: Study Area Roadways for Main Street IAMP

ODOT Jurisdiction		
Roadway	**Limits**	**Functional Classification**
I-84	Main Street Interchange	Interstate highway on National Highway System and Freight Route
City of Boardman Jurisdiction		
Roadway	**Limits**	**Functional Classification**
Main Street	Wilson Road – Marine Drive	Arterial
Boardman Avenue	W 1st Street – E 1st Street	Minor collector
NW Front Street	W 1st Street – E 1st Street	Minor collector
SW Front Street	Entire length	Local street

With these roadways identified as the primary means of circulation through the area, key intersections along these routes were selected for capacity analysis. Through a field inventory, the existing lane configurations and traffic controls at each intersection were documented and are displayed in Figure 3.2. There are no signalized intersections within the study area. Main Street has a three lane cross-section, including a continuous left turn lane, from I-84 to Columbia Avenue. All other roadways are currently two lanes.

Operational Analysis

Traffic Volumes

Traffic data was collected at five intersections within the City on September 19, 2006.

16-hour intersection turn movement counts were collected at the two interstate ramp intersections:

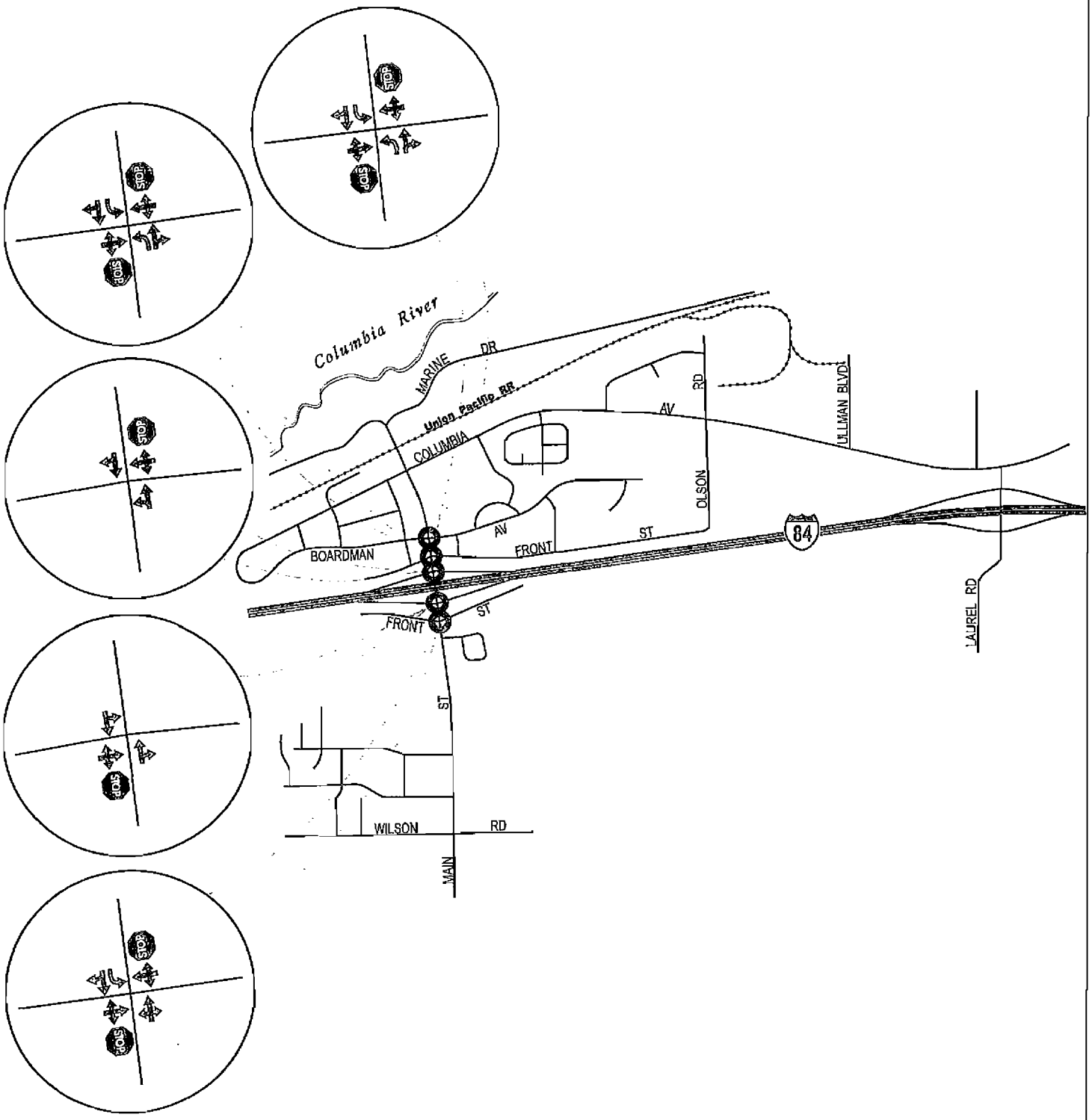
- I-84 EB Ramp at Main Street
- I-84 WB Ramp at Main Street

PM Peak Hour turning movement counts were collected at three additional intersections within the City:

- Main Street at Boardman Avenue
- Main Street at Front Street (north)
- Main Street at Front Street (south)

The PM Peak traffic counts were collected from 4:00 to 6:00 PM. Based on an evaluation of the count data, the evening peak hour for the operational analysis was determined to be from 4:05 to 5:05 PM for study intersections along Main Street.

The existing peak hour volumes were adjusted using the ODOT seasonal trend table. There are no automatic traffic recorders with similar characteristics nearby, therefore the seasonal trend method was used to develop design hour volumes. The Interstate trend was used to determine the seasonal factor. The adjusted PM Peak hour volume data is shown in Figure 3.3.



LEGEND

- Study Intersection
- Lane Configuration
- Stop Sign

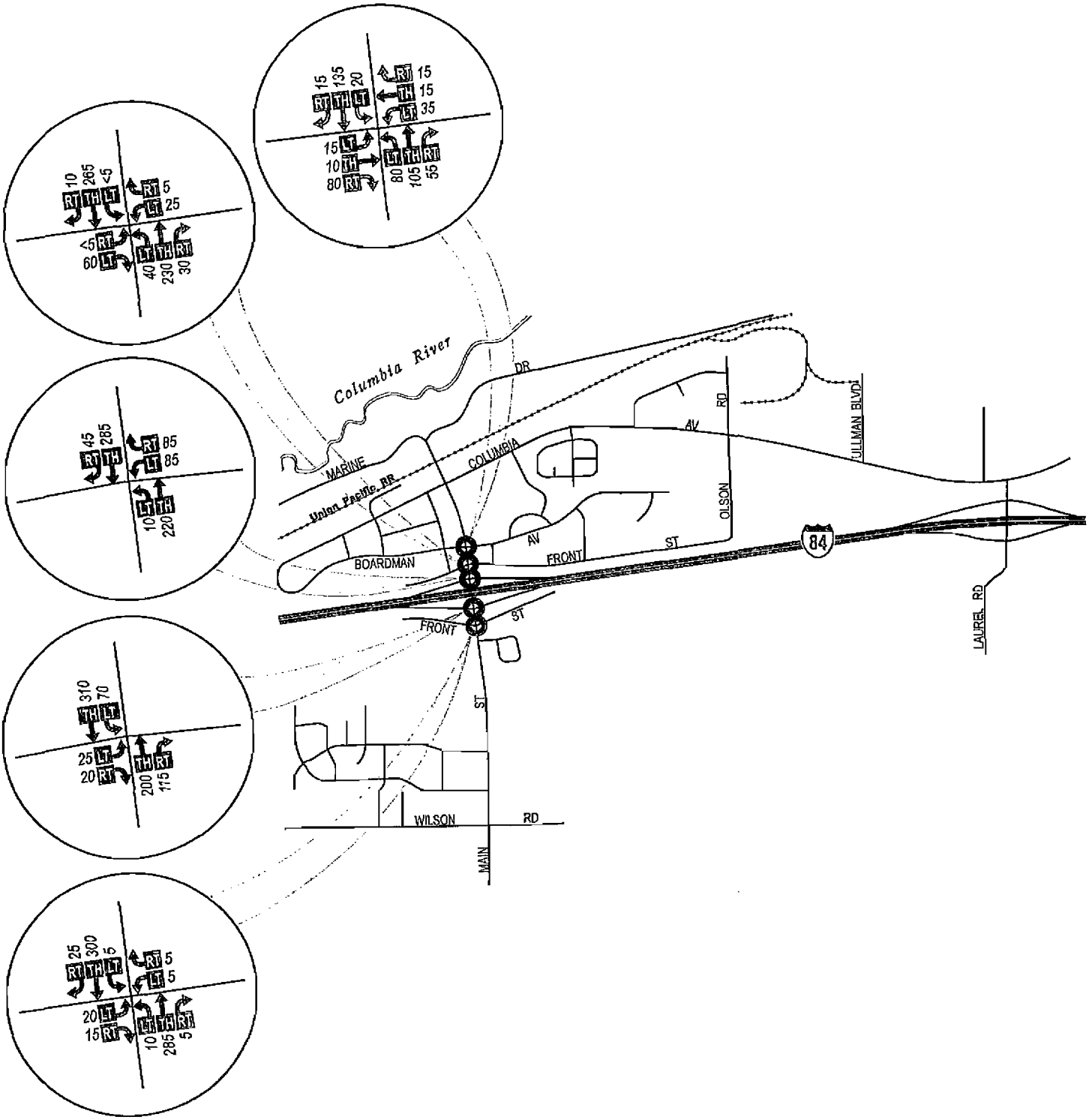
City of Boardman Main Street IAMP
April 2009

Figure 3.2

NO SCALE

DKS Associates
TRANSPORTATION SOLUTIONS

EXISTING LANE CONFIGURATIONS AND TRAFFIC CONTROL DEVICES



LEGEND

- Study Intersection
- *PM* - Peak Hour Traffic Volumes
  - *PM Peak* - 4:05-5:05 pm
- LT TH RT - Volume Turn Movement
  Left • Thru • Right

City of Boardman Main Street IAMP
January 2009

Figure 3.3

NO SCALE

DKS Associates
TRANSPORTATION SOLUTIONS

2006 EXISTING WEEKDAY PM PEAK HOURS TRAFFIC VOLUMES

Study Area Roadway Performance

Study intersections within the IAMP area were analyzed using *Highway Capacity Manual*[1] methodologies for unsignalized intersections for comparison with the applicable jurisdiction's adopted performance standards. I-84 is designated as an Interstate highway, while Main Street is classified as an arterial and is under the jurisdiction of the city of Boardman. Performance standards for the freeway interchange ramp terminals have been adopted by ODOT in the *1999 Oregon Highway Plan*[2] (*OHP*). The maximum volume to capacity (V/C) ratio of ramp terminals of interchange ramps shall be 0.85.

All non-state roadways within the study area are under the jurisdiction of the City of Boardman. The City has adopted standards for performance of City streets requiring operation of LOS "C" or better during the peak hour of the average weekday.

Level of Service (LOS) categories are similar to report card ratings for traffic performance. Intersections are typically the controlling bottlenecks of traffic flow and the ability of a roadway system to carry traffic efficiently is generally diminished in their vicinities. LOS A, B and C indicate conditions where traffic moves without significant delays over periods of peak travel demand. LOS D and E are progressively worse peak hour operating conditions and F conditions represent where demand exceeds the capacity of an intersection. Most urban communities set LOS D as the minimum acceptable level of service for peak hour operation and plan for LOS C or better for all other times of the day. The *Highway Capacity Manual* provides LOS calculation methodology for both intersections and arterials.

The traffic volume data shown in Figure 3.3 was used in the analysis. The percentage of heavy vehicles at each intersection was obtained from the traffic counts and used in the analysis. From this analysis, intersection LOS and volume to capacity ratios were obtained.

Table 3.2 shows the existing operational analysis for the unsignalized intersections within the Main Street IAMP study area. The results shown represent the critical movement at each intersection (usually a stop-controlled movement, such as a side-street left turn or crossing movement), along with the average intersection delay and LOS. As can be seen from this table, none of the intersections fail to operate within acceptable standards.

Table 3.2: Weekday PM Peak Hour Intersection Level of Service Main Street IAMP Area

Intersection	Critical Movement			Average Intersection		Performance Standard	Met ?
	Direction	LOS	Volume / Capacity	Delay (sec)	LOS		
I-84 EB Ramp / Main Street	EB	B	0.07	1.7	A	V/C < 0.85	Yes
I-84 WB Ramp / Main Street	WB	B	0.18	3.3	A	V/C < 0.85	Yes
Main Street / Boardman Avenue	WB	B	0.10	5.0	A	LOS > C	Yes
Main Street / Front Street (North)	WB	C	0.09	2.4	A	LOS > C	Yes
Main Street / Front Street (South)	EB	B	0.06	1.1	A	LOS > C	Yes

Heavy Vehicles

The percentage of heavy truck vehicles observed at local intersections was a little higher than average. For the purposes of this analysis, a heavy truck is defined as having more than 3 axles. The heavy vehicle traffic is due to the proximity of the industrial land north of I-84 to the interchange, and access to commercial services along an interstate freight route. The actual number of heavy vehicles entering the

[1] *Highway Capacity Manual*, Transportation Research Board, Washington, D.C., 2000.
[2] *1999 Oregon Highway Plan*, Oregon Department of Transportation, 1999.

intersections was not above average, but since the total number of entering vehicles at these intersections is relatively low, it is understandable why the percentage of heavy vehicles is higher than average.

Table 3.3 shows the PM Peak hour heavy vehicle percentages at the Main Street IAMP study area intersections.

Table 3.3: Weekday PM Peak Hour Volumes Within Main Street IAMP Study Area

Intersection	Total Vehicles	Heavy Vehicle	Heavy Vehicle %
I-84 EB Ramp/Main Street			
Northbound	286	16	5.6%
Southbound	351	16	4.6%
Eastbound	45	13	28.9%
I-84 WB Ramp/Main Street			
Northbound	213	14	6.6%
Southbound	299	24	8.0%
Westbound	159	24	15.1%
Main Street/Boardman Ave			
North/Southbound	379	29	7.6%
East/Westbound	162	7	4.3%
Main Street/Front Street (north)			
North/Southbound	540	36	6.6%
East/Westbound	87	15	17.2%
Main Street/Front Street (south)			
North/Southbound	579	36	6.2%
East/Westbound	38	1	2.6%

It is noted that the heavy vehicle percentages were considered in the operational analysis for each of the study area intersections. Due to the length and weight of heavy vehicles, the start up time is much slower that passenger cars. This slow start up time, in addition to the length of the vehicle can create long queues. The heavy vehicles must also wait for a larger gap in the traffic before pulling out, which can add to the delay at the intersection.

The effect of large trucks was included in the foregoing capacity analysis. It was found that all of the study intersections currently operate within acceptable standards even taking into account the high percentage of heavy vehicles.

Heavy vehicles have much larger turning radii than passenger cars and the intersection geometrics along the freight routes must take this into account.

Crash Analysis

The last five years (2001 – 2005) of available crash data for the entire City of Boardman was obtained from the ODOT Crash Analysis and Reporting Unit. The crashes within the Main Street interchange study area were analyzed and are listed in Table 3.4.

Table 3.4: Study Intersection Collision Data by Type

Intersection	Backing	Pedestrian/ Bicycle	Angle	Rear-End	Turning Movement	Fixed Object	Total		Fatality	Injury	Property Damage	Accident Rate*
I-84 EB Ramp/Main Street	-	-	-	-	-	-	-		-	-	-	0.0
I-84 WB Ramp/Main Street	-	-	1	1	1	-	3		-	-	3	0.24
Main Street/Boardman Ave	-	-	1	-	-	1	2		-	2	-	0.20
Main Street/Front Street (north)	-	1	-	-	-	1	2		-	1	1	0.17
Main Street/Front Street (south)	1	-	2	-	-	-	3		-	1	2	0.26
Main Street/Columbia Avenue	-	-	1	2	-	-	3		-	-	3	0.53
Total Collisions	**1**	**1**	**5**	**3**	**1**	**2**	**13**		**0**	**4**	**9**	

Source: ODOT – Transportation Data Section – Crash Analysis and Reporting Unit, Continuous System Crash Listing, City of Boardman, 2000-2004.

*Accident Rate is measured in Accidents per Million Vehicles Entering intersection per year.

Through an examination of individual crashes over the last five years, it was noted that there were not any significant trends relating to accident location or type. The two most prevalent types of reported crashes were angle crashes and rear end crashes.

Normally, the crash analysis is supplemented by reviewing ODOT's Safety Priority Index System (SPIS) listing for locations in the study areas ranked among the state's top 10% of hazardous locations. The SPIS is a method developed by ODOT for identifying hazardous locations on state highways. None of the intersections within the study area are identified on the ODOT SPIS list

Based on this information, it does not appear that the roadways within the study areas are experiencing an above average rate of crashes. Therefore, no countermeasures for crash reduction are needed.

Local Access and Circulation

An inventory of the existing access points along Main Street was compiled for the management area. Access to Main Street is in the form of private driveways, public easements, and public roadways.

Oregon's Access Management Rule is used to control the issuing of permits for access to state highways, state highway rights of way and other properties under the State's jurisdiction. Access within the influence area of existing or proposed state highway interchanges is regulated by standards in OAR 734-051. These standards do not retroactively apply to interchanges existing prior to adoption of the 1999 Oregon Highway Plan, except or until any redevelopment, change of use, or highway construction, reconstruction or modernization project affecting these existing interchanges occurs.

Figure 3.4 shows the location of the access points in the Main Street IAMP management study area. Main Street north of I-84 was recently reconstructed, which consolidated some access, but there are still a number of driveways and three public roadways that are within the interchange management area. Main Street south of I-84 has very little access control. There are three properties that have no clear curb cuts, which allow vehicles to access the property all along the frontage. This leads to conflicts between entering and exiting vehicles and is dangerous for pedestrians. The close spacing of North Front Street and South Front Street to the I-84 Ramp intersections creates conflict points between vehicles on the ramps and vehicles wanting to access local businesses. The BPA power line crosses South Main Street

just north of Oregon Trail. Access to the power line must be maintained for operational and maintenance purposes.

Issues to be Addressed

- Reduce number of conflict points on Main Street. The close spacing of North Front Street and South Front Street create conflict points between turning vehicles and pedestrians. Alternate access should be investigated.
- The access to the properties directly south of I-84 along Main Street needs to be demarcated and evaluated.
- Ensure the adequacy of the roadway network in terms of function, capacity, level of service and safety.
- Serve the existing, proposed and future land uses with an efficient and safe transportation network.
- Design and construct the transportation system to enhance safety and mobility for all modes.

Some of these issues can be addressed through small incremental projects prior to major reconstruction.

Pedestrians/Bicycles

To assess the adequacy of pedestrian and bicycle facilities in Boardman, an inventory of sidewalks, designated bike lanes, shoulder bikeways, identified shared roadways and off- street trails along the city streets was conducted. The location of existing activity centers such as parks, schools, City Hall and the city library were identified to determine possible pedestrian/bicycle trip generators. The high school is located north of I-84 while the elementary school, library and City Hall are all located south of I-84. The existing pedestrian network includes sidewalks along many of the local roads and a multi-use path along Wilson Road. However, there are very limited locations to cross I-84.

The City has applied for Transportation Enhancement Funding in the past to provide pedestrian and bicycle facilities on South Main Street. This section of Main Street currently has a multi-use path for pedestrians and bicycles. The previously proposed project would have provided sidewalk and bike lanes to improve the north-south connectivity for pedestrians and cyclists. The City may continue to pursue state funding in the future to help rebuild this section of roadway.

Figure 3.5 shows existing pedestrian facility inventory within the study area as well as the location of major activity centers. Sidewalk connectivity is adequate in the residential areas and near most schools. It is desirable to provide at least one continuous sidewalk connection between activity centers and arterial and collector roadways to provide safe and attractive non-motorized travel options. There are locations where sidewalk coverage could be more complete and provide greater connectivity throughout the city.

There is a multi-use path for bicycles along the north side of Wilson Road and bike lanes along North Main Street. Along the other roadways, bicyclists must share the travel lane with motor vehicles or use the shoulder if available. In many cases, this is not a desirable option for bicyclists due to narrow widths or uneven pavement conditions. Adequate bicycle facility connections should be provided to allow for safe travel between neighborhoods and activity centers.

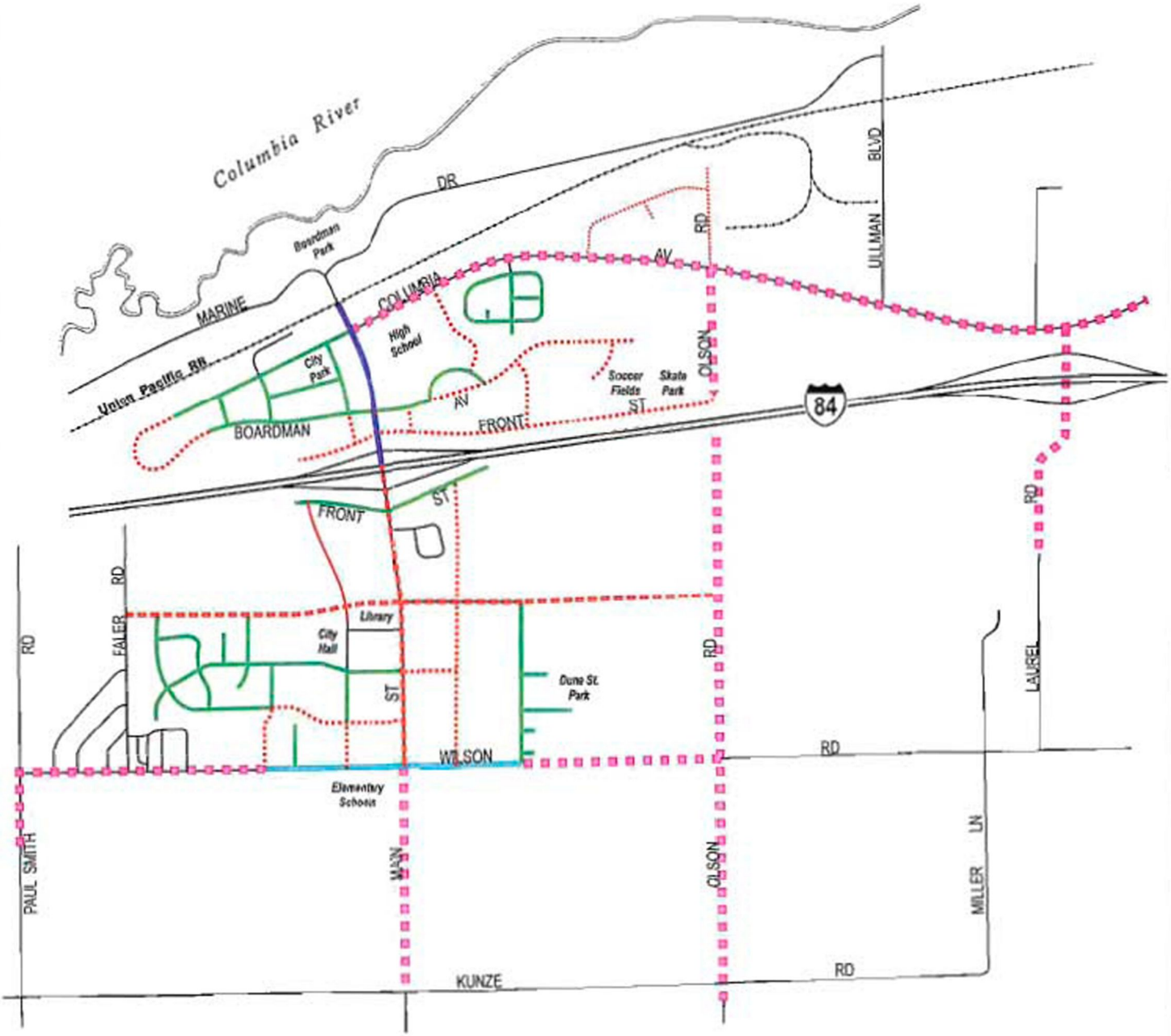
The identified pedestrian and bicycle issues are summarized below.

LEGEND
- Access Location & Number
- No Access Control
- Tax Lot ID#

DKS Associates
TRANSPORTATION SOLUTIONS

City of Boardman Main Street IAMP
April 2009

Figure 3.4
MAIN STREET IAMP
EXISTING ACCESS POINTS



LEGEND

- Existing Sidewalk
- Existing Sidewalks & Bike Lanes
- Existing Multi-Use Path
- Future Sidewalk
- Future Sidewalks & Bike Lanes
- Future Multi-Use Path

City of Boardman Main Street IAMP
April 2009

NO SCALE

DKS Associates
TRANSPORTATION SOLUTIONS

Figure 3.5

EXISTING PEDESTRIAN AND BICYCLE NETWORK

Issues to be Addressed

Deficiencies in the existing pedestrian facility network include:

- Sidewalks throughout the City should be ADA compliant and meet ODOT grant requirements.
- Continuity and quality of sidewalks on Main Street on the bridge over I-84. The narrow sidewalk width creates an uncomfortable pedestrian environment, particularly with the heavy vehicles that travel along the roadway.
- Several potential enhancements that should be considered are additional street lighting, curb extensions to reduce crossing distance and median treatments to provide pedestrians a "safe haven" at a mid-block crossing.
- There is no connection between Olson Road ou the north and south sides of I-84. Pedestrians cannot cross I-84 at this location.

Deficiencies in the existing bicycle facility network include:

- There are no bike lanes on tlic Main Street overpass. This creates a potentially unsafe environment, particularly with the heavy vehicles within the interchange area.
- There is no connection between Olson Road on the north and south sides of I-84. Bicyclists cannot cross I-84 at this location.

Freight

A large portion of the land north of I-84 in Boardman is zoned for Industrial. The freight transport serving this area consists of truck, rail and barge. These modes all converge in the Port of Morrow which is located north of I-84 near the Laurel Lane Interchange. Local truck traffic uses the Main Street interchange.

The Port of Morrow has six terminals on the Columbia River and is a large generator of freight in the area in addition to being a large employer. Other freight generators in the area include the food processing facilities located in the industrial area. Freight routes in the area include: Laurel Lane (at I-84), Columbia Avenue (aka Boardman-Irrigon Road), and Ullman Boulevard. Main Street is not a state-designated as a freight route.

Based on the traffic volumes collected, the perceutage of heavy vehicles are higher than average. The actual number of heavy vehicles entering the intersections was not above average, but since the total number of eutering vehicles at these intersections is relatively low, it is understandable why the percentage of heavy vehicles is higher than average. The volume of heavy vehicles at each study intersectiou during the peak hours are shown in Table 3.3.

Issues to be Addressed

- Any road/intersection designs within the influence area shall take into account the heavy volume of trucks.

Chapter 4. Future Travel Forecasts and Needs Analysis

This chapter provides an evaluation of how the City of Boardman may grow as vacant lands are developed, and assesses how transportation facilities will perform as that growth occurs. Future year traffic conditions were evaluated to determine where access, capacity and multi-modal improvements would be needed to best serve existing and future residents and businesses in the city. In some cases, a range of solutions is possible for a given problem.

Land Inventory and Analysis

Land use forecasting and the associated travel activity that occurs with growth is a key factor in developing a functional transportation system. The amount of land that is planned to be developed, the type of land uses and how the land uses are mixed together has a direct relationship to the expected demands on the transportation system. Understanding the amount and type of land use is critical to taking actions to maintain or enhance the operation of the transportation system. Projected land uses were developed within the City's Urban Growth Boundary for the forecast year (2026). The following sections summarize the forecasted growth that will influence travel within Boardman. A detailed description of the land use forecasting is included in the Appendix.

Population and Employment Forecasts

Based on the Morrow County Transportation System Plan[3], the population in the City of Boardman is projected to grow at a rate of 2.5% per year. The Office of Economic Analysis (OEA) determined the historical growth rate for the 2000-2025 period. The current population of the City of Boardman is 3,175. Based on the projected growth, the City of Boardman can expect a population of 5,031 in the year 2026.

Table 4.1: Boardman Population Projections

Year	City of Boardman Population
2006	3,175
2026	5,031

The 1997 Land Needs and Supply report[4] states that Boardman had ample land within the Urban Growth Boundary to meet the commercial and housing needs for the next 20 years and beyond, given the population projections for the study. Most of the future employment growth is expected to occur at the Port of Morrow, which is in the northeast corner of the city and extends beyond into unincorporated portions of the county. Additional employment growth will occur along the South Main corridor due to available lands for commercial and office development. Most of the future residential growth is expected to occur south of I-84.

[3] Morrow County 2005 Transportation System Plan, July 23, 2005
[4] Land Needs and Supply – Boardman Urban Growth Boundary, Draft Report, July 17, 1997

The following section summarizes the forecasted growth that will influence future travel within the Main Street IAMP study area. Future development was based on the current land use zoning, expected growth by the forecast year and is consistent with the City's current Comprehensive Plan. Input from the City of Boardman staff to include local expertise and knowledge of known developments was also taken into account. Future development that is not consistent with the current land use zoning (and creates more than 10% more PM peak hour traffic than the current zoning) will need to conduct a traffic study and amend this IAMP.

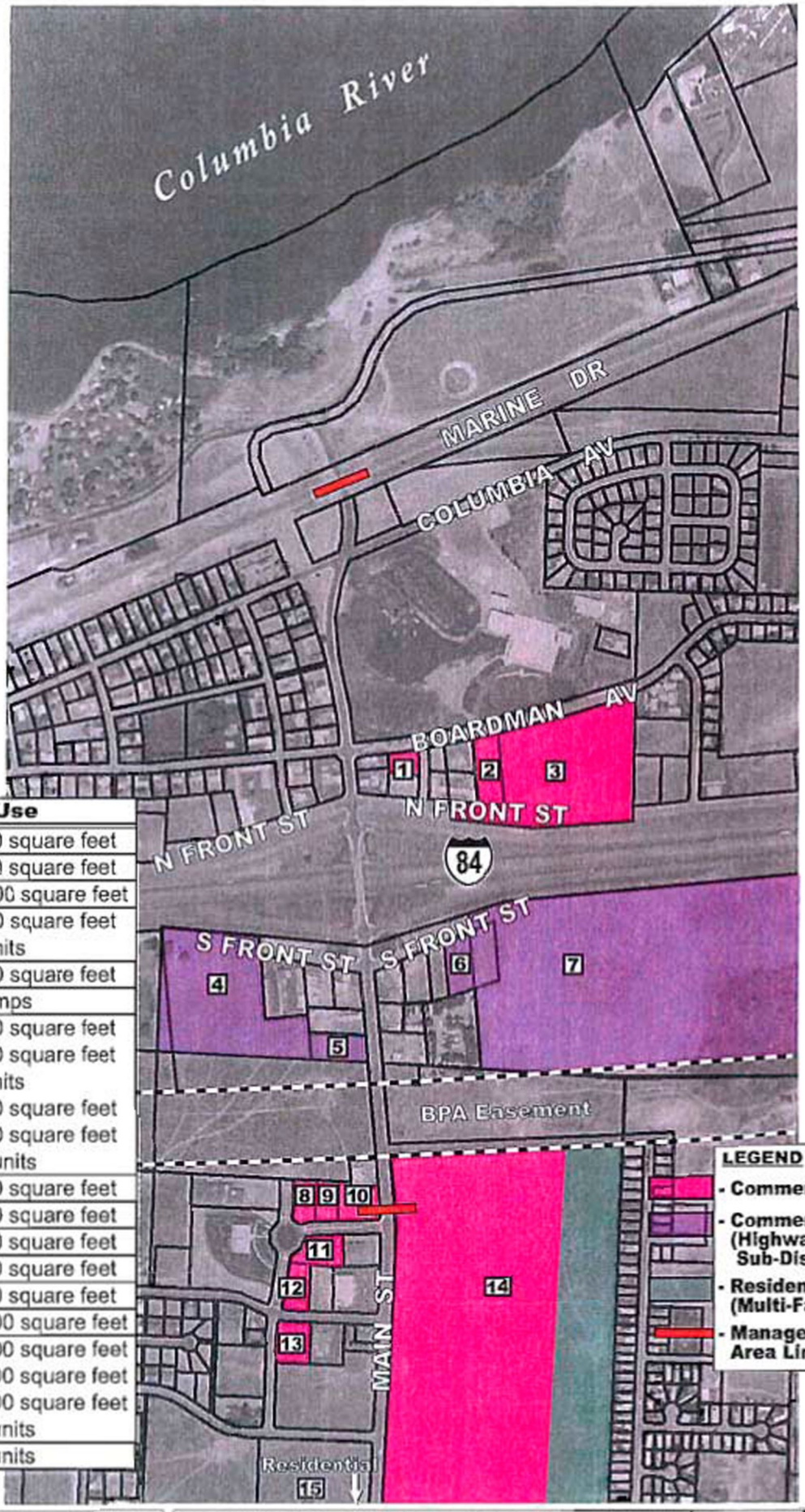
Future Year Forecasts

An analysis was performed of 2026 future travel demand, deficiencies and needs for the transportation system within the Main Street IAMP. The analysis is based upon the transportation system inventory, analysis of existing conditions and forecasts of future demand based on land use projections for 2026. The project scope specifies that a Level 2 Cumulative Analysis be used for traffic volume forecasting. The cumulative analysis was used to forecast the future volumes in the Main Street study area interchange. The cumulative traffic volumes were calculated by adding the trips generated by the assumed development to the existing traffic counts, which were collected in September, 2006 (and factored for seasonal fluctuation).

The trip generation process translates land use quantities (number of households, building square footage or employees) into vehicle trip ends (number of vehicles entering or leaving a particular development area) using established trip generation rates based on the Institute of Transportation Engineers (ITE) Trip Generation Manual[5]. Table 4.2 provides a listing of the weekday PM peak hour trip rates used in this analysis. The resulting traffic volume projections form the basis for identifying potential roadway deficiencies and for evaluating alternative circulation improvements.

The following section summarizes the forecasted growth that will influence future travel within the Main Street IAMP study area. Figures 4.1 shows the parcels that are expected to develop by the year 2026 in the Main Street IAMP study area. Future development was based on the current land use zoning, expected growth by the forecast year and is consistent with the City's current Comprehensive Plan.

[5] *Trip Generation Manual*, 7th Edition, Institute of Transportation Engineers, 2003.



Main Street

Parcel #	Assumed Land Use	
1	Convenience Store	2,000 square feet
2	Fast Food Restaurant	3,000 square feet
3	Specialty Retail	20,000 square feet
4	Restaurant	6,000 square feet
	Motel	65 units
5	Fast Food Restaurant	4,000 square feet
6	Gas Station with Mart	8 pumps
7	Fast Food Restaurant	4,000 square feet
	Restaurant	6,000 square feet
	Motel	65 units
	Car Wash	1,000 square feet
	Car Service Shop	2,000 square feet
	Housing	120 units
8	Office	5,000 square feet
9	Office	5,000 square feet
10	Bank	4,000 square feet
11	Office	5,000 square feet
12	Office	5,000 square feet
13	Medical/Dental	10,000 square feet
14	Specialty Retail	10,000 square feet
	Drug Store	20,000 square feet
	Hardware/Paint Store	10,000 square feet
	Housing	120 units
15	Housing	100 units

NO SCALE

DKS Associates
TRANSPORTATION SOLUTIONS

City of Boardman Main Street IAMP
April 2009

Figure 4.1

MAIN STREET 20-YEAR FORECASTED DEVELOPMENT

Table 4.2: PM Peak Hour Trip Generation Rates

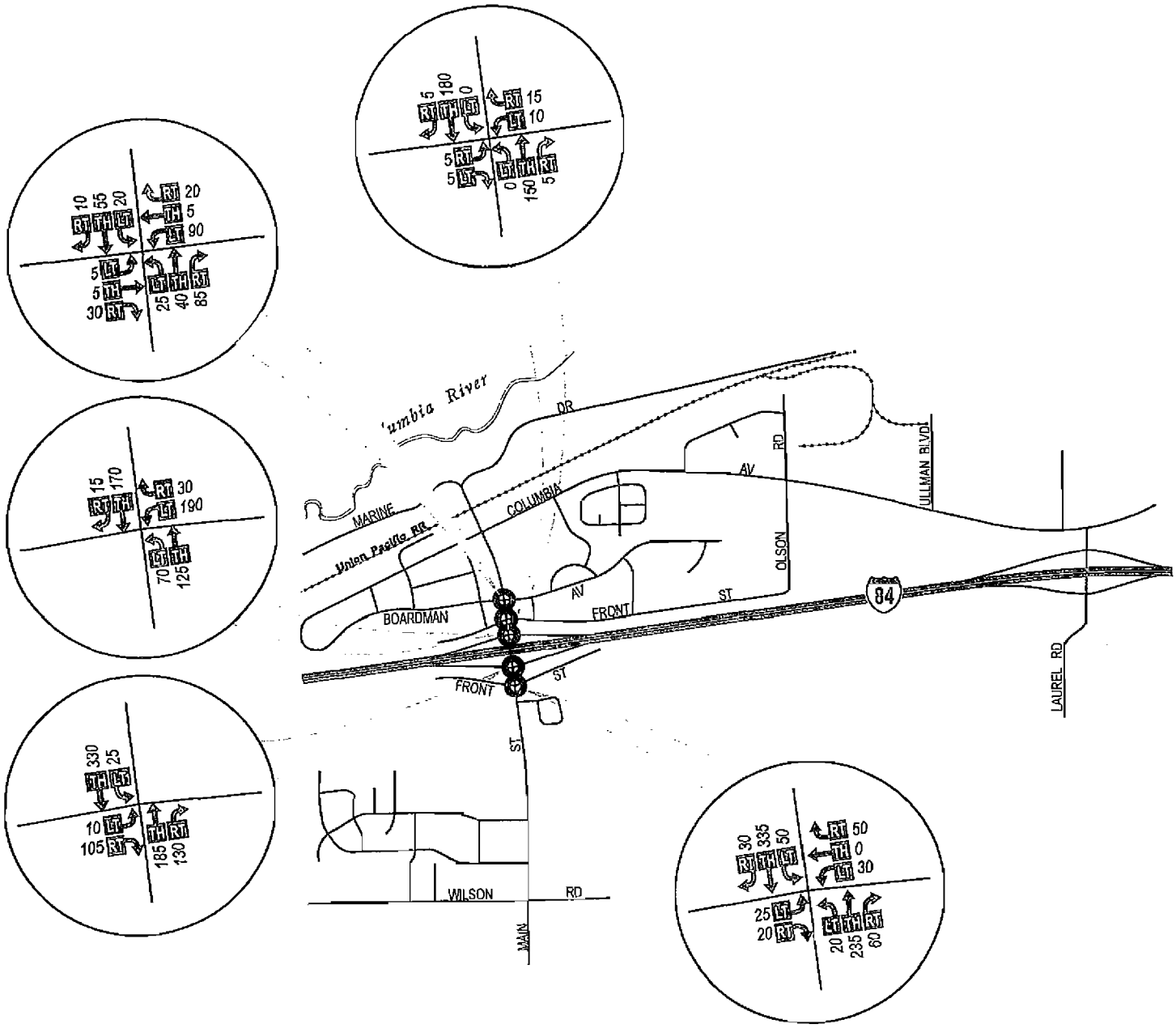
Land Use Description	ITE Code	Land Use Unit	Vehicle Trips Per Land Use Unit	Assumed Size of Land Use
Single Family Detached Housing	210	Dwelling Unit	1.01	220
Housing - Condos	230	Dwelling Unit	0.52	120
Motel	320	Room	0.58	130
Single Tenant Office	715	1,000 s.f. building area	1.73	20
Medical/Dental Office	720	1,000 s.f. building area	5.18	10
Specialty Retail (Lumber store)	812	1,000 s.f. building area	4.49	10
Free Standing Discount Store	815	1,000 s.f. building area	5.06	20
Hardware/Paint Store	816	1,000 s.f. building area	4.84	10
Convenience Mart	851	1,000 s.f. building area	52.41	2
Drug Store	881	1,000 s.f. building area	8.62	20
Bank Drive In	912	1,000 s.f. building area	45.74	4
Sit-Down High Turn Over Restaurant	932	1,000 s.f. building area	10.92	12
Fast Food with Drive In	934	1,000 s.f. building area	34.64	11
Auto Care Center	942	1,000 s.f. building area	3.38	2
Gas Station with Mart	945	Fuel Service Position	13.38	8
Self Service Car Wash	947	1,000 s.f. building area	5.54	3

Based on the assumed land uses for the 20-year forecasted development scenario, it is estimated that there will be an additional 11,700 new trips per day added to the system. During the PM peak hour, it is estimated that there will be an additional 1,100 trips generated by the future development, while an additional 1,000 new trips will be generated in the AM Peak hour. Tables A1 and A1a in the Appendix list each of the land uses and the estimated trips generated by them.

Many of the new trips generated by the future development will be shared by different land uses, so a reduction factor was applied to take this into account. Based on data in the ITE Trip Generation Manual, 5th Edition, a reduction rate of: 60% was applied to the Convenience Store land use, 43% was applied to the Fast Food land use, 35% was applied to the Retail land use and 27% was applied to the Gas Station land use.

Trips from the new development were assigned to specific travel routes in the network, and resulting trip volumes were accumulated on links of the network until all trips are assigned. The trips related to the commercial and industrial development near the interchanges were distributed toward the freeway ramps, using similar turning movement percentages as the current counts. The residential, office, and commercial development on South Main Street has more of the trips distributed locally. It is expected that as more retail and other services are built along South Main Street, that a larger share of shopping trips will be made locally, rather than traveling to nearby cities for services and goods. This dynamic will work towards reducing the use of the Main Street interchange. The projected PM peak hour traffic volumes due to the 20-year forecasted development scenario are shown in Figure 4.2. The cumulative PM Peak hour volume data for the Main Street IAMP study area is shown in Figure 4.3.

A detailed description of the land use forecasting, including key distribution assumptions is included in the Appendix.



LEGEND

- Study Intersection
- 00 - PM Peak Hour Traffic Volume
- LT TH RT - Volume Turn Movement (Left-Thru-Right)

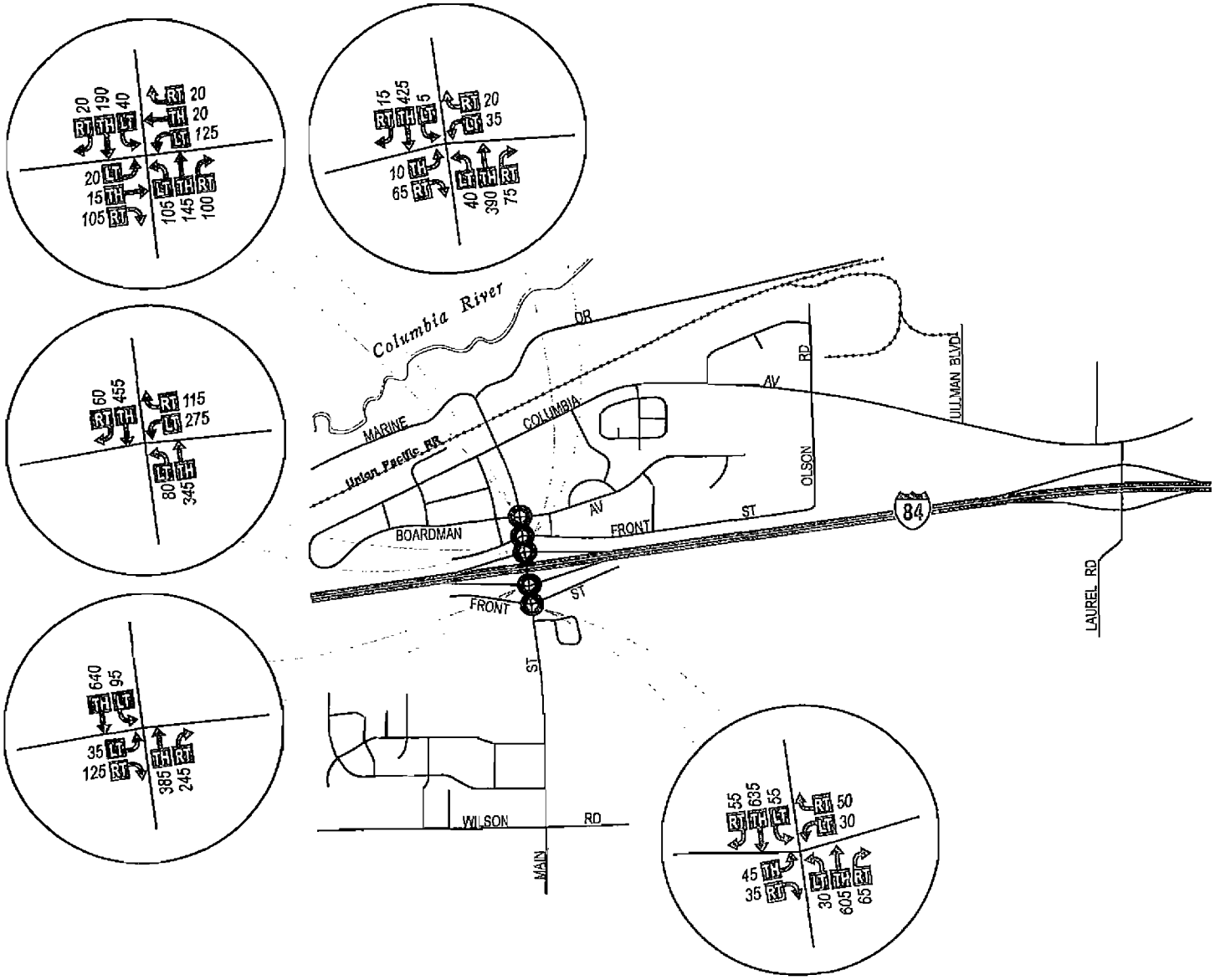
City of Boardman Main Street IAMP
April 2009

Figure 4.2

NO SCALE

DKS Associates
TRANSPORTATION SOLUTIONS

PM PEAK TRIPS GENERATED BY 20-YEAR FORECASTED DEVELOPMENT



LEGEND

- ◎ - Study Intersection
- *00* - PM Peak Hour Traffic Volume
- LT TH RT - Volume Turn Movement (Left-Thru-Right)

City of Boardman Main Street IAMP
April 2009

Figure 4.3

NO SCALE

DKS Associates
TRANSPORTATION SOLUTIONS

2026 PM PEAK HOUR TRAFFIC VOLUMES

Boardman Speedway

One future land use that was not included in the trip generation was the Boardman Speedway, since as of this writing; a decision has not been made regarding this development. The main access for the speedway is planned to be off of Tower Road, which is about five miles to the west of the Main Street interchange in Boardman. Construction of a speedway will have an impact on the way the City develops and the rate at which it does. If the speedway development were to be built, further studies would need to be prepared by others to quantify all the potential impacts (transportation, environmental, economic, etc.).

Volume Comparisons to Past Studies

The Transportation System Plan[6] documents the 20 year forecasted traffic volumes in Boardman. The TSP volumes were forecasted for the year 2020 and were developed by applying a 2.9 percent annual growth rate to existing volumes. The IAMP forecasts are based on trip generation and distribution from actual land use zoning. In order to compare plans, the 2020 TSP volumes were factored up to arrive at 2026 volumes. Table 4.3 shows the comparison between the volumes forecasted by the TSP[5] and this IAMP.

Table 4.3: PM Peak Hour Volume Comparison between TSP and IAMP (2026)

Location	Two-way PM Peak Hour Volume		Volume Difference
	TSP	IAMP	
Main Street North of I-84	1070	975	-95
Main Street on I-84 Overpass	1070	1100	30
Main Street South of I-84	1140	1400	260

The biggest difference is on Main Street south of I-84. This is reasonable, since most of the development is assumed to take place on Main Street between I-84 and Wilson Road. The TSP assumed a growth rate that is applied to all movements equally, whereas the IAMP used the actual land use type and location in the analysis.

The Main Street Development Plan[7] documents the year 2020 forecasted traffic volumes in the City of Boardman under two scenarios. The first scenario uses a 1.0 percent growth rate per year and also adds in volumes that are expected to be generated by three residential developments. The second scenario uses a 1.0 percent growth rate and adds in the residential development from Scenario 1 plus the new traffic that would be expected from the New Downtown Plan, which includes retail, office and more residential development. Table 4.4 shows the comparison between the volumes forecasted by the Downtown Plan[7] and this IAMP.

Table 4.4: PM Peak Hour Volume Comparison between Downtown Plan and IAMP

Location	Two-way PM Peak Hour Volume		Volume Difference
	Downtown Plan	IAMP	
Main Street North of I-84	1080	975	-105
Main Street on I-84 Overpass	1420	1100	-320
Main Street South of I-84	1830	1400	-430

[6] Transportation System Plan, City of Boardman, Oregon 1999
[7] City of Boardman Main Street "Downtown" Development Plan, 2000-2001

The forecasted volumes for the Downtown Plan were about 30% higher than the IAMP forecasted volumes. The Downtown Plan assumed a growth rate in addition to actual development when forecasting the volumes, whereas the IAMP used only the land use type and location in the analysis and assumed that the growth rate would be included in the trip generation rates.

South Main Street Development Alternative

One of the concurrent planning issues that affects the South Main portion of the study area is a pending rezone for approximately 30 acres at the east end of South Front Street. It is understood that the proposed rezone would change the background residential zoning to allow for more commercial uses. Based on input from the City, it was assumed that approximately half of the 30 acres would be developed as residential (120 residents) with the remaining land developed as commercial. It is estimated that the net change in traffic generation associated with the rezone would be minimal, approximately 400 trips per day or 20 trips in the peak hour. Therefore, we have included this rezone action in the assumptions for future growth, which will be conservatively high, compared to existing zoning provisions.

Future 2026 Operations

Study intersections were analyzed using *Highway Capacity Manual*[8] methodologies for unsignalized intersections for comparison with the applicable jurisdiction's adopted performance standards. Analysis of traffic volumes is useful in understanding the general nature of traffic in an area, but by itself indicates neither the ability of the street network to carry additional traffic nor the quality of service afforded by the street facilities. For this, the concept of *level of service* (LOS) has been developed to subjectively describe traffic performance. LOS can be measured at intersections and along key roadway segments.

Intersection Operations

The traffic volume data shown in Figure 4.3 was used in the analysis, using *Highway Capacity Manual*[8] methodologies for unsignalized intersections for comparison with the applicable jurisdiction's adopted performance standards.

I-84 is designated as an Interstate highway, while Main Street is classified as an arterial and is under the jurisdiction of the city of Boardman. Performance standards for the freeway interchange ramp terminals have been adopted by ODOT in the *1999 Oregon Highway Plan*[9] (*OHP*). The maximum volume to capacity (V/C) ratio of ramp terminals of interchange ramps shall be 0.85. All non-state roadways within the study area are under the jurisdiction of the City of Boardman. The City has adopted standards for performance of City streets requiring operation of LOS "C" or better during the peak hour of the average weekday.

Table 4.5 shows the cumulative (year 2026) operational analysis for the unsignalized intersections within the Main Street IAMP study area (with substandard in bold). The results shown represent the critical movement at each intersection (usually a stop-controlled movement, such as a side-street left turn or crossing movement), along with the average intersection delay and LOS.

[8] *Highway Capacity Manual*, Transportation Research Board, Washington, D.C., 2000.
[9] *1999 Oregon Highway Plan*, Oregon Department of Transportation, 1999.

Table 4.5: Cumulative (2026) Weekday PM Peak Hour Intersection Level of Service

Intersection	Critical Movement			Average Intersection		Performance Standard	Met?
	Direction	LOS	Volume / Capacity	Delay (sec)	LOS		
I-84 EB Ramp / Main Street	EB	E	0.32	4.6	A	V/C < 0.85	Yes
I-84 WB Ramp / Main Street	WB	F	**1.17**	**65.9**	**F**	**V/C < 0.85**	**No**
Main Street / Boardman Avenue	WB	F	0.66	14.0	B	LOS > C	Yes
Main Street / Front Street (North)	WB	D	0.27	3.1	A	LOS > C	Yes
Main Street / Front Street (South)	EB	F	0.77	10.5	B	LOS > C	Yes

Assuming 20 year forecasted development of the assumed land uses, the following intersection is expected to exceed the performance standard of V/C < 0.85 in the PM peak hour:

- Main Street & I-84 Westbound Ramp

There following three intersections have side street movements that will operate with LOS E or F:

- Main Street & Boardmau Avenue
- Main Street & I-84 Eastbound Ramp
- Main Street & Front Strcet (South)

The intersections will continue to operate within the City of Boardman LOS performance standards for average intersection LOS, but may have increased delay for the side street approaches.

Future 2026 Deficiencies

System deficiencies and/or safety issues that were identified from the Future Conditions Analysis are listed below:

- Main Street & I-84 Westbound Ramp is expected to exceed the City standard LOS in the PM peak hour.

The following three intersections have side street movements that will operate with LOS E or F:

- Main Street & Boardman Avenue
- Main Street & I-84 Eastbound Ramp
- Main Street & Front Street (South)

Access/Intersection Spacing

The long term goal is to reduce or minimize the number of access points along South Main Street. As vacant land is developed and street connectivity is completed, the access points should be evaluated. Reasonable alternate access must be in place before any access is removed. North Main Street was recently reconstructed, and all of the land is developed that fronts this roadway. If any of the properties redevelops, the access points onto North Main Street should be re-evaluated.

The number of access points should be reduced and/or combined on South Main Street. By reducing and combining access points, the number of conflict points is reduced, which improves the safety and operation of the roadway. This should be done as property develops and will he hased on mutually agreed upon access changes and/or the addition of alternate accass.

Left turn lanes should be provided on Main Street at the major access points to provide safe left turning access.

Pedestrian/Bicycle Network

The pedestrian network should be addressed in parallel to the street network improvements. In general, curb and sidewalk similar to North Main Street will improve the safety of pedestrians along South Main Street. Pedestrian access across Main Street is also important. Pedestrian crossings should be accommodated at the major access points (I-84 ramps, Oregon Trail Boulevard, City Center Boulevard, Kinkade Road and Wilson Road). This would include sidewalk with ADA pedestrian ramps on the corners and possibly supplemental signing and/or painted crosswalks. A "mid-block" pedestrian crossing could be accommodated on the north side of the BPA easement. The mid-block crossing could incorporate a center pedestrian refuge island, once South Main Street is reconstructed to the arterial standard. A wider sidewalk and separate bike lanes on the Main Street bridge across I-84 will provide a safer facility for the pedestrians and bicyclists.

Sensitivity Analysis

The future distribution patterns have an impact on the forecasted turning movement volumes at study area intersections. If more traffic than forecasted uses the I-84 interchange ramps to go east or west on I-84 (instead of local trips), the intersection operations at the ramp intersections will degrade before the forecast year. If ten percent more of the forecasted traffic were to go through the I-84 ramp intersections, the intersection of Main Street & I-84 Eastbound ramp would not meet the City LOS standards.

In the forecast year, the minor street volumes at the intersection of Main Street & I-84 Eastbound Ramp are expected to be approximately 90% of the volumes needed to meet the Peak Hour traffic signal warrant. If more traffic than forecasted uses this intersection or if more traffic turns left from the Eastbound ramp onto Main Street, the Peak Hour warrant will be met at this intersection.

Major Constraints

The following section identifies transportation, environmental, socio-economic, multi-modal and right of way constraints and/or issues associated with the transportation deficiencies for the Main Street IAMP area.

- The Bonneville Power Administration (BPA) has a major electrical transmission line that cuts across the city. The BPA easement is 395 feet wide and is about one quarter mile south and parallel to I-84. Any new roadways within the BPA easement would need to comply with regulations set forth by BPA.
- Interstate 84 runs east and west through the City and divides the town into roughly one third to the north and two-thirds to the south. The two roadways that cross I-84 and connect the north and south parts of town are Main Street and Laurel Avenue. Additional roadways that would connect the north and south parts of town would need to cross (over or under) I-84.
- There are identified wetland areas within the City of Boardman. Most of the wetland areas are located where new roadways are not anticipated in the future. However, there are two areas in the vicinity of future roadways and will need to be mitigated if new roadway construction impacts them. One area is approximately 30 acres and located south of I-84 and about a quarter mile west of Main Street. A second area is approximately 10 acres and is south of I-84 and about a third mile east of Main Street.
- A mobile home park is currently located on the west side of South Main Street between South Front Street and the BPA easement. A new roadway that would provide east-west connectivity and access to businesses along Front Street would have an impact on the south part of this

property. The impact may result in the relocation of some of the mobile homes or a redesign of the layout of the mobile home park.

- New roadways that strengthen north-south and east-west connectivity would provide access to businesses and homes, thus having a positive socio-economic impact.
- New roadway connections or road widening projects will require the purchase of right of way.
- There are no identified sources of funding for any of the transportation improvements.

Chapter 5. Interchange Area Management Plan

Alternatives for providing adequate operation of the interchange and the surrounding transportation system were developed and evaluated. This chapter summarizes the alternatives considered, including cost estimates, and provides prioritization for the implementation of these alternatives through short, medium, and long-range actions.

Transportation Alternatives

In Chapter 4, a future deficiencies analysis identified one study area intersection that was projected to fail to meet adopted mobility standards, which for the interchange ramp intersections is a v/c ratio of 0.85. The mobility standard for the City of Boardman intersections is a Level of Service "C".

Assuming 20 year forecasted development of the assumed land uses, the following intersection is expected to exceed the performance standard of V/C < 0.85 in the PM peak hour:

- Main Street & I-84 Westbound Ramp

The following three intersections have side street movements that will operate with LOS E or F:

- Main Street & Boardman Avenue
- Main Street & I-84 Eastbound Ramp
- Main Street & Front Street (South)

The three intersections listed above will continue to operate within the City of Boardman LOS performance standards for average intersection delay and LOS, but may have increased delay for the side street approaches.

Transportation alternatives are aimed at improving capacity and safety through measures such as traffic controls, turn lanes, enhanced street connectivity, and system management techniques.

The planned Main Street improvements are shown in the two graphics below. Most of the improvements will be developed over time as the land develops. Incremental improvements can be made as land is developed with the long-term goal of improved street connectivity, improved bicycle/pedestrian network and limited direct access to Main Street. The project phasing would follow these steps:

1) Develop the local street network east and west of Main Street.
2) Limit access at Main Street/North Front Street and Main Street/South Front Street,
3) Widen the freeway off-ramps to provide for separate turning lanes on the approaches to Main Street,
4) Install a traffic signal at Main Street and I-84 WB Ramp once traffic volumes grew enough to meet ODOT standards for traffic signal controls,
5) Reconstruct and expand the Main Street overpass to accommodate a center left turn lane, bicycle lanes and wider sidewalks.

As traffic volumes on Main Street double over current levels (by year 2026), incremental steps will be required to ensure that the existing interchange configuration performs adequately for autos and trucks, and provides safe facilities for bicycles and pedestrians. The short/mid-term solution is to limit access at the intersections of Main Street with North Front Street and South Front Street to right turn only. The ultimate improvement alternative would expand the current freeway interchange by widening the two off-

ramps and the bridge, and constructing a traffic signal at the ramp westbound terminal. Figure 5.1a shows the short/mid range improvements at the interchange and Figure 5.1b shows the long range improvements at the intersection.

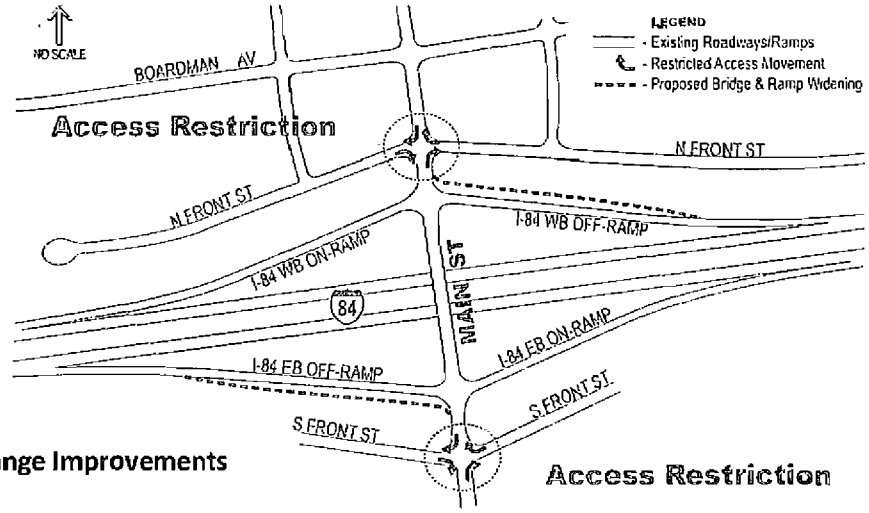


Figure 5.1a
Short/Mid-Range Improvements

The introduction of a traffic signal and the traffic growth on Main Street will substantially increase conflicts at the existing Main Street intersection with North Front Street, which is about 150 feet away from the ramp terminal. For example, it will be much more common during peak hours for queues of vehicles on Main Street to temporarily block the North Front Street intersection and nearby driveways from businesses. By 2026, the vehicle queues on Main Street approaching the off-ramp traffic signal will be 10 to 13 vehicles, and will frequently block the North Front Street intersections. Typically, one vehicle accounts for 25 feet of queue space, so the queues would extend up to 250 to 325 feet during the busy hours of the day. Queues will be longer if commercial trucks are included. Boardman Avenue is approximately 400 feet north of the freeway, and it would not typically be affected by these queues, except under unusual peak conditions.

The intersection at South Front Street will not be affected by queues created by the traffic signal at the westbound ramp, but the close proximity to the eastbound ramp will continue to create conflicts and confusion between all the turning vehicles.

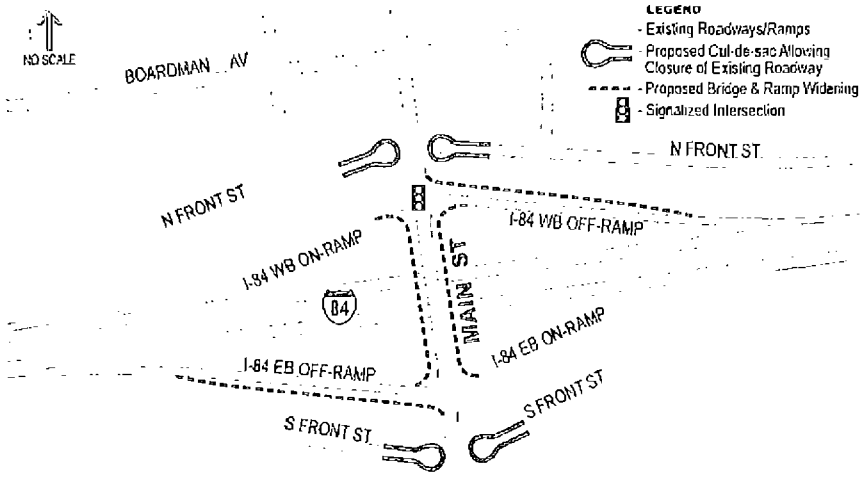


Figure 5.1b
Long-Range Improvements

To reduce the conflicts and potential safety concerns, the full-access intersections at North and South Front Street will gradually need to be more restricted, which may include limiting to right-turn movements only or full closure. North Front Street businesses currently have alternative access onto Boardman Avenue, however businesses along South Front Street do not have access to Main Street other than via South Front Street. The local street network must be in place to provide alternate access to businesses that rely on North and South Front Streets. As development occurs, portions of the network should be constructed or right of way should be set aside for future construction. It is expected that with the low turning volumes at Front Street on either side of the highway, that right-turn access could be retained for the foreseeable future.

The long term component of this alternative would be the widening of the existing bridge to match up to current standards for sidewalks and bike lanes, and provide a center left turn lane area for left-turning vehicles. The widening of the bridge would eliminate the existing sight distance issue for vehicles on the off-ramps looking across the bridge.

Timing of Improvements

It is important to establish thresholds for limiting the North and South Front Street access at Main Street so that decisions can be made through the land use review process, and as various traffic issues arise or the community reports significant conflicts. These thresholds can be tied to traffic volume levels, reported crashes, or recurring conflicts that are observed at these intersections. It is assumed that growth will happen at a constant rate over the next 20 years. If growth happens at a faster rate, then the improvements may need to be completed sooner than estimated. Conversely, if development happens at a slower rate than assumed, the improvements will be delayed until the need arises. Proposed development that is not consistent with the current land use zoning (and creates more than 10% more PM peak hour traffic) will need to amend the IAMP.

Below is a description of when the improvements would be expected to be needed.

Main Street & I-84 Westbound Ramp

Because projected minor street volumes are relatively low, the timing of the need for this signal is uncertain and will depend on the actual pattern of development in the area of the interchange. As development occurs, the City should monitor the traffic volumes at the I-84 Ramp intersection to determine if the volumes would warrant a traffic signal.

Assuming a constant rate of development over the next 20 years, the operation of the intersection, with stop control for the side street, is expected to fall below the performance standards in approximately 15 years. Reconstructing the intersection to include a separate left turn and right turn lane for the westbound approach will improve the operation of the intersection and reduce the westbound queuing. Preliminary traffic signal warrants for the PM peak hour may be met in approximately 10 years. This does not automatically mean a traffic signal should be installed, but the intersection operation should be monitored by the City.

Main Street & I-84 Eastbound Ramp

This intersection does not currently meet the preliminary traffic signal warrants in the forecast year, but a small amount of development beyond what was forecasted would likely increase the volume sufficiently to warrant a signal. In the forecast year, the minor street volumes at the intersection of Main Street & I-84 Eastbound Ramp are expected to be approximately 90% of the volumes needed to meet the Peak Hour traffic signal warrant.

Reconstructing the intersection to include a separate left turn and right turn lane for the eastbound approach will improve the operation of the intersection and reduce the eastbound queuing.

Main Street & Front Avenue (North and South)

The traffic volumes at the intersections of Main Street & Front Avenue North and Main Street & Front Avenue South should be monitored as development occurs to determine if certain turning movements should be prohibited. Access restrictions can include limiting the turning movements to right turns only or eliminating all turning movements. Access restrictions can only be implemented if alternate access is provides to properties along North and South Front Street. If access restrictions were implemented at North Front Street, Boardman Avenue can be used as alternate access to the properties along Front Street North. There is currently no alternate access for the properties along Front Street South, therefore additional access must be in place before restricting access to Front Street South from Main Street. As development occurs along Main Street south of I-84, portions of the local network should be constructed or right of way set aside for future construction.

Triggers for access changes at Front Street North and Front Street South include:

- Side street level of service drops below LOS E (15-20 years from now)
- Traffic signal installed at the I-84 westbound ramp (10-15 years from now)
- Increase in crashes
- Bridge improvement project constructed (15-20 years from now)
- Recurring public complaints about conflicts and safety at these locations

Main Street & Boardman Avenue

In the foreeast year, the side-street LOS at the intersection of Main Street & Boardman Avenue is expected to exceed the City standard. The minor street volumes at this intersection are expected to be approximately 85% of the volumes needed to meet the Peak Hour traffic signal warrant. During the school dismissal, this intersection also experiences a brief period of high delay on the side street. One near term mitigation measure would be to direct some of the high school traffic onto Columbia Avenue, so as to spread out the dismissal traffic. This would reduce the number of vehicles turning left from Boardman Avenue onto Main Street.

Main Street Overpass Bridge

From a capacity standpoint, the bridge is able to accommodate the forecasted vehicular traffic. However, the overpass bridge is currently too narrow to incorporate northbound and southbound left turn lanes at the ramp intersections, the sidewalks are very narrow and there are no bike lanes on the bridge. In order to accommodate the turn lanes, bike lanes and wider sidewalks, the bridge should be widened (which would in turn improve the sight distance for drivers on the exit ramp approaches).

Local Connectivity Plan

The future deficiencies analysis in Chapter 4 highlighted several areas where local connectivity was in need of improvement, including:

- East-west connectivity;
- North-south connectivity;
- Access to lands surrounding the Main Street interchange; and
- Access points to Main Street to the north and south of the interchange.

In response to these needs, a local connectivity plan was developed that builds on existing and planned streets in the IAMP area. This plan not only improves overall connectivity throughout the City, but

provides the ability to consolidate approaches to Main Street, while maintaining accessibility to individual properties in the corridors. Figure 5.2 displays the planned local connectivity plan, with key elements described below. The lines shown in the figures represent planned connections and the general location for the placement of the connection. In each case, the specific alignments and design will be better determined as part of development review.

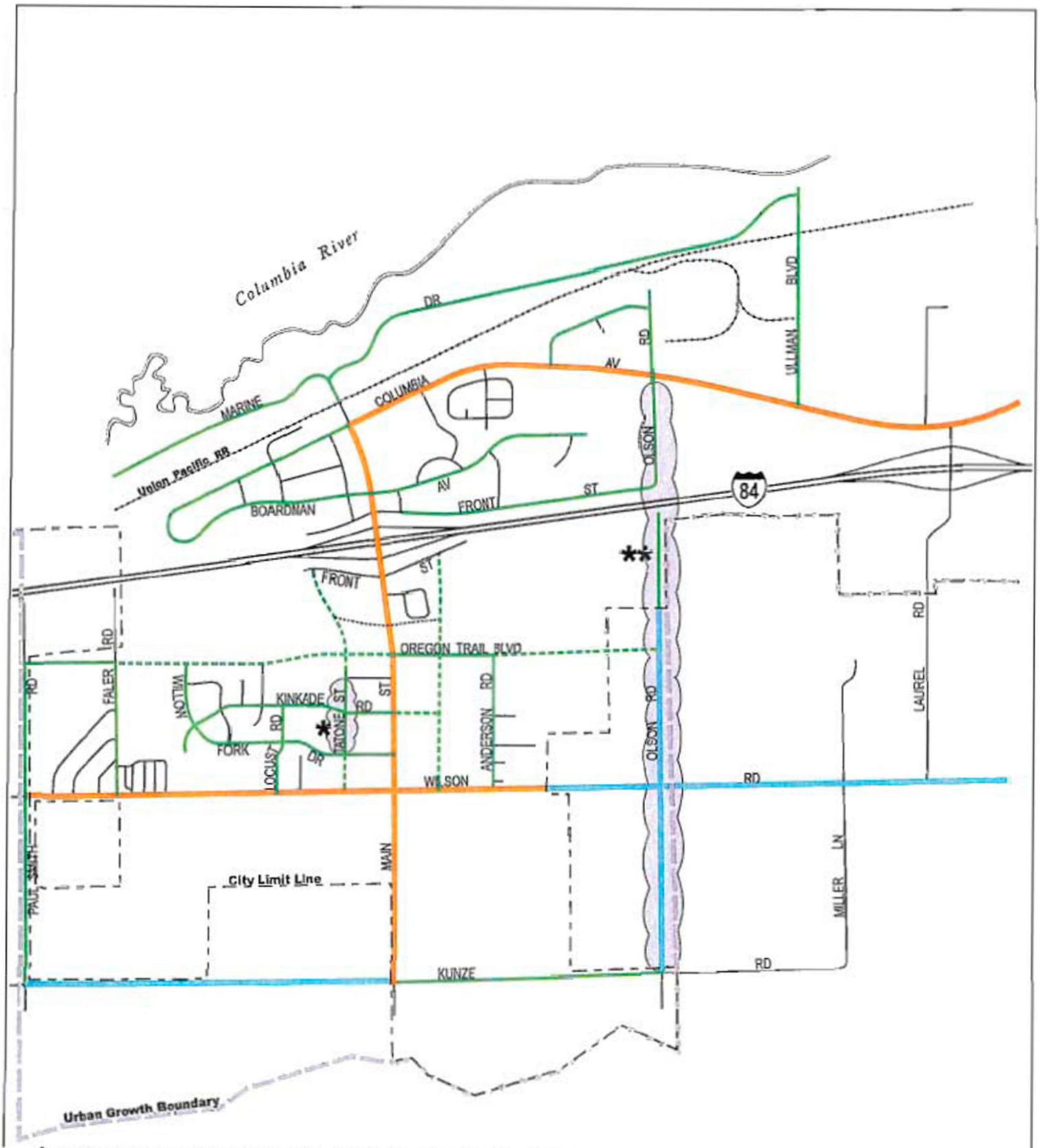
There are several potential opportunities to improve the north-south and east-west connectivity within the City, which will make drivers less dependent on Main Street for every trip around town. Currently, the north-south connectivity is limited to Main Street and Laurel Lane due mainly to the constraints of I-84, the Union Pacific Railroad right of way and the Bonneville Power Administration's right of way. The east-west connectivity is limited to Wilson Lane, I-84 and Columbia Avenue.

North-south connectivity can be strengthened by creating a network of streets that parallel Main Street which provide access to future development. These new roadways provide access for local trips and can be constructed as development occurs. Some examples of street extensions that would strengthen north-south connectivity are:

- Extend Tatone Street from City Center Boulevard to Front Street and from Willow Fork Road to Wilson Lane.
- Construct a new north-south roadway at a minimum of 600 feet east of Main Street, intersecting Oregon Trail Boulevard.

East-west connectivity can be strengthened by creating a network of streets that parallel I-84 and Wilson Lane that provide access to future development. These new roadways provide access for local trips and can be constructed as development occurs. Some examples of street extensions that would strengthen east-west connectivity are:

- Extend Kinkade Road east from Main Street when land east of Main Street develops.
- Extend Oregon Trail to the east to connect to Olson Road and west to connect to Smith Road, with intersections at Faler Road, Willow Fork Drive, Blalock Street and City Center Drive.
- Construct new connections parallel to Front Street near to or within the Bonneville Power Administration easement to better access properties in that area.
- The system improvements that enhance the north-south and east-west street connectivity will be required to be constructed by developers as vacant land is developed. The city can also choose to construct the transportation facilities prior to development as a way to encourage development in certain areas of the City. As the street connectivity is improved, drivers will be less dependent on using Main Street for local trips south of I-84.
- The city should require any future development of land east and west of South Main Street be done with the future local street network taken into account. This includes sighting of buildings on the property so that access to the future local street network will not require major reconstruction. If feasible, portions of the local street network should be constructed at time of land development. At minimum, right of way for the future local street network needs to be set aside as land is developed.
- Cross-easement access between properties should be developed in order to reduce the reliance of direct access onto Main Street. The easements will allow driveways to be consolidated or removed. They will also help to provide access to the future local street network. The cross easement access agreements should be developed as property east and west of Main Street (re)develops.



* - Tatone Street currently designated as Local. Re-designate Tatone Street as a Collector.

** - Olson Road currently designated as an Arterial. Re-designate Olson Road as a Collector inside City and as Major Collector or County segment if Olson Road overpass is not built.

LEGEND

- Existing Arterial
- Existing Collector
- Planned Collector
- Existing Local
- Planned Local
- Major Collector (County)

City of Boardman Main Street IAMP
April 2009

NO SCALE

DKS Associates
TRANSPORTATION SOLUTIONS

Figure 5.2

ROADWAY NETWORK AND CLASSIFICATION PLAN

South Main Street

South Main Street between I-84 and Wilson Road is currently a two-lane roadway with a separated multi-use path on the west side. This section of roadway should be reconstructed to the current Arterial street standards, which would include turn lanes, bike lanes and sidewalks. Constructing turn lanes at appropriate locations along South Main Street will reduce the conflict between the left turning and through traffic. Bike lanes and sidewalks along South Main Street will increase the safety and mobility of pedestrians using Main Street. An illustration of South Main Street improvements is shown in Figure 5.3.

Olson Road

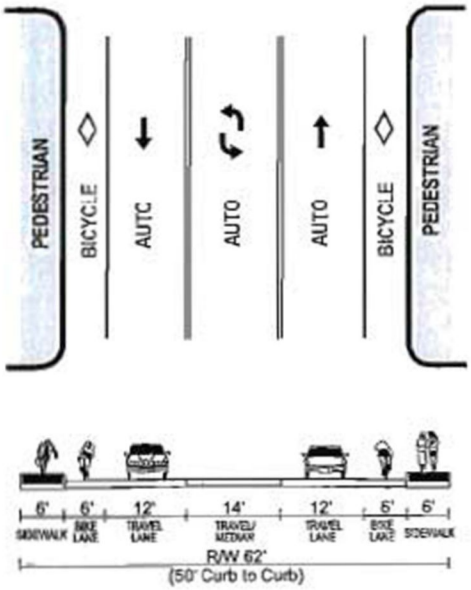
The City's 1999 Transportation System Plan envisions a new I-84 crossing at Olson Road. This new freeway overcrossing would not provide access to/from Interstate 84, but it would provide an alternate north-south circulation route between employment and school uses on the north side of the highway with residential neighborhoods on the south side. If this facility were constructed, the foregoing traffic volume estimates for Main Street would be reduced by the amount that uses the new facility. If one-third of the traffic forecasted on North Main Street chose this new route, the 2026 volumes on Main Street would be the same as they are today. Based on the length of this alternative route, and proximity of land uses nearby, it is roughly estimated that the volume that would use Olson Road to cross I-84 would range from 15% to 25% of the North Main Street forecasted volume, or about 150 to 250 vehicles during peak hours.

Ideally, both freeway overcrossings would be constructed, given adequate funding was available. However, with the limited state and local transportation resources available, it is more likely either Main Street would be widened or a new Olson Road overcrossing would be constructed. The estimated cost for these two improvements are similar, but the utility of the Main Street overpass appears to be significantly higher, since it is close to existing and planned future commercial development. The Olson Road overcrossing adjoins industrial and farmlands, and would require a very substantial upgrade of the roadway south of the highway, currently a gravel road, to be fully functional. Therefore, it appears that the preferred investment for I-84 overcrossings would be the Main Street Bridge.

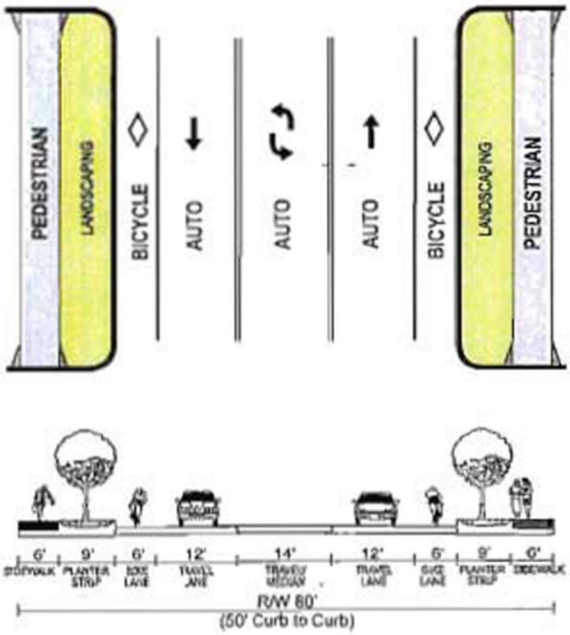
Pedestrian/Bicycle Network

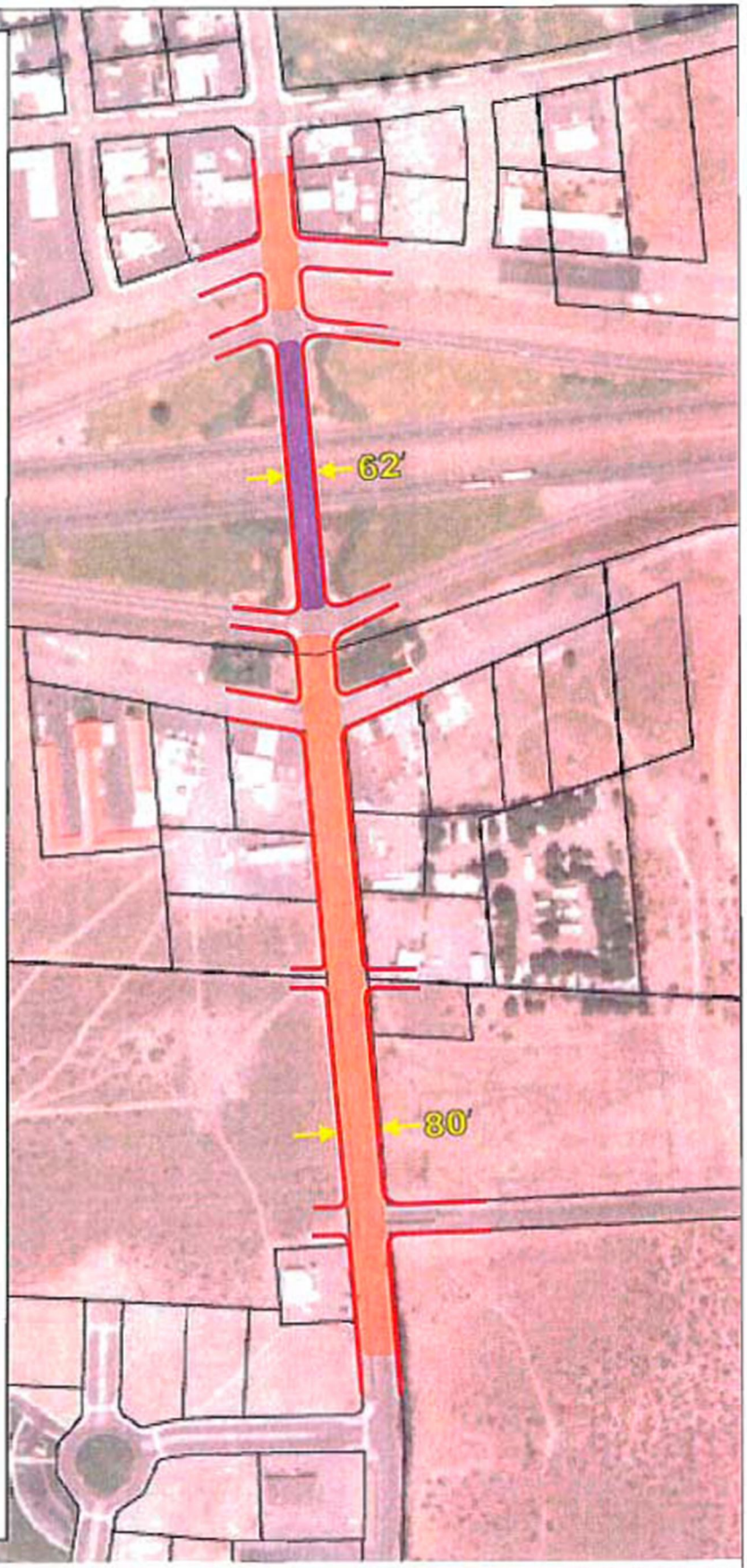
The pedestrian network should be addressed in parallel to the street network improvements. In general, curb and sidewalk similar to North Main Street will improve the safety of pedestrians along South Main Street. Pedestrian access across Main Street is also important. Pedestrian crossings shall be accommodated at the major access points (I-84 ramps, Oregon Trail Boulevard, City Center Boulevard, Kinkade Road and Wilson Road). This would include sidewalk with ADA pedestrian ramps on the corners and possibly supplemental signing and/or painted crosswalks. A "mid-block" pedestrian crossing could be accommodated on the north side of the BPA easement. The mid-block crossing could incorporate a center pedestrian refuge island, once South Main Street is reconstructed to the arterial standard.

Typical 62 foot cross-section



Typical 80 foot cross-section





LEGEND

- 80' Cross-section
- 62' Cross-section

City of Boardman IAMP
April 2009

NO SCALE

DKS Associates
TRANSPORTATION SOLUTIONS

Figure 5.3

SOUTH MAIN STREET IMPROVEMENTS

The Ped/Bike network improvements include:

- A wider sidewalk and separate bike lanes on the Main Street bridge across I-84. This would require the bridge to be widened.
- Extend the multi-use path along Wilson Road from Faler Road to Paul Smith Road.
- Provide pedestrian facilities from Wilson Road to Desert Spring Estates development.
- Provide pedestrian facilities from residential development near Faler Road to Willow Fork Drive.

Gaps in the bicycle network shall be addressed with any new roadway connectivity and new development or done as an interim measure prior to roadway connections. Bicycle lanes should be provided on all arterial roadways.

Access Management Plan

A key element of the IAMP related to the long-range preservation of operational efficiency and safety of the interchange is the management of access to the interchange crossroads (Main Street). Because access points introduce a number of potential vehicular conflicts on a roadway and are frequently the causes of slowing or stopping vehicles, they can significantly degrade the flow of traffic and reduce the efficiency of the transportation system. However, by reducing the overall number of access points and providing greater separation between them, the impacts of these conflicts can be minimized.

It should be noted that the actions were based on current property configurations and ownerships. Should property boundaries change in the future through consolidation or other land use action, the access management plan may be modified through agreement by the City of Boardman and ODOT, where such modifications would move in the direction of the adopted access management spacing standards in this plan. Modifications to the access management plan will need to be addressed in an amendment to this IAMP. Additional access points shall not be allowed where they would result from future land partitions or subdivisions. The actions listed in this plan shall not prevent the reconstruction of approaches as necessary to meet City or ODOT standard design.

Implementation of the access management plan will occur over a long time since some affected properties maintain infrastructure (e.g. buildings and internal roadways) that was established based on prior approvals of access locations to the subject roadways and some elements of the plan depend on the presence of new public streets that cannot be constructed until funds are made available. The improvements in this plan have been prioritized and categorized into short-range, medium-range, and long-range actions. The short-range actions are to be executed at this time and the medium and long-range actions are to be executed as needed funds become available or as opportunities arise during property redevelopment.

The goals of this access management plan are listed below.

1. Restrict all access from abutting properties to the interchange and interchange ramps.
2. Improve access spacing and safety factors within the interchange area.
3. In attempting to meet access management spacing standards, exceptions may be allowed to take advantage of existing property boundaries and existing or planned public streets, and to accommodate environmental constraints (i.e. BPA Easement).
4. Replace private approaches with public streets, where feasible, to provide consolidated access to multiple properties.

5. Ensure all properties impacted by the project are provided reasonable access to the transportation system.
6. Develop cross easement access agreements as properties (re)develop.
7. Align approaches on opposite sides of roadways where feasible to reduce turning conflicts.
8. Short-range actions shall accommodate existing development needs.

Using the goals, an action plan for each approach to Main Street was developed, as shown below in Table 5.1. Short-range actions shall accommodate existing development needs. There are no short-range actions identified since all of the actions are based on property (re)development to trigger changes to the access. The medium-range actions are intended to be completed within 5 to 10 years, while the long-range actions are to be implemented over the 20-year planning period as funding becomes available. Modifications to access can occur earlier if opportunities arise through property development or funding for the local street network becomes available. The medium-range action plan is illustrated in Figure 5.4, while, the long-range action plan has also been illustrated in Figures 5.4 and 5.5 to aid in the interpretation of the actions in Table 5.1. The city should require any future development of land east and west of South Main Street be done with the future local street network taken into account. This includes sighting of building on property so that access to the future local street network will not require major reconstruction. If feasible, portions of the local street network should be constructed at time of land development. At minimum, right of way for the future local street network needs to be set aside as land is developed.

Cross-easement access between properties should be developed that reduce the reliance of direct access onto Main Street. The easements will allow driveways to be consolidated or removed. They will also help to provide access to the future local street network. The cross easement access agreements should be developed as property east and west of Main Street (re)develops.

Table 5.1: Main Street Access Actions

Approach #	Medium-Range Action (5-10 years)	Long-Range Action (10-20 years)
1	(Columbia Ave) No action.	No action.
2	(Columbia Ave) No action.	No action.
3	No action.	Upon property redevelopment, approach to be combined with Approach 4 and 5, with shared access.
4	No action.	Upon property redevelopment, approach to be combined with Approach 5, with shared access.
5	No action.	Upon property redevelopment, approach to be combined with Approach 4, with shared access.
6	No action.	Upon property redevelopment, approach to be combined with Approach 7 or closed. Future access to be taken at Approach 5.
7	No action.	Upon property redevelopment, approach to be combined with Approach 6 or 8, with shared access.
8	No action.	Upon property redevelopment, approach to be combined with Approach 7, with shared access.
9	(Boardman Ave) No action.	No action.
10	(Boardman Ave) No action.	No action.
11	No action.	Upon property redevelopment, approach to be closed. Future access to be taken from Boardman Avenue and/or Front Street.
12	No action.	Upon property redevelopment, approach to be closed. Future access to be taken from Front Street or shared with Lot 4500 to access Boardman Avenue.
13	(North Front St) Restrict turning movements to only allow	Close approach and use Boardman Ave. (and 1st St. E.) as alternate

Approach #	Medium-Range Action (5-10 years)	Long-Range Action (10-20 years)
	right turn access	access.
14	(North Front St) Restrict turning movements to only allow right turn access.	Close approach and use Boardman Ave. (and 1st St. E.) as alternate access.
15	(I-84 Westbound Ramp) No action.	No action.
16	(I-84 Westbound Ramp) No action.	No action.
17	(I-84 Eastbound Ramp) No action.	No action.
18	(I-84 Eastbound Ramp) No action.	No action.
19	(South Front St) Restrict turning movements to only allow right turn access.	Close approach at such time as reasonable access becomes available (e.g. through construction of public roads and establishment of cross-access easements). This will affect Lots 1000, 1200, 1300 – approach will not be closed until reasonable access becomes available.
20	(South Front St) Restrict turning movements to only allow right turn access	Close approach at such time as reasonable access becomes available (e.g. through construction of public roads and establishment of cross-access easements). This will affect Lots 400, 500, 600, 700 – approach will not be closed until reasonable access becomes available.
21	Currently, there is no curb or gutter along the Main Street frontage of Lot 1300. Upon property redevelopment, the access along Lot 1300 shall be defined at a single point by constructing a driveway or using curb to define access.	Close approach at such time as reasonable access becomes available (e.g. through construction of public roads and establishment of cross-access easements).
22	Currently, there is no curb or gutter along the Main Street frontage of Lot 700. Upon property redevelopment, the access along Lot 700 shall be defined at a single point by constructing a driveway or using curb to define access.	Close approach at such time as reasonable access becomes available (e.g. through construction of public roads and establishment of cross-access easements). Approach will not be closed until reasonable access becomes available.
23	No action.	Close approach at such time as reasonable access becomes available (e.g. through construction of public roads and establishment of cross-access easements). Approach will not be closed until reasonable access becomes available.
24	No action.	Close approach at such time as reasonable access becomes available (e.g. through construction of public roads and establishment of cross-access easements). Approach will not be closed until reasonable access becomes available.
25	No action.	Close approach at such time as reasonable access becomes available (e.g. through construction of public roads and establishment of cross-access easements). Approach will not be closed until reasonable access becomes available.
26	(Oregon Trail Blvd) No action.	No action.
27	No action.	Close approach upon property redevelopment. Future access to be taken from Approach 28 or future Oregon Trail Boulevard.
28	No action.	Approach may remain upon property redevelopment. New approach may be relocated to future Oregon Trail Boulevard.

Notes: Refer to Figure 5.2 for location of state highway approaches cited in the above table.

Policies, Rules, & Ordinances

As land develops, redevelops or changes use within the interchange area, compliance will be required with the access management and circulation plans conceived through this study. As part of the adoption of the IAMP, the City of Boardman development codes are being amended to reflect the standards and plans. In brief, the code amendments implement:

- Access spacing requirements
- Local Street connectivity
- Access Management Plan
- Cross-easement accesses

In addition, the Transportation System Plan will be amended to adopt the Local Street Network and the Access Management Plan

Cost Estimates

Planning-level cost estimates for all improvement alternatives were calculated to aid in the identification of needed funding. Cost estimates included the fundamental elements of roadway construction projects, such as the roadway structure, bridge structures, curb and sidewalk, earthwork, retaining walls, pavement removal, and traffic signals. The estimated costs are shown below in Table 5.2 and Table 5.3. All costs are in 2007 dollars and do not reflect the added cost of inflation. The potential funding sources are indicated (State, City or Private), but they do not assure the availability or approval of such improvements.

In order to provide funding for future projects (i.e. local street network and South Main Street), the City should establish a System Development Charge (SDC) or Local Improvement District (LID) program. These types of programs are set up to collect funds from developments and/or land owners and are based on the amount of traffic generated.

Table 5.2: Cost Estimates for Main Street IAMP Improvements

Alternative	Potential Funding Source	Estimated Cost
Main Street Bridge at I-84		
Additional approach lane on exit ramp	ODOT/ City	$150,000
Traffic Signal at I-84 Westbound Ramp	ODOT / City	$300,000
Reconstruct overpass	ODOT / City	$10-15 million
Reconstruct South Main Street*	City / ODOT	$3 million

* Does not include Right of Way acquisition.

Table 5.3: Cost Estimates for Local Street Network

Improvements (not including right-of-way)	Potential Funding Source	Estimated Cost
Oregon Trail (east)	City / Private	$2 Million
Oregon Trail (west)	City / Private	$3.3 Million
Tatone St (north)	City / Private	$1.3 Million
Tatone St (south)	City / Private	$500,000
North/South Collector (east of Main Street)	City / Private	$3 Million
Expanded Pedestrian & Bicycle Network*	City / Private	$750,000

LEGEND

0 - Access Location & Number

000 - Tax Lot ID#

- Medium Range Limited Access

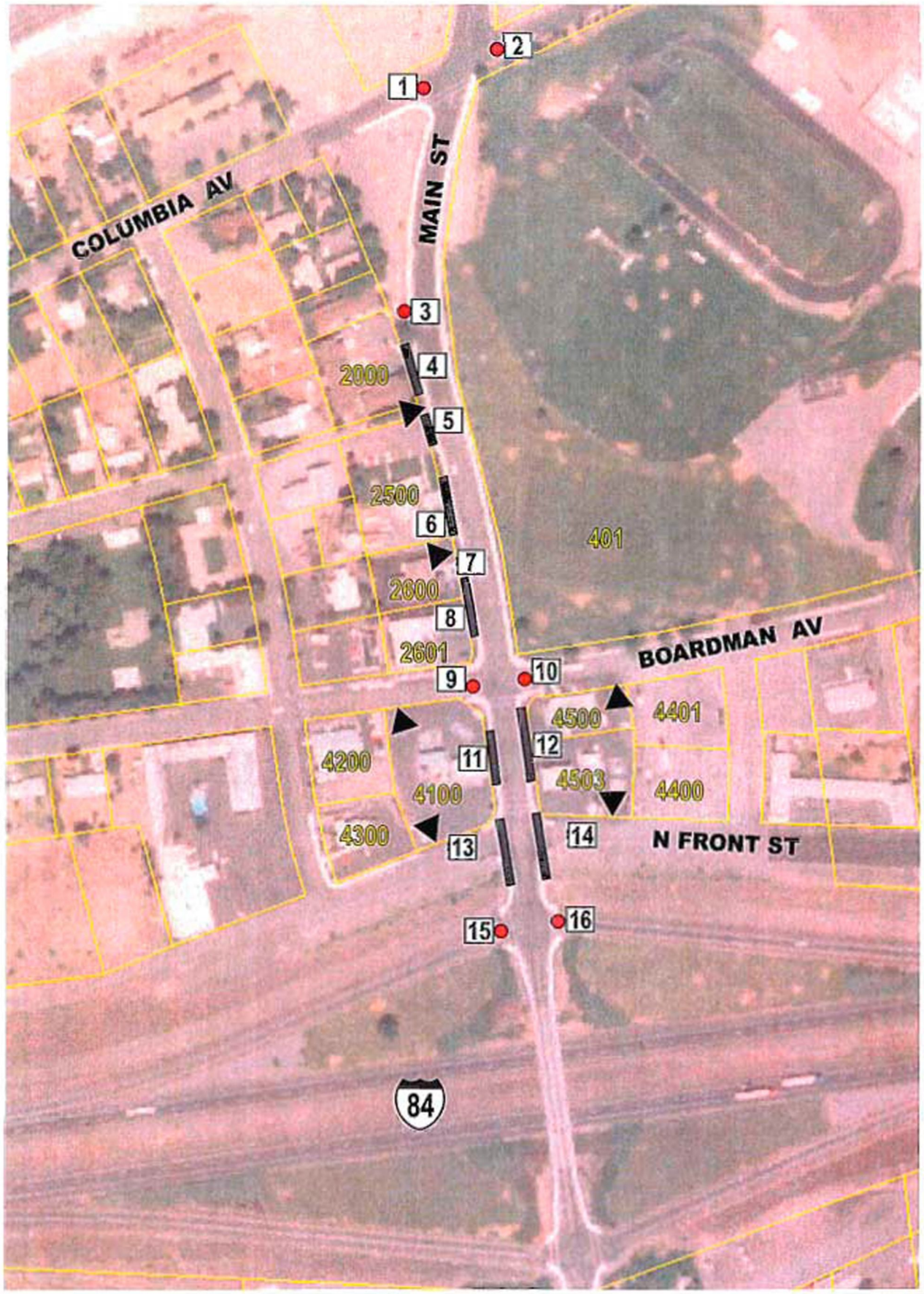
- Medium Range Future Curb

City of Boardman Main Street IAMP
April 2009

NO SCALE

Figure 5.4

MAIN STREET IAMP MEDIUM RANGE ACCESS MANAGEMENT



LEGEND

0 - Access Location & Number

000 - Tax Lot ID#

- Long Range Future Access

- Long Range Future Curb

NO SCALE

City of Boardman Main Street IAMP
April 2009

Figure 5.5

MAIN STREET LONG RANGE ACCESS MANAGEMENT PLAN NORTH

LEGEND

- [0] - Access Location & Number
- 000 - Tax Lot ID#
- Long Range Future Access
- Long Range Future Curb
- Future Roadway Network

City of Boardman Main Street IAMP
April 2009

NO SCALE

Figure 5.6

MAIN STREET LONG RANGE ACCESS MANAGEMENT PLAN SOUTH

Alternative Evaluation and Prioritization

Alternative Evaluation

Using the objectives for the Main Street IAMP outlined in Chapter 2, alternatives were evaluated to ensure the goals established at the outset of the project were met. The objectives used included criteria related to public involvement, addressing local issues, provision of transportation improvement alternatives, conformity with statewide plans and policies, and inclusion of policies and implementing measures to preserve the functionality of the interchange.

Prioritization of Improvements

The improvement alternatives have been prioritized into short, medium, and long-range actions, as shown in Table 5.3 to provide guidance for future implementation and funding. Short-range actions represent immediate needs and should be implemented within a 5 year period. There were no short-range actions identified. If medium-range actions are triggered within 5 years, they can be considered short-range improvements. Medium-range actions represent improvements that are not required immediately, but should be given priority over improvements identified as long-range actions. Assuming all improvements are planned for construction within a 20-year period, medium-range actions should be considered for implementation within 5 to 10 years. Long-range actions typically represent improvements of lower priority or requiring higher levels of funding. These improvements should be planned for construction within 10 to 20 years.

It should be recognized that this prioritization of projects is not intended to imply that projects of higher priority must be implemented before projects of lower priority. Should opportunities arise, through private land development or other means, to construct specific projects earlier than the estimated time frame provided by this list, those resources should be utilized.

Table 5.3: Transportation Improvement Prioritization

Short-Range Improvements (0 to 5 years)	Triggers	Estimated Cost	Potential Funding Source
◦ No Specific short-range actions identified. Medium-range improvements if triggered earlier than 5 years.	- Increase in crashes - Property (re)development	NA	◦ City ◦ Property owners
Medium-Range Improvements (5 to 10 years)			
◦ Reconstruct South Main Street.	- Money becomes available - Property (re)development	$3,000,000	◦ ODOT ◦ City
◦ Medium-range actions from access management plan.	- Increase in crashes - Recurring public complaint - Property (re)development	NA	◦ City ◦ Property owners
◦ Construct additional approach lane on I-84 ramp terminals	- Increase in crashes - LOS drops below standards - Turn lanes warranted	$150,000	◦ FHWY ◦ ODOT ◦ City
Long-Range Improvements (10 to 20 years)			

◦ Construct new public streets according to adopted Local Connectivity Plan.	- Property (re)development	$10 to 12 million	◦ City ◦ Property owners
◦ Install traffic signal at Main Street & I-84 Westbound Ramp	- Traffic signal warrants met	$300,000	◦ ODOT ◦ City
◦ Reconstruct Main Street Bridge over I-84 - including wider sidewalk, bike lanes and turn lanes.	- Turn lanes warranted - Money becomes available - ODOT Bridge program - structural deficiency - Increase in bike/ped crashes	$10 to 15 million	◦ FHWA ◦ ODOT ◦ City
◦ Long-range actions from access management plan.	- Increase in crashes - Recurring public complaints - Property (re)development	NA	◦ City ◦ Property Owners
Note: Medium and long-range improvements could be constructed sooner than anticipated as opportunities arise through private property development or other means.			

Project Participants

Project Management Team

Cheryl Jarvis-Smith	ODOT Region 5
Teresa Penninger	ODOT Region 5
Barry Beyeler	City of Boardman
Dave Winters	City of Boardman
Carl Springer, PE	DKS Project Manager

Project Staff

Carl Springer, PE	DKS Project Manager
Pamela O'Brien, PE	DKS Senior Engineer
Tom Armstrong	Winterbrook Planning

Project Sponsor

This project is partially funded by a grant from the Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by federal Transportation Equity Act for the 21st Century (TEA-21), local government, and the State of Oregon funds. The contents of this document do not necessarily reflect views or policies of the State of Oregon.

City of Boardman
Main Street Interchange Area Management Plan
City Council Public Hearing
September 15, 2009

IAMP ADOPTION SUMMARY
(Adapted from CC/PC Joint Work Session of July 22, 2009)

The City of Boardman is proposing to adopt the Main Street Interchange Area Management Plan (June 2009 Draft). The purpose of the Interchange Area Management Plan, or "IAMP," is to identify long-term circulation and access improvements to preserve the capacity and function of the interchange. The draft plan projects how growth is expected to change transportation conditions over the next 20 years and recommends transportation solutions to meet the needs of the community over this time horizon. To this end, the IAMP includes recommendations that enhance the reliability, safety and efficiency of the local transportation system in and around the interchange.

As part of the upcoming adoption process, the City will be considering amendments to the Development Code that implement the IAMP. Proposed Development Code amendments address access management, transportation analysis, and circulation and local street connectivity that may be required when parcels in the vicinity of the interchange develop or redevelop.

The following points summarize the City's actions in adopting the IAMP and the implications for future development in the vicinity of the interchange.

- **The City will legislatively amend the Transportation System Plan to incorporate the IAMP in the City's adopted long-range plan.**
    - The IAMP identifies a local street network, access management, and specific roadway and interchange improvements that will ensure that the transportation system around the interchange operates efficiently and safely.
    - Planning for an efficient local street system in advance of full build-out of development around the interchange will ensure that a logical and efficient network will be available to provide access to existing and future businesses.
    - Adopting the IAMP's list of needed transportation improvements prioritizes these projects locally, is a required action before the City can seek state funding, and will ensure that proportional private investment in the system, as part of future development, will be strategically allocated.

- **To implement the IAMP, the City will amend the Zoning Map to include an overlay district and will amend the Development Code to include a chapter devoted to land use, development, and redevelopment requirements within the district.**

    - The proposed IAMP Overlay District does not change the underlying zoning of property in the defined management area.

    - Development proposals for any parcel that is wholly or partially within the IAMP Overlay District boundary, as shown on the City's Zoning Map, will be reviewed pursuant to the new IAMP-related Development Code requirements.

    - In large part, the proposed IAMP Overlay District Overlay Zone chapter refines and clarifies existing city requirements, as they pertain to development within the overlay, and does not represent extra requirements; in many instances the IAMP reduces the requirements for commercial development traffic impact analyses.

- **The IAMP is a long-range plan with a 20-year planning horizon; the City's adoption of the IAMP will not result in immediate changes in the vicinity of the interchange, but rather will set the parameters for future development over time.**

    - Based on an annual growth rate of 2.5% and related development assumptions, no short-range (0-5 years) transportation improvements will be necessary in the vicinity of the interchange.

    - Medium- (5-10 years) and long-range (10 – 20 years) improvements identified in the IAMP will be triggered by system failures (such as the level of service drops below standards or an unacceptable increase in crashes) and will be implemented as money becomes available and/or property (re)develops.

    - Access management is key to safe and efficient traffic circulation near the interchange, **but under no circumstances will existing accesses be closed without a reasonable alternate access first being available.**

CITY of BOARDMAN
Community Development
STAFF REPORT

DATE: September 8, 2009

TO: Boardman City Council

FROM: Barry C. Beyeler, Community Development Director

SUBJECT: Post Acknowledgement Plan Amendment 01-2009 – Boardman Main Street Interchange Area Management Plan

HISTORY

The City of Boardman, through the Transportation Growth Management (TGM) Grant Program administered jointly by the Oregon Department of Land Conservation and Development (DLCD) and the Oregon Department of Transportation (ODOT), initiated an Interchange Area Management Plan (IAMP) study to establish an IAMP for the Interstate 84 interchanges within the City of Boardman. The previous public hearings on the IAMP in 2007 did not produce an approved IAMP. Then Mayor Ed Glenn appointed a Steering Committee, comprised of affected land owners and three City Councilors, to work collaboratively with ODOT to find sclutions to the issues which posed barriers to approval of the IAMP. The appointed Steering Committee held numerous meetings with representatives of ODOT to work out these issues. As a result of the work of the Steering Committee, the City elected to remove the Port of Morrow interchange from the original plan and continued with planning for the Main Street Interchange only. The City received additional funding, through ODOT and the TGM Program, to complete the revisions sought by the Steering Committee and to draft implementation language within the Boardman Development Code.

The Steering Committee and ODOT produced a Revised Final DRAFT Report of the Boardman Main Street IAMP in late April of 2009 and have finalized draft language for the Boardman Development Code to implement of the current version IAMP. There have been several public meetings held, concerning the changes to the report and the IAMP implementation language, an open house to explain the changes to affected landowners and citizens, and a joint Planning Commission and City Council workshop on the changes made to the Interchange Area Management Plan and the associated implementation language. The IAMP and draft code language is now at the Planning Commission public hearing stage in the Post Acknowledgement Plan Amendment process. The Planning Commission will gather testimony from the public on the approval and implementation of the IAMP and will forward a recommendation on to City Council for their consideration at a hearing scheduled for September 15, 2009.

APPLICANT'S PROPOSAL

The City of Boardman is the applicant in this proposal. The proposal is to legislatively amend the Transportation System Plan to incorporate the IAMP in the City's adopted long-range plan. The IAMP identifies a local street network, access management, and specific roadway and interchange improvements that, upon adoption, will become the long range transportation plan for the area identified as the Interchange Area Management Plan Overlay District (Figure 3.1). **Figure 3.1 is included as Attachment "A" The proposed zoning map changes indicating the Overlay District are attached as Attachment "A-1"**

The proposal includes actions to implement the IAMP, including establishing an Interchange Area Management Plan (IAMP) Overlay District on the City's Comprehensive Plan and Zoning Map. Associated changes to the Boardman Development Code will apply to the properties within the boundaries of the Interchange Area Management Plan, to implement the provisions of the Final Report for the Boardman Main Street Interchange Area Management Plan.

The City will establish an overlay district by addition of Chapter 2.5 – Interchange Area Management Plan Overlay District, which identifies the requirements of development approval within the district, including transportation impact review. The overlay district does not change the underlying zoning, and therefore does not change the allowable uses, of the properties within the district. **Chapter 2.5 is included as Attachment "B".**

The City will amend language Boardman Development Code Chapter 3.1 – Access and Circulation, to include cross references to Chapter 2.5 - Interchange Area Management Plan Overlay District and to indicate access requirements in the Overlay District. **Chapter 3.1 is included as Attachment "C".**

The City will amend Boardman Development Code 4.10 – Traffic Impact Study to include cross reference to the requirements of Development Code Chapter 2.5 and 3.1 and to clarify traffic impact review and traffic study requirements. **Chapter 4.10 is Included as Attachment "D".**

The City will adopt the amendments to Chapter 5 of the April 2009 Final Report of the Boardman Main Street Interchange Area Management Plan. **Amendments to Chapter 5 are included as Attachment "E", Figure 5.5 as Attachment "E-1" and Figure 5.6 as Attachment "E-2"..**

The Boardman Main Street IAMP Findings of Compliance: State Policies and Requirements is **included as Attachment "F".**

With language changes to the Boardman Development Code and amendments to Chapter 5 of the Boardman Main Street Interchange Area Management Plan (IAMP), which include figures 5.5 and 5.6, the implementation for the approval of the provisions contained within the IAMP can be approved and adopted by the City Council. Should the City Council adopt the IAMP, with noted amendments, and Development Code amendments the Oregon Transportation Commission (OTC) will begin review and the adoption process for the Main Street IAMP as an official part of the Oregon Highway Plan. The OTC, should they not approve

and adopt the Main Street IAMP, will remand the issue back to the City with noted necessary corrections for OTC approval.

OVERVIEW OF EXISTING CONDITIONS

The Boardman Main Street Overpass, I-84 Exit 164, is of a 1964 design and 1966 construction for freeway overpasses. The overpass is structurally sound and is currently functionally adequate. Although there are publicly identified deficiencies concerning sight lines and distances exiting the freeway off ramps, the interchange still meets ODOT standards for safety and function. The overpass does not have adequate bicycle lanes and must be significantly reconfigured to allow for bicycle lanes and a center turn lane to address future traffic demand projections.

Under existing Development Code requirements and applicable Oregon land use planning requirements, complete traffic impact studies and compliance with the Transportation Planning Rule (Oregon Administrative Rule 660.0012) and Oregon Department of Transportation Access Management Rules (Oregon Administrative Rule 734-051) would be required for approval of developments in the commercial areas adjacent to the Boardman Main Street Overpass.

Public Comment

As of September 7, 2009, the City has received no written public testimony.

Three members of the public provided oral testimony at the August 19, 2009 Planning Commission hearing. Their comments can be found in the meeting minutes in Attachment X. The following is a summary of public comments and concerns and staff response.

Long-range plans, such as the one proposed for adoption, are quickly out-of-date and can be overly restrictive and a detriment to economic development in Boardman.

Response: The IAMP is intended to plan for a 20-year time horizon, but the City may revisit the plan and undertake a legislative amendment to update the plan at any time. The proposed amendments to Chapter 5 of the IAMP (Attachment "E", "E-1" and "E-2") acknowledge the need to update the document to respond to growth in the area and include the circumstances under which an update will be required. In this way the IAMP will remain current and responsive to changes in the City's growth and development patterns.

Rather than hinder development, having an adopted long-range transportation plan for the area around the interchange provides certainty for future developers and simplifies the approval process. Upon adoption, City decisions in the Overlay District will be made consistent with the IAMP with regards to location of future right-of-way, access management, and prioritization of transportation investments. With the adoption of the associated code amendments, future development proposals that are consistent with the land use assumptions in the IAMP will only have to provide the number of trips expected to be generated. Once the IAMP is adopted, development proposals within the Overlay District may rely on the transportation analysis

therein, analysis that would otherwise be required of the applicant pursuant to existing city code. As an example of the previous statement, the motel/restaurant development on SE Front is part of the overall traffic generation assumptions in the IAMP document. This represents a significant development cost which the developer has avoided due to the work performed in development of the IAMP.

It is also important to note that projects in an adopted plan have been vetted through a public process, indicating a commitment on behalf of the City to preserve investments that are made through implementation of access management and development of the local street network. The City of Boardman's commitment to the transportation projects in the IAMP through local adoption of this plan increases possibility of state funding.

If ODOT would widen the Main Street overcrossing, no other local improvement would be necessary.

Response: The deficiencies of the existing overpass to accommodate non-motorized traffic and the future improvements that will be necessary to accommodate needed ramp-widening are detailed in the IAMP (see Table 5.3: Transportation Improvement Prioritization). Regardless of future improvements to the Main Street overpass, local transportation solutions will be necessary to ensure safe and efficient circulation in the vicinity of the interchange. The Boardman Main Street IAMP identifies that a key element of the long-range preservation of operational efficiency and safety of the interchange is the management of access to Main Street. Because access points introduce a number of potential vehicular conflicts on a roadway and are frequently the causes of slowing or stopping vehicles, they can significantly degrade the flow of traffic and reduce the efficiency of the transportation system. For the Main Street interchange, the problem is expected to be vehicles, including trucks, backing up onto the freeway ramps. Widening the deck on the overpass does not eliminate potential points of conflict caused by access onto Main Street and does not eliminate the queuing problems.

Safety issues on the ramps are anticipated to need addressing in the medium- to long-range time frame and the IAMP calls for the construction of additional approach lanes on the ramp terminals and, as traffic conditions meet warrants, the installation of a traffic signal at the westbound ramp to improve the operation of the intersections and reduce queuing. The ultimate improvement alternative includes expanding the current freeway interchange by widening the bridge, which would improve safety by eliminating the existing sight distance issue for vehicles on the off-ramps looking across the bridge.

The restrictive funding environment in the State of Oregon for transportation improvement projects is another compelling factor in implementing lower-cost improvements first. The Oregon Highway Plan, which helps guide where ODOT invests transportation dollars, includes a policy that requires ODOT to improve efficiency and management before adding capacity to the system. This policy also would effectively eliminate serious consideration of more costly improvements, such as moving the interchange ramps in order to gain more space between them and local access roads.

Proposed access restrictions on South Main Street, the needed access sharing that results, and the right-of-way needed to accommodate the proposed local roadway system will have negative impacts on property values in the Overlay District.

Response: The IAMP includes an Access Management Plan that includes short-, medium-, and long-range actions that, over time, will reduce the overall number of access points on Main Street. This will provide greater separation between access points and will minimize the number of potential vehicular conflict points on the roadway. In large part, changes to access will be required at the time of development, through the City's development approval process. A notable exception to this may be City-initiated improvements to South Main Street as a result of the FHWA Small Cities economic stimulus grant. However, under no circumstances will existing access points to a subject parcel be closed without a reasonable alternate access first being available.

Having a well-planned, safe, and efficient roadway system south of the Main Street Interchange will enhance property values in the area. Adopting a long-range transportation plan for the area ensures that the most efficient, cost-effective infrastructure solutions can be implemented prior to or concurrent with development. Planning for a local street system in advance of full build-out of development around the interchange will ensure that a logical and efficient network will be available to proved access to existing and future businesses. In addition, adopting a list of needed transportation improvements prioritizing these projects locally, is a required action before the City can seek state funding, and will ensure that proportional private investment in the system, as part of future development, will be strategically allocated.

Eliminating access off of South Front Street will reduce the economic viability of development projects on properties that currently take access from this street.

Response: When traffic warrants it, the full-access intersections at North and South Front Street will need to be more restricted, which may include limiting to right-turn movements only or full closure (see Transportation Alternatives, IAMP Chapter 5). However, based on an annual population growth rate of 2.5% and associated traffic projections, this action is considered a "Long-Range Improvement" (see Figure 5.1b) and is not anticipated to be necessary until 10 to 20 years in the future. Without access management, it is anticipated that at some point in the future the economic viability of this area of Boardman will more likely be negatively impacted by increased traffic and travelers trying to negotiate queuing lines and multiple access points on Main Street. Addressing these safety and livability issues after this area is substantially built out will limit viable, cost-effective solutions.

FINDINGS OF FACT

1) Public Notice of the Planning Commission Hearing was published in the East Oregonian on July 30, 2009.

2) Public Notification was mailed to all property owners within 250 feet of the IAMP boundaries on July 30, 2009.

3) Public Notice was sent to all individuals whom have requested information on the IAMP on July 30, 2009.

4) On June 22, 2009, two Focus Groups and an Open House were conducted to gather citizen input and to answer questions about the Boardman Main Street Interchange Area Management Plan.

5) Invitation letters were sent to Focus Group stakeholders in advance of the June 22 meeting. The Focus Group stakeholders were also contacted by phone one week before the meeting.

6) The Open House was advertised on the local electronic reader board and by notices posted throughout the community for one week prior to the June 22 meeting.

7) On July 22, 2009, a joint workshop of the Boardman city council and Boardman Planning Commission was held concerning the Boardman Main Street Interchange Area Management Plan.

8) The Joint Workshop of the City Council and Planning Commission on the Boardman Main Street Interchange Area Management Plan was advertised on the local electronic reader board and posted throughout town for one week prior to the meeting on July 22, 2009.

9) The April, 2009, Final Report for the Boardman Main Street Interchange Area Management Plan meets the relevant policies of Boardman Comprehensive Plan Chapters 1, 2, 9, 10, and 12 as referenced later in this report.

10) The April, 2009, Final Report for the Boardman Main Street Interchange Area Management Plan will require changes to Chapter 11 of the Boardman Comprehensive Plan to incorporate the additions and recalculations of the Capital Improvement Plan, updates to the Public Facilities Plan and establishment of transportation Systems Development Charges as referenced later in this report.

11) The April, 2009, Final Report for the Boardman Main Street Interchange Area Management Plan meets all relevant policies of the Boardman Transportation System Plan as referenced later in this report.

12) On August 19, 2009, the Boardman Planning Commission met for a public hearing on the Boardman Main Street Interchange Area Management Plan.

13) In accordance with Boardman Municipal Code 2.16.060 – Quorum – rules and regulations, the three members present for the public hearing comprise a legal quorum of the 5 current members of the Planning Commission.

14) During public testimony at the August 19, 2009 hearing, no citizens testified in support of the project. Three citizens spoke as opponents, identifying specific elements of the plan that they were opposed to (see summary under "Public Comment" section of this report), but two of these speakers also praised the long-range planning effort and the IAMP in their remarks.

15) Teresa Penninger, of the Oregon Department of Transportation, testified in support of the proposed plan at the Planning Commission public hearing.

16) Grant Young, of the Oregon Department of Land Conservation, and Development testified in support of the proposed plan at the Planning Commission public hearing.

17) The Boardman Planning Commission, after hearing public testimony and deliberation of the testimony voted to approve the plan as submitted with the two conditions contained in the Boardman Planning Commission Staff Report on the Boardman Main Street Interchange Area Management Plan.

18) The Boardman Planning Commission forwarded a recommendation to the Boardman City Council to adopt the Boardman Main Street Interchange Area Management Plan with the stipulated conditions and to approve an implementing ordinance which included the conditions stipulated in the Planning Commission Staff Report.

19) Public Notice for the City Council Hearing was published on August 26, 2009, in the East Oregonian newspaper.

20) Public Notification was mailed to all property owners within 250 feet of the IAMP boundaries on August 26, 2009.

21) Public Notice was sent to all individuals whom have requested information on the IAMP on August 26, 2009.

APPLICABLE COMPREHENSIVE PLAN GOALS OVERVIEW

There are six planning Goals of the Boardman Comprehensive Plan directly applicable in this application. They are; Goal 1 Citizen Involvement; Goal 2: Housing; Goal 9: Economic Needs; Goal 10 Housing; Goal 11: Public Facilities; and Goal 12 Transportation.

CHAPTER 1: CITIZEN INVOLVEMENT: Notification of all potential affected property owners has been accomplished by notice letters to each property, posting of the property and publication in the East Oregonian daily newspaper. In addition the City has the notice available on the city's website at www.cityofboardman.com along with the staff report for the applicant's request.

CHAPTER 1 – CITIZEN INVOLVEMENT COMPREHENSIVE PLAN POLICIES:

1. Provide for change in Comprehensive Plan relative to new or unanticipated developments, major change in community, change in Council or Planning Commission policy, and through regular review and re-evaluation.

2. Consistency must be maintained between the Comprehensive Plan and Development Code and other supplemental ordinances and policies in order to maintain the integrity of the planning effort.

3. The City should endeavor to adhere to the spirit of the Land Conservation and Development Commission in its planning activities.

4. The Planning Commission is officially designated as the Citizen Involvement Committee.

5. The City completed a Community Visioning workshop in 1997 to gain understanding of the current needs and concerns of the community.

The request is consistent with policies 1-4 of Goal 1 Citizen Involvement polices of the Boardman Comprehensive Plan. Adoption of the Main Street IAMP, which will become an element of the City's Transportation System Plan, will amend the City's Comprehensive Plan. Consistent with Policy #1, the IAMP has been developed to respond to the City's long-range development needs. As demonstrated in findings elsewhere within this report, the development of the Main Street IAMP is consistent with State transportation goals and policies and the adoption of the plan is consistent with LCDC's Goals (**included as Attachment "F"**). Policy #5 is not related to the proposed action; however, additional citizen input was gathered through the Interchange Area Management Plan process, as such policy #5 this action is consistent with policy #5.

CHAPTER 2: LAND USE PLANNING: The directly related policies of this proposed action are policies #3, #4, #5 and #6. These policies are to coordinate the land use planning efforts of the city and to meet the overall Comprehensive Plan Policies and Goals.

CHAPTER 2 – LAND USE PLANNING COMPREHENSIVE PLAN POLICIES:

1. *The City completed a Buildable Lands Analysis in 1997 which reflected that the City has ample land within its Urban Growth Boundary to meet commercial and housing needs of the City for the next 20 years.*
2. *The City encourages the development of infill and redevelopment of existing land in order to balance the need to expand the Urban Growth Boundary (UGB).*
3. *The City has adopted the City of Boardman Development Code, a unified zoning and subdivision land use code to facilitate the development process and implement the land use goals of the City as outlined in the Comprehensive Plan.*
4. *The City recognizes that the location of a City Center is important to the development of the City of Boardman.*
5. *The City has adopted language in the Development Code as Chapter 2.2.190 that will assist in the implementation of a City Center in Boardman.*
6. *The development of the City Center will use the Downtown Plan completed in 2000 as a resource document when guiding future development within the City of Boardman.*
7. *The City will continue to work with Morrow County to maintain a consistent and coordinated plan for management of the Urban Growth Boundary (UGB) and the Urban Growth Area (UGA).*
8. *The City will continue to work with the Port of Morrow to encourage development of industrial lands within the Urban Growth Boundary.*

This proposal is consistent with policies #1 and #2 but not directly related to the proposal. The proposal is consistent with policies #3 - #6 as it directly addresses policies concerning the downtown plan and areas around the freeway interchange by provision of transportation connectivity planning and protection of the existing system function until improvements are necessary. As this proposal does not include industrial lands or areas outside of the city limits of the city policies #7 and #8.

CHAPTER 9: ECONOMIC NEEDS: The directly related policies in Goal 9 – Economic Needs are #1, #2, and #4. Polices #3 and #5 are related to industrial lands which this proposal does not address directly.

CHAPTER 9 – ECONOMIC NEEDS COMPREHENSIVE PLAN POLICIES:

1. *Advance the position of Boardman as a regional center for industry, power generation, commerce, recreation, and culture.*
2. *Encourage tourist commercial activity near Interstate 84.*
3. *Allow for the creation of industrial park development with adequate off-street parking, landscaping, and site screening.*
4. *Promote cooperation among the city, the Port of Morrow, and other interested parties to facilitate the most effective uses of public facilities serving the planning area.*
5. *As resources permit, review the City's supply industrial land to monitor supply and demand.*

Adoption of this proposal directly addresses policy #1, #2 and #4 in it provides a plan to address the transportation needs and connectivity for the commercial areas in an effective manner, providing for future commercial growth while meeting transportation demands. Policies #3 and #5 are unrelated in they deal with industrial lands issues which are not related to the IAMP proposal.

CHAPTER 10: HOUSING: Goal 10 policies, although not directly related to the adoption of the April 2009 Boardman Main Street Interchange Area Management Plan, do influence the overall functional operation of the interchange area through traffic counts from housing projects adding to overall traffic at the interchange.

CHAPTER 10 – HOUSING COMPREHENSIVE PLAN POLICIES

1. *The City shall provide a variety of living environments to meet regional housing needs for those of different family size and income.*
2. *The City, recognizing the financial difficulties of a segment of the City's population in providing themselves safe, sanitary and healthful shelter, shall work cooperatively with the private sector to seek state and federal aid where desirable to assist persons to obtain suitable housing.*
3. *Encourage new development concepts to meet changing housing demands and to provide self-contained recreation facilities.*
4. *Locate high-density multiple-family developments in areas to offer a buffer between single-family residential and commercial or industrial uses, close to schools and shopping, and with quick access to arterial streets.*
5. *Encourage planned unit developments while maintaining an overall low-density profile by incorporation of more open space in the development.*
6. *Promote energy efficient programs.*
7. *Provide infill opportunities for attached rowhouse development, duplex and triplex development in residential neighborhoods.*
8. *The City shall promote where possible, the evolution of safe and aesthetically pleasing residential neighborhoods that are efficiently integrated with business and commercial property, schools, parks, public facilities and other urban development.*
9. *The City shall give consideration to development of alternative residential construction both in form and layout for such reasons as aesthetics, energy conservation, reduced development costs and provision of open space.*

10. *Encourage through provisions in the City's Development Code, the opportunity to develop mixed use Development (commercial and higher density residential) to provide affordable housing options for all residents of Boardman.*
11. *The City shall encourage residential development within city limits in areas which are appropriate for urban development.*
12. *Work with federal and State agencies to establish funding for low to moderate income housing projects within Boardman.*
13. *Given recent growth trends, it will be important for the City and Morrow County staff to monitor the supply of buildable land and, if necessary, revise future housing need and land supply projections.*

Although these policies are not directly related to the Interchange Area Management Plan, housing uses do add to the traffic totals at the Main Street interchange. The IAMP accounts for overall existing and future trips from all types of land uses at the interchange by identifying triggers for improvements as traffic demand warrants them. The triggers are based on overall traffic demand in the interchange area and will be tracked through a system of traffic generation reports from commercial development and by review of projected trip generation based on the ITE Traffic Generation Manual for proposed residential developments outside of the IAMP boundaries. This proposal is consistent with the policies of Goal 10 - Housing.

It should be noted there are approximately 27 acres of "Manufactured Home Park Sub-district" zoned property within the IAMP boundaries. This acreage was calculated in the IAMP traffic projections as "commercial" zoning. This provides a worse case scenario in terms of traffic generation; however, the current zoning does not change with the adoption of the IAMP, even though the property owner has expressed a desire to change this zone in the future and the city supports this desire. A future zone change for this parcel will require a separate land use action and the replacement of residential acreage to meet the 20-year needs for the Manufactured Home Park Sub-District zone prior to any change of zone being finalized.

CHAPTER 11: PUBLIC FACILITIES: Policies #1, #2, #3, #5, #6, #8, #9, #11, #12, #13, #14, #16, and #20 are directly or indirectly related to transportation. The provisions of these policies are met; however, several actions will be required in the near future to ensure that funding is available for the improvements identified in the IAMP. Most of these changes will be related to current efforts being undertaken by the City concerning reconfiguration of the Capital Improvement Plan (CIP) projects list. This reconfiguration of the CIP includes numerous projects which are not currently contained in the Public Facilities Plan, mostly through the addition of projects associated with the IAMP and overall transportation circulation connectivity. The completion of the CIP is an essential element to accurately work out the funding mechanisms to be used for funding improvements associated with the IAMP. The City Council has provided guidelines for the addition of several options to fund transportation improvements, which include systems development charges (SDC's), local improvement districts (LID's), general fund transfers, exactions at the time of development, portions of the transient room tax devoted to transportation, and others to adequately fund future roadway improvements to facilitate the IAMP and overall network connectivity. The city will need to complete this work within a 12 -18 month period to adequately fund all the identified projects in the IAMP. There are currently 109 projects in the CIP of which approximately 35% currently have accurate cost estimates. When these changes are accomplished an additional Post Acknowledgement Plan Amendment to make the required changes to the Public Facilities Plan, the Capital Improvement Plan and the Comprehensive Plan will need to be accomplished.

CHAPTER 11 – PUBLIC FACILITIES COMPREHENSIVE PLAN POLICIES

1. The City shall assure urban services (water, sewer and storm drainage services and transportation infrastructure) to residential, commercial and industrial lands within the City's Urban Growth Area as these lands are urbanized.

2. To minimize the cost of providing public services and infrastructure, the City shall discourage inefficient development without adequate public services and promote efficient use of urban and urbanizable land within the City's urban growth boundary, including requiring all urban development to be served by full urban services.

3. The City shall support development that is compatible with the City's ability to provide adequate public facilities and services.

4. The City shall assure there are adequate sites for solid waste disposal and solid waste collection for the City and Urban Growth Boundary. The service may be provided by private contractors or public entities.

5. The City shall promote coordination among the City, Port of Morrow, and other interested parties to facilitate the most effective uses of public facilities serving the planning area.

6. The City shall prioritize development of land serviced by utilities and require the extension of water, sewer and storm drainage facilities for all urban level development within the UGB.

7. The City shall coordinate provision of public services with annexation of land outside the City limits.

8. The City shall adopt long range master plans for its water, sewer, storm drainage and transportation systems and review and/or update them periodically.

9. The City shall adopt and periodically update the City's Public Facilities Plan for development of public services and facilities in conformance with the policies of the Comprehensive Plan. Significant changes in projected capacity of public facilities required by proposed new development to be served by the City may necessitate update of the Public Facilities Plan.

10. The City shall comply with state and federal regulations for utility systems.

11. The City shall establish and maintain a range of funding mechanisms for building new water, sewer, storm drainage and transportation infrastructure and maintaining existing infrastructure.

12. The City shall monitor the condition of water, sewer, storm drainage and transportation infrastructure and finance regular maintenance of these facilities.

13. The City shall utilize its adopted System Development Charges (SDCs) to finance new water and wastewater infrastructure as allowed by state law, and adjust SDCs to keep them up to date with current costs.

14. The City shall establish and maintain utility rates and user fees that equitably allocate costs for operations and maintenance to users.

15. The City shall maintain an eight (8) year supply of commercial and industrial land that is serviceable by water, sewer, storm drainage and transportation infrastructure.

16. The City will periodically amend the Comprehensive Plan list of public facility projects when implementing plans or agreements are updated.

17. The City shall protect its water supply and enhance groundwater quality and quantity of the City's drinking water supplies by:

- *Establishing wellhead protection measures;*
- *Working with landowners and managers for protection of water sources; and*
- *Adhering to applicable permitting requirements when approving new residential, commercial and industrial development and when constructing new water, sewer, storm drainage transportation infrastructure.*

18. The City shall plan for and establish standards for storm drainage detention and management facilities for management of urban storm runoff as an environmental service, rather than flood control, during periods of heavy rain. In doing so, where feasible, the City will encourage natural storm drainage management techniques, such as modified bio-swales, landscaping, retention ponds and natural drainage ways.

19. The City shall take steps to minimize adverse impacts from construction and other sources of erosion and sedimentation on natural drainage ways and storm drainage facilities.

20. In order to allow for safe, orderly and coordinated development, the City shall adopt utility and transportation design standards and construction specifications as part of its development code.

21. The City will continue to work with the Boardman Rural Fire Protection District in their provision of fire protection services for the City.

22. The City is working (as of 2003) with the Oregon Water Resources Department to complete and obtain approval for, a Water Management and Conservation Plan, pursuant to OAR 690-86. Should the approved Plan include system improvement projects, the Capital Improvements Project list will be updated to reflect these additional projects.

The general provisions of Goal 11 policies are met with this proposed Interchange Area Management Plan. The necessary actions noted above concerning funding mechanisms are currently being pursued for completion. The recommendation is for the City to commit the capital outlay necessary for establishment of SDC's, LID's and other funding mechanisms to ensure that the transportation improvements of the IAMP are available to sustain future growth and development.

CHAPTER 12: TRANSPORTATION:

CHAPTER 12 – TRANSPORTATION COMPREHENSIVE PLAN POLICIES:

1. *The Transportation System Plan is an element of the Boardman Comprehensive Plan (as a Technical Appendix).*
2. *The City of Boardman shall protect the function of existing and planned roadways as identified in the Transportation System Plan.*

3. *The City of Boardman shall include a consideration of land use impacts on existing or planned transportation facilities in all land use decisions.*

4. *The City of Boardman will plan and develop a network of streets, accessways and other improvements, including bikeways, sidewalks, and safe street crossings to promote safe and convenient bicycle and pedestrian circulation within the community.*

5. *Several large properties in the southern portion of Boardman that are categorized in the North Morrow County TGM Project Community Visioning Analysis of Buildable Lands and Housing Needs as having potential for infill have limited access, posing potential problems for future development. In addition, other areas, such as the one south of Kunze Road, are served by unpaved roads that are in very poor condition. A well connected street pattern will be essential for efficient future urban development in these areas both to provide the opportunity for development at more urban densities and to make it possible to travel easily between and among different parts of the community. The City has developed a local street plan, as part of the Transportation System Plan and require development to improve local streets to city standards.*

The approval and adoption of the Boardman Main Street Interchange Area Management Plan is consistent will all of the transportation policies of the Comprehensive Plan. Adoption of the Main Street IAMP will become an element of the City's Transportation System Plan, thereby amending the City's Comprehensive Plan. The IAMP includes a planned local street system south of the Main Street interchanges and other transportation improvements that were developed in response to projected traffic from planned land uses. Bicycle and pedestrian improvements are part of the preferred interchange alternative, including the long-range reconstruction and expansion of the Main Street overpass to accommodate a center left turn lane, bicycle lanes and wider sidewalks.

TRANSPORTATION SYSTEM PLAN POLICIES

The Transportation System Plan (TSP) Policies, contained in Section 7 of the Boardman Transportation System Plan, associated with this proposed Interchange Area Management Plan (IAMP) are as follows; policies of approval process, policies for protection of transportation facilities, policies for coordinated review, and policies for pedestrian and bicycle circulation. Each of these categories has several policies and directives to accomplish the goals of the Transportation System Plan.

POLICIES FOR APPROVAL PROCESS:

- *The Transportation System Plan is an element of the Boardman Comprehensive Plan. It identifies the general location of transportation improvements. Changes in the specific alignment of proposed public road and highway projects that shall be permitted without plan amendment if the new alignment falls within a transportation corridor identified in the Transportation System Plan.*

- *Operation, maintenance, repair, and preservation of existing transportation facilities shall be allowed without land use review, except where specifically regulated.*

- *Dedication of right-of-way, authorization of construction and the construction of facilities and improvements, for improvements designated in the Transportation System Plan, the classification of the roadway and approved road standards shall be allowed without land use review.*

- *Changes in the frequency of transit, rail and airport services that are consistent with the Transportation System Plan shall be allowed without land use review.*

- *For State projects that require an Environmental Impact Study (EIS) or Environmental Assessment (EA), the draft EIS or EA shall serve as the documentation for local land use review, if local review is required.*

Review of this proposal indicates all of the policies for the approval process are met and will be enhanced by the adoption of this Interchange Area Management Plan by the City of Boardman and the Oregon Transportation Commission.

POLICIES FOR PROTECTING EXISTING AND FUTURE OPERATION OF FACILITIES

- *The City of Boardman shall protect the function of existing and planned roadways as identified in the Transportation System Plan.*

- *The City of Boardman shall include a consideration of their impact on existing or planned transportation facilities in all land use decisions.*

- *The City of Boardman shall protect the function of existing or planned roadways or roadway corridors through the application of appropriate land use regulations.*

- *The City of Boardman shall consider the potential to establish or maintain accessways, paths, or trails prior to the vacation of any public easement or right-of-way.*

- *The City of Boardman shall preserve right-of-way for planned transportation facilities through exactions, voluntary dedication, or setbacks.*

The Interchange Area Management Plan is specifically designed to address the policies of protection of existing and future operation of the transportation infrastructure in the vicinity of the Main Street interchange. The IAMP identifies necessary transportation projects and actions to meet the needs of planned land uses within the area, including an enhanced local street network and access management measures to improve safety and operations of the interchange facility and I-84. The steps necessary to implement the improvements, and the "triggers" at which point the traffic demand requires the improvements, are identified in the plan. Upon adoption by the City of Boardman and the Oregon Transportation Commission, the projects and actions in the IAMP will become the blueprint for incremental steps to attain protection of the existing system and enhancement of the future transportation system. All of the City's TSP policies are met in this Interchange Area Management Plan.

POLICIES FOR COORDINATED REVIEW

- *The City of Boardman shall coordinate with the Department of Transportation to implement the highway improvements listed in the Statewide Transportation Improvement Program (STIP) that are consistent with the Transportation System Plan and comprehensive plan.*

- *The City of Boardman shall consider the findings of ODOT's draft Environmental Impact Statements and Environmental Assessments as integral parts of the land use decision-making procedures. Other actions*

required, such as a goal exception or plan amendment, will be combined with review of the draft EA or EIS and land use approval process.

Existing language in the Boardman Development Code provide for the required coordination of traffic reviews by the Department of Transportation. Proposed changes in the language to the Boardman Development Code enhance the notification and coordination between the City of Boardman and Department of Transportation in the review of land use and development proposals within the IAMP Overlay District. Additionally, changes to the language also clarify when updates to the IAMP are necessary.

POLICIES FOR PEDESTRIAN AND BICYCLE CIRCULATION AND ACCESS

- *It is the policy of the City of Boardman to plan and develop a network of streets, accessways, and other improvements, including bikeways, sidewalks, and safe street crossings to promote safe and convenient bicycle and pedestrian circulation within the community.*

- *The City of Boardman shall require streets and accessways where appropriate to provide direct and convenient access to major activity centers, including downtown, schools, shopping areas, and community centers.*

- *In areas of new development the City of Boardman shall investigate the existing and future opportunities for bicycle and pedestrian accessways. Many existing accessways such as user trails established by school children distinguish areas of need and should be incorporated into the transportation system.*

- *Bikeways shall be included on all new arterials and collectors within the Urban Growth Boundary except on limited access freeways.*

- *Retrofitting existing arterials and collectors with bike lanes shall proceed on a prioritized schedule as appropriate and practical (i.e., bike lanes may not be appropriate in downtown core areas where it would require the removal of parking).*

- *Sidewalks shall be included on all new streets within the Urban Growth Boundary except on limited access freeways.*

- *Retrofitting existing streets with sidewalks shall proceed on a prioritized schedule.*

- *Priority shall be given to developing accessways to major activity centers within the Urban Growth Boundary, such as the downtown commercial center, schools, and community centers.*

- *Bikeways and pedestrian accessways shall connect to local and regional travel routes.*

- *Bikeways and pedestrian accessways shall be designed and constructed to minimize potential conflicts between transportation modes. Design and construction of such facilities shall follow the guidelines established by the Oregon Bicycle and Pedestrian Plan.*

- *Maintenance and repair of existing bikeways and pedestrian accessways (including sidewalks) shall be given equal priority to the maintenance and repair of motor vehicle facilities.*

- *Bicycle parking facilities shall be provided at all new residential multifamily developments of four units or more, commercial, industrial, recreational, and institutional facilities.*

- ☐ *A citizens advisory committee shall be established to protect and promote bicycle and pedestrian transportation within the Urban Growth Boundary.*

Existing pedestrian and bicycle circulation and access was evaluated as part of the IAMP planning process and future improvements are part of the preferred interchange alternative. All incremental improvements along with the connective roadways identified in the IAMP are to include provisions for pedestrian and bicycle travel routes. The provisions of pedestrian and bicycle circulation and access polices are met with this proposal.

APPLICABLE STATE GOALS, POLICIES AND RULES

The City is proposing to adopt the Boardman Main Street Interchange Area Management Plan (IAMP) as an element of the City of Boardman Transportation System Plan, thereby amending the state-acknowledged City of Boardman Comprehensive Plan. Findings have been made to demonstrate that the adoption of the Boardman Main Street IAMP is consistent with LCDC's Goals. In addition, an IAMP must be consistent with applicable State transportation goals and policies. Findings of compatibility with the Oregon Transportation Plan and the Oregon Highway Plan, as well as the Administrative Rules that govern transportation planning, will be part of the basis for IAMP approval.

Pertinent State goals and policies for interchange planning are found in Attachment "E" and include findings addressing:

- ☐ Statewide Planning Goals
- ☐ OAR 660 Division 12 Transportation Planning Rule (TPR)
- ☐ OAR 731-015-0065 Coordination Procedures for Adopting Final Facility Plans
- ☐ OAR 734, Division 51. Highway Approaches, Access Control, Spacing Standards and Medians

CONDITIONS OF APPROVAL FOR CONSIDERATION

The following list of items includes possible conditions to be considered by the Planning Commission in their deliberations on the April 2009 Final Report for Boardman Main Street Interchange Area Management Plan.

1) Complete within 12 months the necessary changes to the Public Facilities Plan, Capital Improvement Plan and Chapter 11 of the Boardman Comprehensive Plan to solidify the funding mechanisms necessary to implement the IAMP.

2) Establish transportation funding mechanisms, including transportation systems development charges, consistent with the consensus of the Council developed at the City Council Workshop on Transportation Funding held September 20, 2008.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Boardman Main Street Interchange Area Management Plan has been open to public input and has been thoughtfully crafted by the consultants, the Boardman Steering Committee,

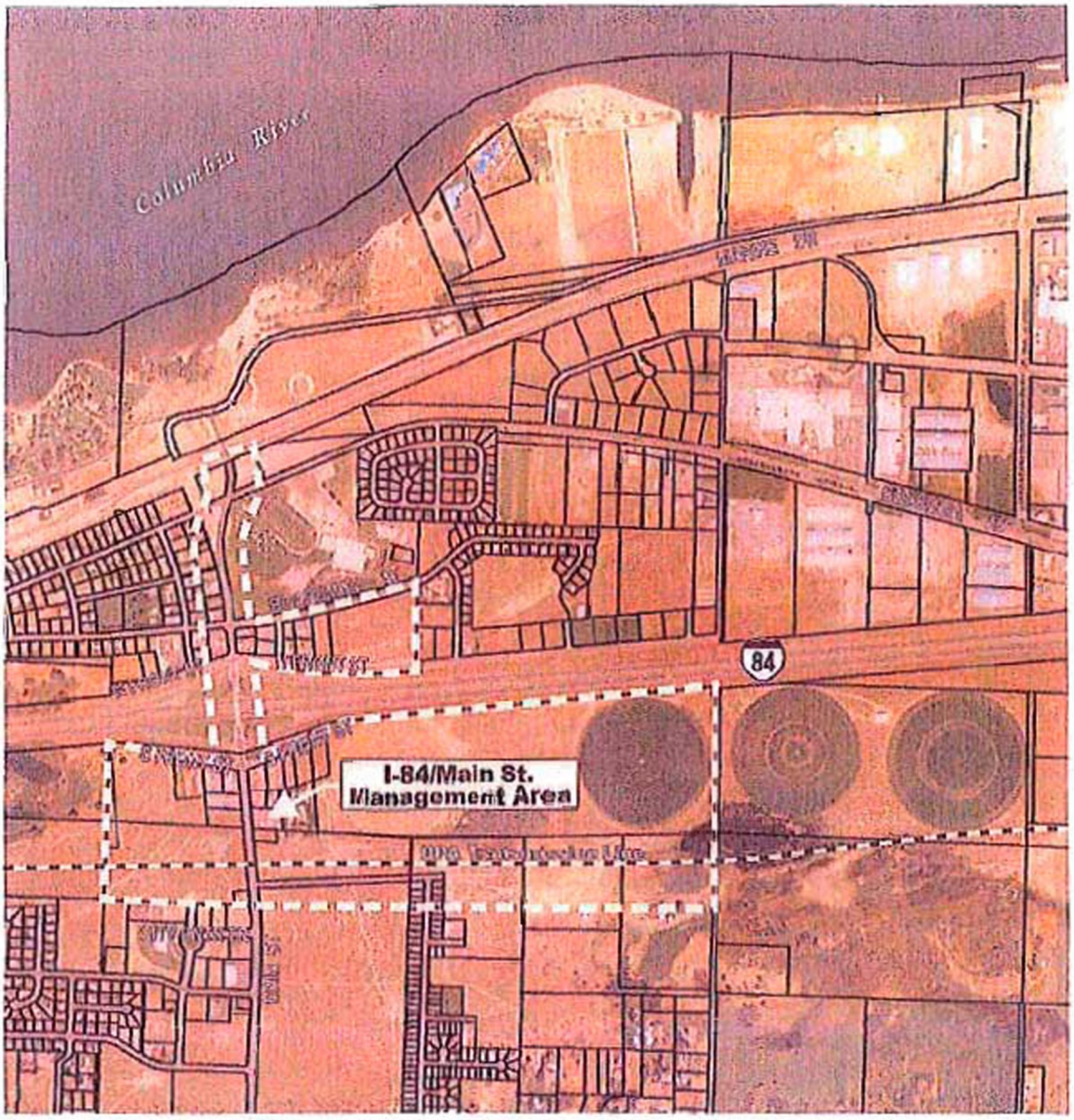
the Oregon Department of Transportation, the Oregon Department of Land Conservation and Development and Boardman staff. The IAMP provides a blueprint to assuring transportation improvements are accomplished commensurate with traffic demand created by development.

Staff recommends, and the Planning Commission recommends the City Council approve the April, 2009, Final Report for the Boardman Main Street Interchange Area Management Plan, including the amendments to Chapter 5 of the IAMP (see Attachment "E") and revised Figures 5.5 and 5.6, and the implementation measures included in the associated code amendments (see Attachments "B," "C," and "D"),. The Planning Commission further recommends the Boardman City Council to adopt the plan through an Implementing ordinance which includes the following conditions:

1) Complete within 12 months the necessary changes to the Public Facilities Plan, Capital Improvement Plan and Chapter 11 of the Boardman Comprehensive Plan to solidify the funding mechanisms necessary to implement the IAMP.

2) Establish transportation funding mechanisms, including transportation systems development charges, consistent with the consensus of the Council developed at the City Council Workshop on Transportation Funding held September 20, 2008.

ATTACHMENT "A"



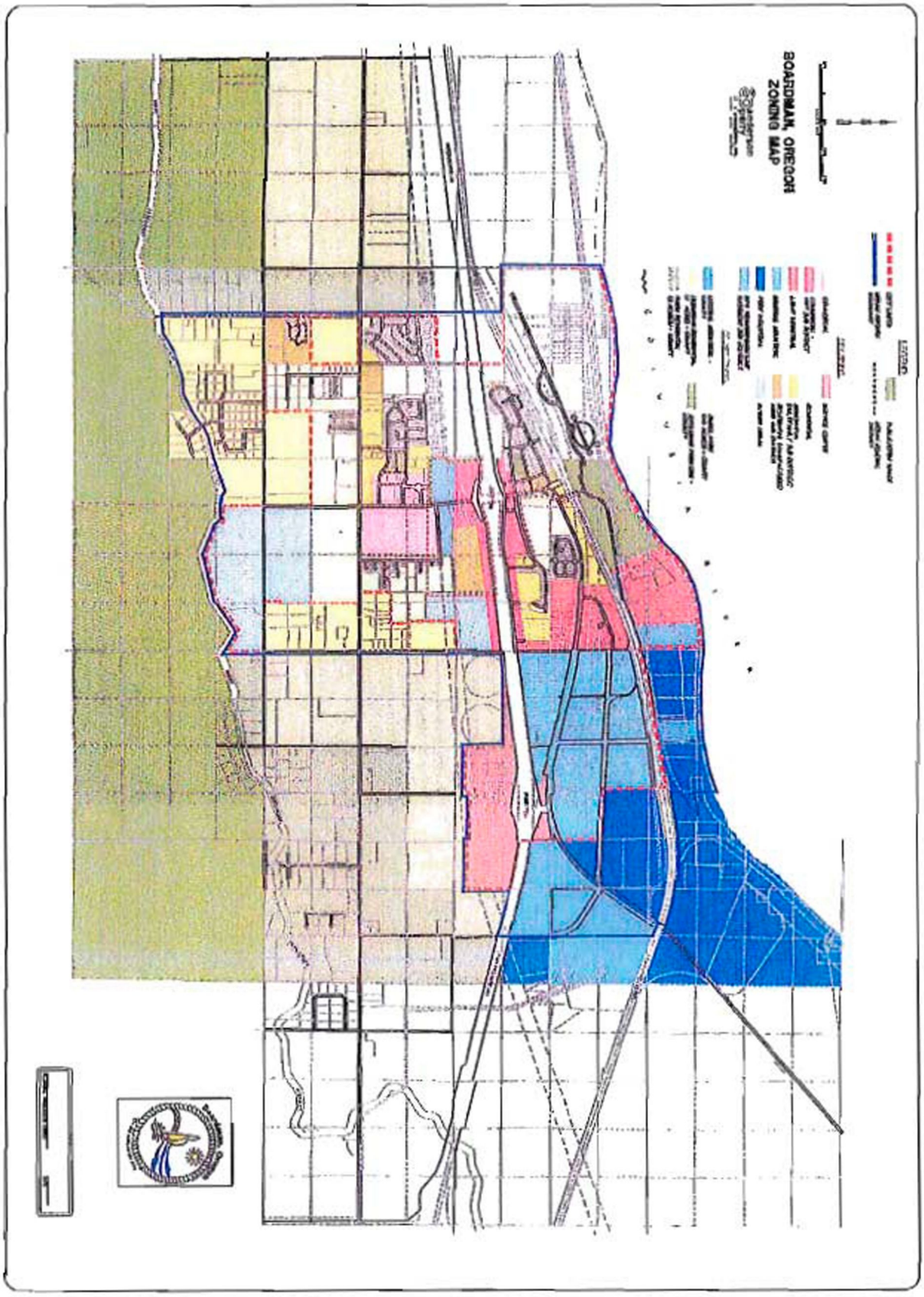
City of Boardman Main Street IAMP
April 2009

Figure 3.1
STUDY AREA

NO SCALE

DKS Associates
TRANSPORTATION SOLUTIONS

ATTACHMENT "A-1"



Attachment "B"

Chapter 2.5 - Interchange Area Management Plan (IAMP) Overlay District

Sections:

2.5.100 Purpose

The purpose of the IAMP Overlay District is the long-range preservation of operational efficiency and safety of the Main Street Interchange that provides access from and to Interstate 84 through the City of Boardman. The Main Street Interchange is a vital link for regional travel and it provides a connection between the two sides of the community. Preserving capacity and ensuring safety of this interchange is essential to existing businesses and residents in the western parts of the city and to the continued economic and community growth and development in the vicinity of Main Street and the interchange.

2.5.110 Boundary of the IAMP Overlay District

The boundary of the IAMP Overlay District is shown on the Boardman Comprehensive Plan and Zoning Map.

2.5.120 Applicability

The provisions of Chapter 2.5 shall apply to all Type II, III and IV land use applications for parcels wholly or partially within the IAMP Overlay District, as defined by Section 2.5.110. Any conflict between the standards of the IAMP Overlay District and those contained within other chapters of the Development Code shall be resolved in favor of the IAMP Overlay District.

For Discussion: Pursuant to this proposed code section all applications, with the exception of Type I decisions, would be subject to the requirements of the new Overlay District. Type II procedures are administrative, with decisions made by City staff with public notice and are appealable to Planning Commission; Type III and Type IV decisions require public hearing. According to code requirements, ODOT receives notice of all Type II, III and IV land use applications.

2.5.130 Permitted Land Uses

Uses allowed in the underlying zoning districts are allowed subject to other applicable provisions in the City of Boardman Development Code and Chapter 2.5.

2.5.140 Access Management

In addition to the standards and requirements of Chapter 3.1 Access and Circulation, parcels wholly or partially within the IAMP Overlay District are governed by the Access Management Plan in the Boardman Main Street Interchange Area Management Plan. The following applies to land use and development applications subject to Chapter 2.5.

A. **Access Permit.**
   1. Access to public streets within the IAMP Overlay District requires an Access Permit in accordance with Chapter 3.1. An Access Permit is required as part of subdivision approval (Chapter 4.3) and approval of land use and zoning amendments (Chapter 4.7).
   2. Development and redevelopment of tax lots that are identified in the Access Management Plan (see Table 5.1 and Figures 5.4, 5.5, and 5.6 in the Boardman Main Street Interchange Area Management Plan) require an Access Permit if one or more of the following applies:
      a. Proposed building improvements are greater than or equal to 50% of the assessed value of the existing built improvements.
      b. Proposed building improvements are expected to generate up to or greater than 25 average daily trips.
      c. A change in use is proposed.
   3. Permits for access to City streets within the IAMP Overlay District shall be subject to joint review by the City and the Oregon Department of Transportation (ODOT). Coordination of this review will occur pursuant to Section 2.5.150.C.
   4. Approval of an access permit is a Type I decision and is based on the standards contained in this Chapter, the provisions of Chapter 3.4.100 Transportation Standards, and the Access Management Plan in the Boardman Main Street Interchange Area Management Plan. Where the recommendations of the Access Management Plan conflict with other access and spacing requirements in Chapter 3.1 of the Development Code, the Access Management Plan shall govern.

For Discussion: Currently, all development within the City is required to go though either a Site Review (discretionary) or Development Review (non-discretionary or "ministerial") procedure. Site Design Review requires compliance with Chapter 3.1 Access and Circulation, but Development Review does not. The language proposed here would establish the City's authority to require access consolidation and closure in the IAMP Overlay District for development and redevelopment projects that require only Development Review.

Requiring an access permit is consistent with existing requirements in Chapter 3.1, with the added specification that ODOT will review the proposal.

B. **Cross access easements.**
   1. Prior to approving access permits for tax lots that are identified in the Access Management Plan (see Table 5.1 and, Figures 5.4, 5.5, and 5.6 in the Boardman Main Street Interchange Area Management Plan), the City shall require that:
      a. The applicant demonstrate how cross access can be accomplished for sites contiguous to the subject property or properties, consistent with the circulation and planned local street network shown in the Interchange Area Management Plan;
      b. If access across an adjacent parcel or parcels is necessary for the development of the subject site, a signed cross access agreement is submitted with the application; and,

c. For applications reviewed as part of a subdivision approval process, necessary cross access easements are shown and recorded on the final plat. Access widths shall be a minimum of 10 feet of width for every travel lane and shall not exceed 30 feet.

For Discussion: This proposed language requires that an applicant demonstrate that a proposed development project within the Overlay District will not preclude any necessary cross access to adjacent parcels and that, if the proposed development relies on cross access, a signed agreement is part of the development proposal. A cross access easement would only be required if the subject site were being subdivided.

C. Access Management Plan Modifications.

Recommended actions in the Access Management Plan are based on property configurations and ownership existing at the time of the Boardman Main Street Interchange Area Management Plan's adoption. Lot consolidation and other land use actions may necessitate an amendment to the Access Management Plan. Modifications to the Access Management Plan:

1. May occur through agreement by the City of Boardman and ODOT and require an amendment to the Boardman Main Street Interchange Area Management Plan; and
2. Will only be allowed if the proposed modifications meet, or move in the direction of meeting, the adopted access management spacing requirements in the Boardman Main Street Interchange Area Management Plan.

For Discussion: This proposed language mirrors language in the draft IAMP (Chapter 5).

2.5.150 Administration

Section 2.5.150 delineates the responsibilities of the City and ODOT to monitor and evaluate vehicle trip generation impacts on the Boardman Main Street Interchange in Boardman from development approval under this section. Notwithstanding Chapter 4.10.200.A, an application for development within the IAMP Overlay District will not generally require detailed traffic analysis (i.e. a Traffic Impact Study) because the Boardman Main Street Interchange Area Management Plan (IAMP) has already established the transportation plan. Section A describes the Traffic Generation Report, the level of transportation analysis that is generally required. Section B defines conditions under which a more detailed Traffic Impact Study is required.

A. Traffic Generation Report. A Traffic Generation Report is required for development proposals within the IAMP Overlay District to demonstrate consistency with the assumptions of the Boardman Main Street Interchange Area Management Plan.

1. All applications for development within the IAMP Overlay District must be accompanied by information about the amount of proposed development in sufficient detail to allow the City to prepare a Traffic Generation Report that estimates the motor vehicle traffic that will enter and exit the site.
2. In addition, an applicant may elect to prepare and submit their own Traffic Generation Report; however, the City retains discretion to accept the applicant's Traffic Generation Report or use the Traffic Generation Report prepared by the City.
3. Trip Generation Reports may assume a trip reduction factor to account for multiple stops made by a single vehicle only if the proposed use is consistent with the specific land use assumptions in the IAMP. Specifically, the following reductions for the following types of uses may be

taken after using conventional techniques to estimate trips based on the size of the development:
   a. Convenience Store -- 60%
   b. Fast Food – 43%
   c. Retail – 35%
   d. Gas Station – 27%
4. When a proposed development includes more than one use, trip reduction factors consistent with the ITE Trip Generation Manual shall be applied separately to each use, and those separate estimates shall be added to calculate the total for the development.
5. The City shall keep a record of all Traffic Generation Reports and use them to calculate the total of new trips within the IAMP Overlay District for use in evaluating the conditions that may necessitate an IAMP update (see Section 2.5.170)

B. **Traffic Impact Study.** A Traffic Impact Study prepared in accordance with Chapter 4.10 is required for the following:
1. Proposals that include a zone change or a comprehensive plan amendment that results in an increase of 10% or greater in PM peak hour traffic than the current zoning.
2. Proposals submitted when ramp terminals are operating above 0.75 volume to capacity, as measured in the most recent traffic counts performed by ODOT or the City, or the proposal would generate traffic exceeding this threshold.
3. Proposals submitted to the city during a legislative update of the Boardman Main Street Interchange Area Management Plan pursuant to Section 2.5.170.

For Discussion: Currently, the city requires a TIS for "any proposed development or land use action that ODOT states may have operational or safety concerns along a state highway," regardless of where the property is located within the city (Chapter 4.10 – Traffic Impact Study). The existing requirements of a TIS are well documented in Chapter 4.10.

A proposed amendment to Chapter 4.10 clarifies that the City has the discretion to determine the required elements of the TIS and the level of analysis expected. In this way, the complexity of the analysis can match the expected impact of a proposal, thereby minimizing the expense for smaller development proposals. The parameters of a required TIS would be discussed during a meeting with City staff prior to the submittal of an application.

As proposed here, only a traffic generation report would be required for those properties expected to develop pursuant to Figure 4.1 in the draft IAMP. The trip reduction factors in Subsection A.3. are from the IAMP; code language specifies that these reductions are only allowed if proposed uses are the same as those assumed in Figure 4.1. In addition, subsection A.4 allows trip reduction factors for multiple uses as part of a single development, as calculated using the ITE Trip Generation Manual, but not necessarily anticipated by the IAMP.

The draft IAMP states that development "that is not consistent with the current zoning (and generates over 10% PM peak hour traffic than the current zoning) will need to complete a traffic study and amend this IAMP." The proposed code language in B.1 is consistent with the IAMP. Subsection B.2 is proposed in order to require more information from the applicant during a time period in which the ramp terminals are approaching failure. The v/c standard for the Main Street I-84 ramps is 0.85; the Steering Committee members advised using a more conservative threshold in the City's code order to better manage the transportation conditions in the district and to begin to prepare for an IAMP update, as required in proposed Section 2.5.170.

C. Land Use Review Coordination.

1. The City shall not deem the land use application complete unless it includes a Traffic Generation Report or, if required by Section 2.5.150.B, a Transportation Impact Study prepared in accordance with Chapter 4.10 and the requirements of this Chapter.
2. The City shall provide written notification to ODOT when the application is deemed complete pursuant to 4.1.700. This notice shall include an invitation to ODOT to participate in the City's site team review meeting.
3. ODOT shall have at least 20 days, measured from the date completion notice was mailed, to provide written comments to the City. If ODOT does not provide written comments during this 20-day period, the City staff report will be issued without consideration of ODOT comments.

For Discussion: Pursuant to the procedures section of the code (Chapter 4.1), the City currently notices ODOT of all Type II, III, and IV applications and requires coordinated review between the city, ODOT and other applicable County, State and federal review agencies. The proposed section above refines required coordination with ODOT for the benefit of applicants within the IAMP Overlay District.

2.5.160 Comprehensive Plan and Zoning Map Amendments

This section applies to all Comprehensive Plan Map and Zoning Map amendments to parcels wholly or partially within the IAMP Overlay District.

A. IAMP Amendment. The Boardman Main Street Interchange IAMP must be amended if the following applies:

1. If a proposed land use is inconsistent with the current land use zoning and is anticipated to increase PM peak hour traffic by more than 10%, the applicant will be required to undertake a legislative amendment to amend and update the Boardman Main Street Interchange Area Management Plan in order to demonstrate that the proposed amendment will be consistent with the planned improvements in the Overlay District. In such cases, the applicant will supply information to amend the IAMP that includes:
   a. Documentation of additional trips generated by the subject site that are not anticipated in the IAMP.
   b. Findings of consistency with the IAMP that either show how the planned improvements in the IAMP are sufficient to support the proposal, or identify additional necessary transportation improvements to bring the proposed land use action into conformance with the IAMP.

B. Transportation Planning Rule Requirements.

Applications for Comprehensive Plan amendments, Zoning Map amendments, or development regulation amendments shall determine whether the proposed change will significantly affect a collector or arterial transportation facility and must meet the requirements of Oregon Administrative Rule (OAR) 660-012-0060 and Section 4.7.600 of this Development Code.

For Discussion: Subsection "A.1" above mirrors language in the draft IAMP; "a." and "b." clarify what would be required as part of an applicant-initiated update, with the implication that a comprehensive update of the entire IAMP document would not be necessary. Subsection "B' is a cross reference to Chapter 4.7 and the requirements for map and text amendments.

2.5.170 Updating the Interchange Area Management Plan

The city shall initiate an update of the IAMP when the total of new peak hour trips from development within the IAMP Overlay District (as estimated by Trip Generation Reports required under 2.5. 150) exceeds Peak Hour Trip Generation of 530 trips (which is approximately 85% of the trips assumed within the IAMP boundaries). Development proposals that are submitted during the period in which the IAMP is being updated, or that are expected to generate traffic that exceeds the identified threshold, are required to include a Traffic Impact Study, pursuant to 2.5.150.B.

For Discussion: This section addresses the need to have a trigger in the code and the draft IAMP that initiates a comprehensive review of the impacts of cumulative traffic and the timing of the improvements that are currently listed as needed in the "long term." The revised draft IAMP includes the procedures by which ODOT and the city would follow for updates initiated either by an applicant (Section 2.5.160) or the city (Section 2.5.170).

Attachment "C"

Chapter 3.1 - Access and Circulation

Sections:

3.1.100 Purpose

The purpose of this chapter is to help insure that developments provide safe and efficient access and circulation, for pedestrians and vehicles. Section 3.1.200 provides standards for vehicular access and circulation. Section 3.1.300 provides standards for pedestrian access and circulation. Standards for transportation improvements are provided in Chapter 3.4.100.

3.1.200 Vehicular Access and Circulation

A. **Intent and Purpose.** The intent of this Section is to manage vehicle access to development through a connected street system, while preserving the flow of traffic in terms of safety, roadway capacity, and efficiency. Access shall be managed to maintain adequate performance standards and to maintain the "functional classification" of roadways as required by the City's Comprehensive Plan. Major roadways, including highways, arterials, and collectors, serve as the primary system for moving people and goods. "Access management" is a primary concern on these roads. Local streets and alleys provide access to individual properties. If vehicular access and circulation are not properly designed, these roadways will be unable to accommodate the needs of development and serve their transportation function. This Section attempts to balance the right of reasonable access to private property with the right of the citizens of the City and the State of Oregon to safe and efficient travel. It also requires developments to construct planned streets (arterials and collectors) and to extend local streets.

   To achieve this policy intent, state and local roadways have been categorized in the Comprehensive Plan by function and classified for access purposes based upon their level of importance and function. (See Chapter 3.4.100.) Regulations have been applied to these roadways for the purpose of reducing traffic accidents, personal injury, and property damage attributable to access systems, and to thereby improve the safety and operation of the roadway network. This will protect the substantial public investment in the existing transportation system and reduce the need for expensive remedial measures. These regulations also further the orderly layout and use of land, protect community character, and conserve natural resources by promoting well-designed road and access systems and discouraging the unplanned subdivision of land.

B. **Applicability.** This ordinance shall apply to all public streets within the City and to all properties that abut these streets.

3.1.200 - Vehicular Access and Circulation *(continued)*

C. Access Permit Required. Access to a public street requires an Access Permit in accordance with the following procedures:

1. City Street Permits. Permits for access to City streets shall be subject to review and approval by the City Manager or his/her designee based on the standards contained in this Chapter, and the provisions of Chapter 3.4.100 - Transportation Standards. An access permit may be in the form of a letter to the applicant, or it may be attached to a land use decision notice as a condition of approval.

2. State Highway Permits. Permits for access to State highways shall be subject to review and approval by the Oregon Department of Transportation (ODOT), except when ODOT has delegated this responsibility to the City or Morrow County. In that case, the City or County shall determine whether access is granted based on its adopted standards.

3. County Highway Permits. Permits for access to County highways shall be subject to review and approval by Morrow County, except where the County has delegated this responsibility to the City, in which case the City shall determine whether access is granted based on adopted County standards.

D. Traffic Study Requirements. The City or other agency with access jurisdiction may require a traffic study prepared by a qualified professional to determine access, circulation and other transportation requirements. (See also, Section 3.4.100 - Transportation Standards, and Chapter 4.10.)

E. Conditions of Approval. The City or other agency with access permit jurisdiction may require the closing or consolidation of existing curb cuts or other vehicle access points, recording of reciprocal access easements (i.e., for shared driveways), development of a frontage street, installation of traffic control devices, and/or other mitigation as a condition of granting an access permit, to ensure the safe and efficient operation of the street and highway system. To obtain access to and from off-street parking areas shall not require the driver to back-out onto a public street (except for single-family, two-family, and three-family dwellings).

F. Access Options. When vehicle access is required for development (i.e., for off-street parking, delivery, service, drive-through facilities, etc.), access shall be provided by one of the following methods. These methods are "options" to the developer/subdivider, unless one method is specifically required by Chapter 2 (i.e., under "Special Standards for Certain Uses"). A minimum of 10 feet per lane is required.

1. Option 1. Access is from an existing or proposed alley or mid-block lane. If a property has access to an alley or lane, direct access to a public street is not permitted.

3.1.200 - Vehicular Access and Circulation *(continued)*

2. Option 2. Access is from a private street or driveway connected to an adjoining property that has direct access to a public street (i.e., "shared driveway"). A public access easement covering the driveway shall be recorded in this case to assure access to the closest public street for all users of the private street/drive.

3. Option 3. Access is from a public street adjacent to the development parcel. If practicable, the owner/developer may be required to close or consolidate an existing access point as a condition of approving a new access. Street accesses shall comply with the access spacing standards in Section G, below.

4. Subdivisions Fronting On an Arterial Street. New residential land divisions fronting on an arterial street shall be required to provide alleys or secondary (local or collector) streets for access to individual lots. When alleys or secondary streets cannot be constructed due to topographic or other physical constraints or existing development patterns access may be provided by consolidating front-access driveways for clusters of two or more lots (e.g., includes flag lots and mid-block lanes).

5. Double-Frontage Lots. When a lot has frontage onto two or more streets, access shall be provided first from the street with the lowest classification. For example, access shall be provided from a local street before a collector or arterial street. Except for corner lots, the creation of new double-frontage lots shall be prohibited in the Residential District, unless topographic or physical constraints or existing development patterns require the formation of such lots. When double-frontage lots are permitted in the Residential District, a landscape buffer with trees and/or shrubs and ground cover not less than 15 feet wide shall be provided between the back yard fence/wall and the sidewalk or street; maintenance shall be assured by the owner (i.e., through homeowner's association, etc.).

Important cross-references to other code sections: Chapters 2 and 3 may require buildings placed at or near the front property line and driveways and parking areas oriented to the side or rear yard. The City may require the dedication of public right-of-way and construction of a street (e.g., frontage road, alley or other street) when the development impact is proportionate to the need for such a street, and the street is identified by the Comprehensive Plan or an adopted Local Streets Plan. (Please refer to Section 3.4.100 - Transportation Standards.)

G. Access Spacing. Driveway accesses shall be separated from other driveways and street intersections in accordance with the following standards and procedures:

1. Local Streets. The minimum feet of separation on local streets (as measured from the sides of the driveway/street) shall be determined based on the policies and standards contained in Table 3.1.200 G except as provided in subsection 3, below.

2. Arterial and Collector Streets. Access spacing on collector and arterial streets and at controlled intersections (i.e., with four-way stop sign or traffic signal) shall be determined by the policies and standards in Table 3.1.200 G.

3.1.200 - Vehicular Access and Circulation *(continued)*

3. Access to State Highways and Interchanges. Access to a transportation facility under the jurisdiction of the Oregon Department of Transportation (ODOT) shall be subject to the applicable ~~standards and~~ policies contained in the Oregon Highway Plan and the requirements of OAR 734-051. ~~Interstate Highway 84 Corridor Plan.~~ See Table 9A and Table 9 in the Transportation System Plan (TSP).

For Discussion: Proposed modifications clarify that access to the interchanges in Boardman is also under the jurisdiction of ODOT.

4. Special Provisions for All Streets. Direct street access may be restricted for some land uses, in conformance with the provisions of Chapter 2 - Land Use Districts. For example, access consolidation, shared access, and/or access separation greater than that specified by subsections 1-2, may be required by the permitting agency for the purpose of protecting the function, safety and operation of the street for all users. (See Section 'I', below.) Where no other alternatives exist, the permitting agency may allow construction of an access connection along the property line farthest from an intersection. In such cases, directional connections (i.e., right in/out, right in only, or right out only) may be required.

5. Corner Clearance. The distance from a street intersection to a driveway or other street access shall meet or exceed the minimum spacing requirements for the street classification in the City's Transportation System Plan.

6. Variance. A variance to vehicle access and circulation standards shall follow procedures in Chapter 5.1.300.A.

Table 3.1.200 G
Minimum Intersection Spacing Standards

Street Type	Public Street	Private Drive
Arterial	600 feet	300 feet
Collector	300 feet	75 feet
Neighborhood Collector	200 feet	50 feet
Local	150 feet	15 feet

This table identifies the minimum public street intersection and private access spacing standards for the City of Boardman roadway network as they relate to new development and redevelopment. Source: City of Boardman, Transportation System Plan, 2001.

H. Number of Access Points. For single-family (detached and attached), two-family, and three-family housing types, one street access point is permitted per lot; except that two access points may be permitted for two-family and three-family housing on corner lots (i.e., no more than one access per street), subject to the access spacing standards in Section 'G', above. The number of street access points for multiple family, commercial, industrial, and public/institutional developments shall be minimized to protect the function, safety and operation of the street(s) and sidewalk(s) for all users. Shared access may be required, in conformance with Section I, below, in order to maintain the required access spacing, and minimize the number of access points.

3.1.200 - Vehicular Access and Circulation *(continued)*

I. **Shared Driveways.** Where feasible, the number of driveway and private street accesses to public streets shall be minimized for commercial and industrial uses by the sharing of driveways between adjoining parcels. The City shall require shared driveways as a condition of land division or site design review for commercial and industrial uses, as applicable, for traffic safety and access management purposes in accordance with the following standards:

1. Shared driveways and frontage streets may be required to consolidate access onto a collector or arterial street. When shared driveways or frontage streets are required, they shall be stubbed to adjacent developable parcels to indicate future extension. "Stub" means that a driveway or street temporarily ends at the property line, but may be extended in the future as the adjacent parcel develops. "Developable" means that a parcel is either vacant or it is likely to receive additional development (i.e., due to infill or redevelopment potential).

2. Access easements for the benefit of affected properties shall be recorded for all shared driveways, including pathways, at the time of final plat approval (Chapter 4.3) or as a condition of site development approval (Chapter 4.2).

3. Exception. Shared driveways are not required when existing development patterns or physical constraints (e.g., topography, parcel configuration, existing development or similar conditions) prevent extending the street/driveway in the future.

4. Cross Access. Cross access is encouraged, and may be required as a condition of approval between contiguous sites in the Commercial and Industrial Districts and for multi-family housing in the Residential Multi-family Sub District of the Residential District, in order to provide for more direct circulation between sites and uses for pedestrians, bicycles and drivers. Cross access agreements may also be a requirement of land use or development approval for parcels within the Interchange Area Management Plan Overlay District, pursuant to Section 2.5.140.

For Discussion: This proposed cross reference clarifies that cross access agreements may be required if the proposal is within the IAMP Overlay District.

J. **Street Connectivity.** In order to promote efficient vehicular and pedestrian circulation throughout the City, land divisions and large site developments shall produce complete blocks bounded by a connecting network of public and/or private streets, in accordance with the following standards:

1. Block Length and Perimeter. The maximum block length and perimeter shall not exceed:

   a. 600 feet length and 1,600 feet perimeter in the Residential District and Sub Districts;

   b. 600 feet length and 1,600 feet perimeter in the Commercial District;

   c. Not applicable to the General Industrial District;

   d. 800 feet length and 2,000 feet perimeter in the Tourist Commercial Sub District, Service Center Sub District and Light Industrial District, except as required for commercial developments subject to Chapter 2.2, Section 140;

2. Street Standards. Public and private streets shall also conform to Chapter 3.4.100 - Transportation Standards, Section 3.1.300 - Pedestrian Circulation, and applicable Americans With Disabilities Act (ADA) design standards.

3.1.200 - Vehicular Access and Circulation *(continued)*

3. Exception. Exceptions to the above standards may be granted when blocks are divided by one or more pathway(s), in conformance with the provisions of Section 3.1.300.A. Pathways shall be located to minimize out-of-direction travel by pedestrians and may be designed to accommodate bicycles. An exception may also be granted for topography, natural resources, existing development or other permanent features such as Interstates and railroad track right-of-ways.

K. Driveway Openings. Driveway openings [or curb cuts] shall be the minimum width necessary to provide the required number of vehicle travel lanes (10 feet for each travel lane). The following standards (i.e., as measured where the front property line meets the sidewalk or right-of-way) are required to provide adequate site access, minimize surface water runoff, and avoid conflicts between vehicles and pedestrians:

1. Single family, two-family, and three-family uses shall have a minimum driveway width of 10 feet, and a maximum width of 24 feet, (except that one recreational vehicle pad driveway may be provided in addition to the standard driveway for each lot.

2. Multiple family uses with 4 to 7 dwelling units shall have a minimum driveway width of 20 feet, and a maximum width of 24 feet.

3. Multiple family uses with more than 8 dwelling units, and off-street parking areas with 16 or more parking spaces, shall have a minimum driveway width of 24 feet, and a maximum width of 30 feet. These dimensions may be increased if the City Manager or his/her designee determines that more than two lanes are required based on the number of trips generated or the need for turning lanes.

4. Access widths for all other uses shall be based on 10 feet of width for every travel lane, except that driveways providing direct access to parking spaces shall conform to the parking area standards in Chapter 3.3.

5. Driveway Aprons. Driveway aprons (when required) shall be constructed of concrete and shall be installed between the street right-of-way and the private drive, as shown in Figure 3.1.200K. Driveway aprons shall conform to Americans with Disabilities Act (ADA) standards for sidewalks and pathways, which require a continuous route of travel that is a minimum of 3 feet in width, with a cross slope not exceeding 2 percent.

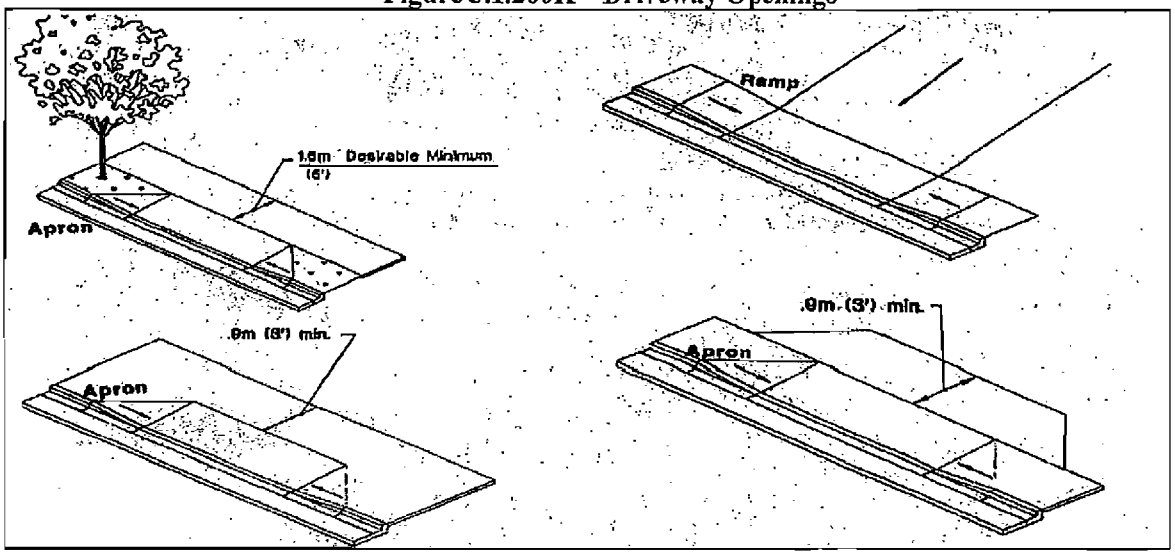
6. Driveway approaches. Driveway approaches shall be designed and located to provide an existing vehicle with an unobstructed view. Construction of driveways along acceleration or deceleration lanes or tapers should be avoided due to the potential for vehicle conflicts.

7. Loading area design. The design of driveways and on-site maneuvering and loading areas for commercial and industrial developments shall consider the anticipated storage length

for entering and exiting vehicles to prevent vehicles from backing into the flow of traffic on the public street or causing unsafe conflicts with on-site circulation.

3.1.200 - Vehicular Access and Circulation *(continued)*

Figure 3.1.200K – Driveway Openings



L. **Fire Access and Parking Area Turn-around.** A fire equipment access drive shall be provided for any portion of an exterior wall of the first story of a building that is located more than 150 feet from an existing public street or approved fire equipment access drive. Parking areas shall provide adequate aisles or turn-around areas for service and delivery vehicles so that all vehicles may enter the street in a forward manner. For requirements related to cul-de-sacs or dead-end streets, please refer to Section 3.4.100.M.

M. **Vertical Clearances.** Driveways, private streets, aisles, turn-around areas and ramps shall have a minimum vertical clearance of 13' 6 " for their entire length and width.

N. **Vision Clearance.** No signs, structures or vegetation in excess of three feet in height shall be placed in "vision clearance areas", as shown in Figure 3.1.200N. This standard applies to the following types of roadways: streets, driveways, alleyways and railways. The minimum vision clearance area may be increased by the City Manager or his/her designee upon finding that more sight distance is required (i.e., due to traffic speeds, roadway alignment, etc.). An exception to this standard may be granted by the City Manager or his/her designee to allow utility structures (such as electrical transformers) for necessary services. This exception does not include the installation of utility poles.

O. **Construction.** The following development and maintenance standards shall apply to all driveways and private streets.

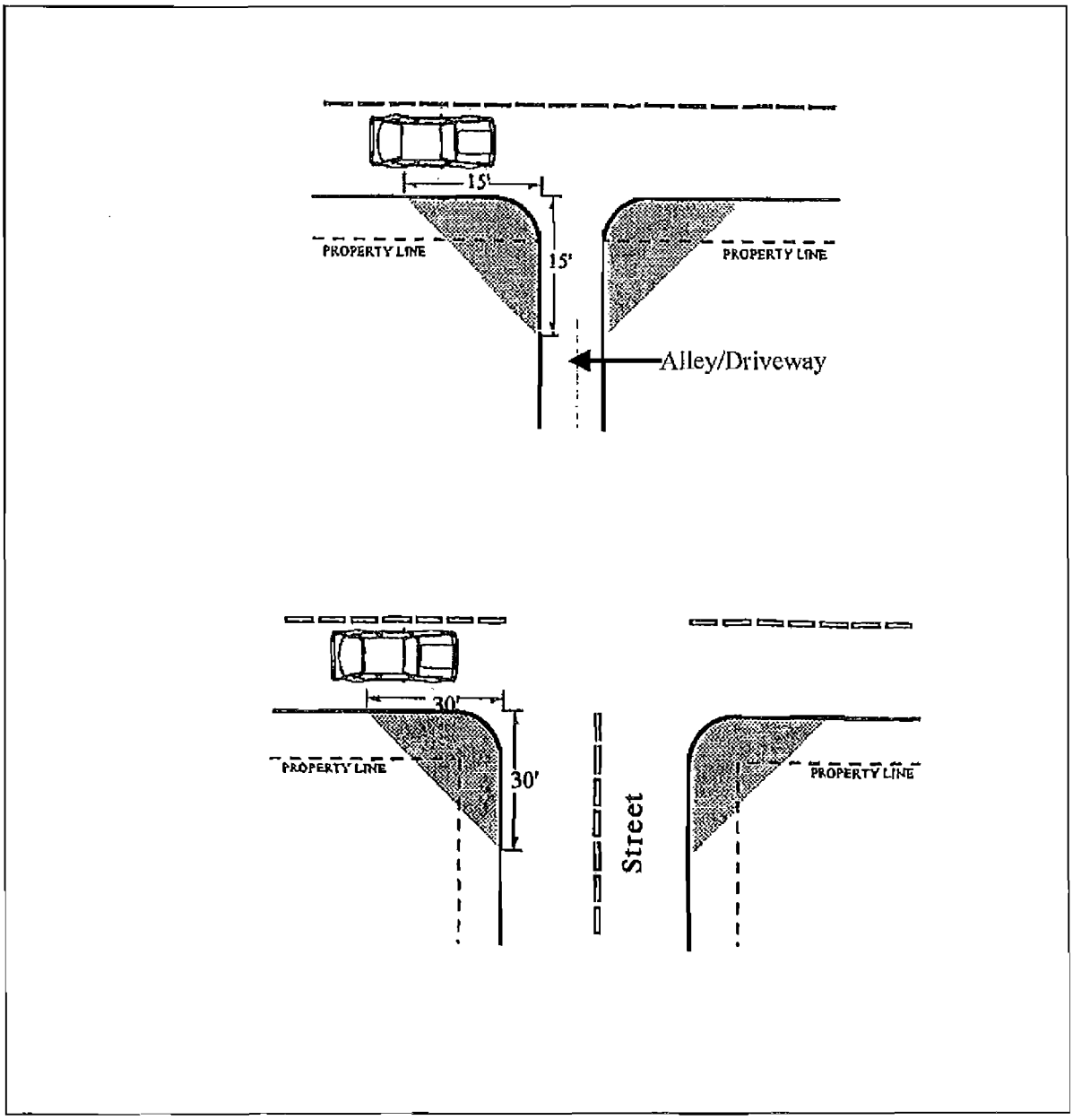
1. Surface Options. Driveways, parking areas, aisles, and turn-arounds may be paved with asphalt, concrete or comparable surfacing, or a durable non-paving material may be used to reduce surface water runoff and protect water quality. Paving surfaces shall be subject to review and approval by the City Manager or his/her designee.

3.1.200 - Vehicular Access and Circulation *(continued)*

3. Surface Water Management. Surface water facilities shall be constructed in conformance with City standards. See Section 3.2 for Landscaping standards or the City's Stormwater Management Standards in Section 3.5.

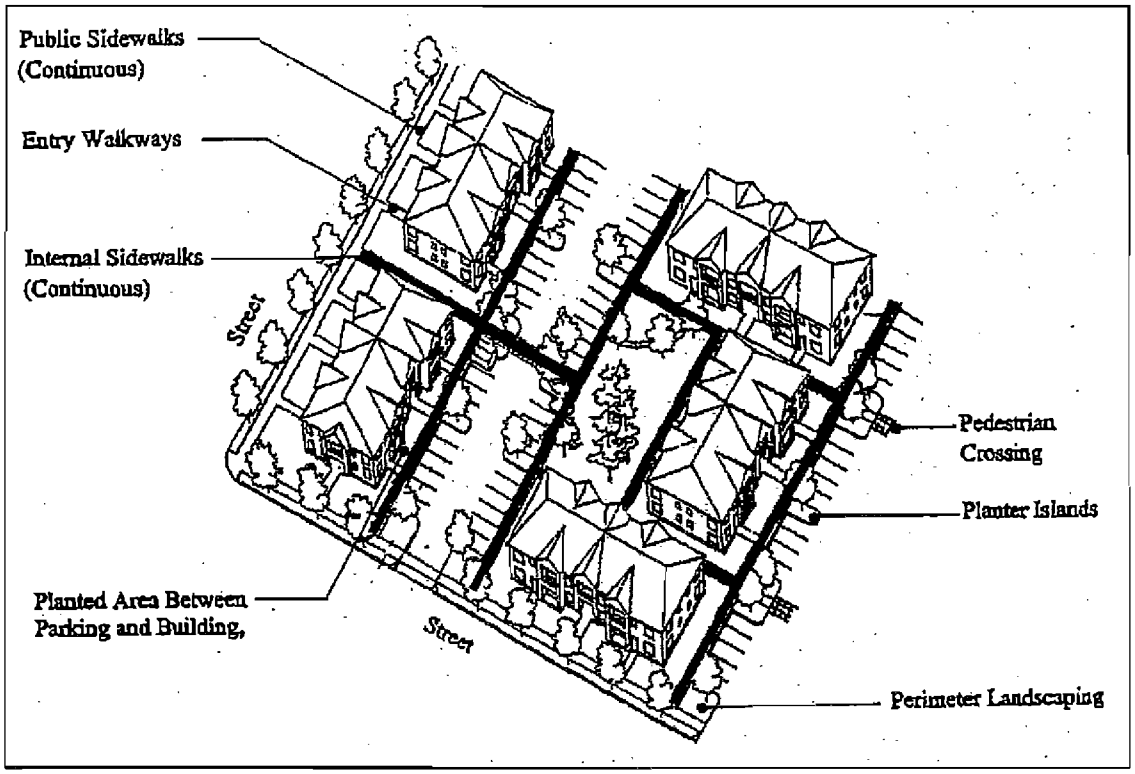
4. Driveway Aprons. When driveway approaches or "aprons" are required to connect driveways to the public right-of-way, they shall be paved with concrete surfacing. (See Section K above.)

Figure 3.1.200N -- Vision Clearance Area



3.1.300 – Pedestrian Access and Circulation

Pedestrian System for Multi-Family Development
Figure 3.1.300A



A. **Pedestrian Access and Circulation.** To ensure safe, direct and convenient pedestrian circulation, all developments, except single family detached housing (i.e., on individual lots), shall provide a continuous pedestrian and/or multi-use pathway system. (Pathways only provide for pedestrian circulation. Multi-use pathways accommodate pedestrians and bicycles.) The system of pathways shall be designed based on the standards in subsections 1-3, below:

1. Continuous Pathways. The pathway system shall extend throughout the development site, and connect to all future phases of development, adjacent trails, public parks and open space areas whenever possible. The developer may also be required to conneet or stub pathway(s) to adjacent streets and private property, in accordance with the provisions of Section 3.1.200 - Vehicular Access and Circulation, and Chapter 3.4. 100 - Transportation Standards.

3.1.300 – Pedestrian Access and Circulation *(continued)*

2. Safe, Direct, and Convenient Pathways. Pathways within developments shall provide safe, reasonably direct and convenient connections between primary building entrances and all adjacent streets, based on the following definitions:

   a. Reasonably direct. A route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.

   b. Safe and convenient. Bicycle and pedestrian routes that are reasonably free from hazards and provide a reasonably direct route of travel between destinations.

   c. Commercial and Industrial Primary Entrance. For commercial, industrial, mixed use, public, and institutional buildings, the "primary entrance" is the main public entrance to the building. In the case where no public entrance exists, street connections shall be provided to the main employee entrance.

   d. Residential Entrance. For residential buildings the "primary entrance" is the front door (i.e., facing the street). For multifamily buildings in which each unit does not have its own exterior entrance, the "primary entrance" may be a lobby, courtyard or breezeway which serves as a common entrance for more than one dwelling.

3. Connections Within Development. For all developments subject to Site Design Review, pathways shall connect all building entrances to one another. In addition, pathways shall connect all parking areas, storage areas, recreational facilities and common areas (as applicable), and adjacent developments to the site, as applicable.

4. Street Connectivity. Pathways (for pedestrians and bicycles) shall be provided at or near mid-block where the block length exceeds the length required by Section 3.1.200 J. Pathways shall also be provided where cul-de-sacs or dead-end streets are planned, to connect the ends of the streets together, to other streets, and/or to other developments. Pathways used to comply with these standards shall conform to all of the following criteria:

   a. Multi-use pathways (i.e., for pedestrians and bicyclists) are no less than 10 feet wide and located within a 20-foot-wide right-of-way or easement that allows access for emergency vehicles;

   b. If the streets within the subdivision or neighborhood are lighted, the pathways shall also be lighted;

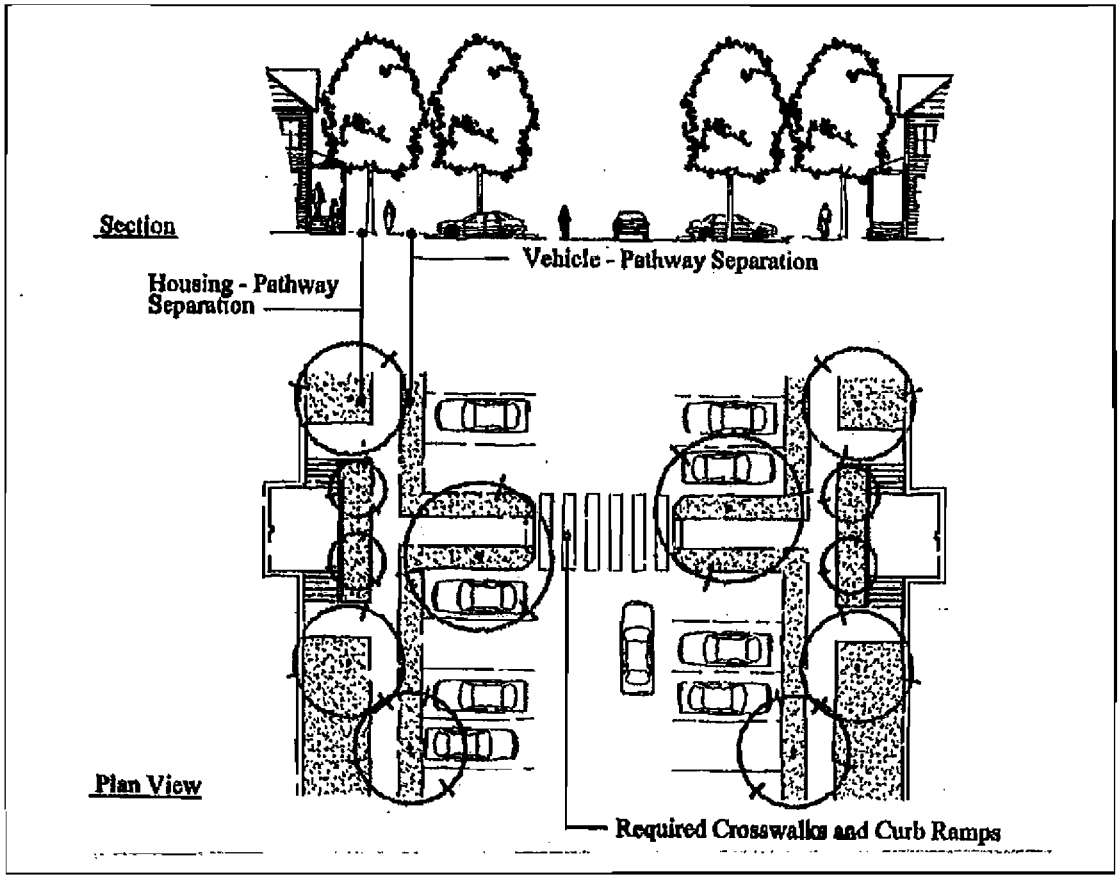
   c. Stairs or switchback paths nsing a narrower right-of-way/easement may be required in lieu of a multi-use pathway where grades are steep;

   d. The City may require landscaping within the pathway easement/right-of-way for screening and the privacy of adjoining properties;

3.1.300 – Pedestrian Access and Circulation *(continued)*

e. The City Manager or his/her designee may determine, based upon facts in the record, that a pathway is impracticable due to: physical or topographic conditions (e.g., freeways, railroads, extremely steep slopes, sensitive lands, and similar physical constraints); buildings or other existing development on adjacent properties that physically prevent a connection now or in the future, considering the potential for redevelopment; and sites where the provisions of recorded leases, easements, covenants, restrictions, or other agreements recorded as of the effective date of this Code prohibit the pathway connection.

Figure 3.1.300 B. Pathway Separations



3.1.300 – Pedestrian Access and Circulation *(continued)*

B. Design and Construction. Pathways shall conform to all of the standards in 1-5:

1. Vehicle/Pathway Separation. Where pathways are parallel and adjacent to a driveway or street (public or private), they shall be raised 6 inches and curbed, or separated from the driveway/street by a 5-foot minimum strip with bollards, a landscape berm, or other physical barrier. If a raised path is used, the ends of the raised portions must be equipped with curb ramps.

2. Housing/Pathway Separation. Pedestrian pathways shall be separated a minimum of 5 feet from all residential living areas on the ground floor, except at building entrances. Separation is measured from the pathway edge to the closest dwelling unit. The separation area shall be landscaped in conformance with the provisions of Chapter 3.3. No pathway/building separation is required for commercial, industrial, public, or institutional uses.

3. Crosswalks. Where pathways cross a parking area, driveway, or street ("crosswalk"), they shall be clearly marked with contrasting paving materials, humps/raised crossings, or painted striping. An example of contrasting paving material is the use of a concrete crosswalk through an asphalt driveway. If painted striping is used, it shall consist of thermo-plastic striping or similar type of durable application.

4. Pathway Surface. Pathway surfaces shall be concrete, asphalt, brick/masonry pavers, or other durable surface, at least 5 feet wide, and shall conform to ADA requirements. Multi-use paths (i.e., for bicycles and pedestrians) shall be the same materials, at least 10 feet wide. (See also, Section 3.4.100 - Transportation Standards for public, multi-use pathway standard.)

5. Accessible routes. Pathways shall comply with the Americans With Disabilities Act (ADA), which requires accessible routes of travel.

Attachment "D"

Chapter 4.10 - Traffic Impact Study

Sections:

4.10.100 Purpose

A. **Purpose.** The purpose of this section of the code is to implement Section 660-012-0045 (2) (e) of the State Transportation Planning Rule, which requires the City to adopt a process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities. This Chapter establishes the standards for when a proposal must be reviewed for potential traffic impacts; when a Traffic Impact Study must be submitted with a development application in order to determine whether conditions are needed to minimize impacts to and protect transportation facilities; what must be in a Traffic Impact Study; and who is qualified to prepare the Study.

B. **Typical Average Daily Trips.** ~~Standards by which to gauge average daily vehicle trips include: 10 trips per day per single family household, 5 trips per day per apartment; and 30 trips per day per 1,000 square feet of gross floor area such a new supermarket or other retail development.~~ The latest edition of the Trip Generation manual, published by the Institute of Transportation Engineers (ITE) shall be used as standards by which to gauge average daily vehicle trips.

For Discussion: Tying Boardman's trip generation standard to the nationally accepted Trip Generation manual will ensure that transportation analyses will be based on objective information. The proposed modification clarifies that the ITE manual will be the basis to determine trip generation standards for all types of development, not just what is currently listed in "B" above.

4.10.200 When Required

A. **When a Traffic Impact Study is Required.** A Traffic Impact Study shall be prepared and submitted to the City with the application, for review by the City and the Oregon Department of Transportation, when the following apply:
   1. The development application involves one or more of the following actions:
      a. A change in zoning or a plan amendment designation; or
      b. Any proposed development or land use action that ODOT states may have operational or safety concerns along a state highway; and
   2. The development shall cause one or more of the following effects, which can be determined by field counts, site observation, traffic impact analysis or study, field measurements, crash history, Institute of Transportation Engineers Trip Generation manual; and/or information and studies provided by the local reviewing jurisdiction and/or ODOT:
      a. An increase in site traffic volume generation by 500 Average Daily Trips (ADT) or more; or

b. An increase in ADT volume of a particular movement to and from the State highway by 20% or more; or
c. An increase in use of adjacent streets by vehicles exceeding the 20,000 pound gross vehicle weights by 20 vehicles or more per day; or

4.10.200 When Required

d. The location of the access driveway does not meet minimum site distance requirements, or is located where vehicles entering or leaving the property are restricted, or such vehicles queue or hesitate on the State highway, city arterial or city collector, creating a safety hazard; or
e. A change in internal traffic patterns that may cause safety problems, such as back up onto the highway, city arterial or city collector, or traffic crashes in the approach area.

4.10.300 Traffic Impact Study Requirements

A. Preparation. A Traffic Impact Study shall be prepared by a professional engineer ~~in accordance with OAR 734-051-180~~.

B. Transportation Planning Rule Compliance. See Chapter 4.7. 600.

C. Pre-application Conference. The applicant will meet with the Boardman Public Works and Community Development Director prior to submitting an application that requires a Traffic Impact Analysis. For proposals that may impact a state transportation facility, the Oregon Department of Transportation shall be invited to participate in this pre-application conference. The City has the discretion to determine the required elements of the Traffic Impact Analysis and the level of analysis expected.

For Discussion: The addition of "C" above clarifies that the City has the discretion to determine the required elements of the TIA and the level of analysis expected. The parameters of a required TIA would be discussed during a meeting with City staff prior to the submittal of an application. In this way, the complexity of the analysis can match the expected impact of a proposal, thereby minimizing the expense for smaller development proposals.

The necessity of having both the Community Development Director and the Public Works Director at this conference, and of codifying ODOT's involvement, should be a topic of discussion for the Steering Committee.

4.10.400 Approval Criteria

A. Criteria. When a Traffic Impact Study is required, approval of the development proposal requires satisfaction of the following criteria:
1. The Traffic Impact Study was prepared by a professional engineer ~~in accordance with OAR 734-051-180~~; and

2. If the proposed development shall cause one or more of the effects in Section 4.10.200A.5. above, or other traffic hazard or negative impact to a transportation facility, the Traffic Impact Study includes mitigation measures satisfactory to the City Engineer, and ODOT when applicable; and
3. The proposed site design and traffic and circulation design and facilities, for all transportation modes, including any mitigation measures, are designed to:
   a. Have the least negative impact on all applicable transportation facilities; and
   b. Accommodate and encourage non-motor vehicular modes of transportation to the extent practicable; and
   c. Make the most efficient use of land and public facilities as practicable; and
   d. Provide the most direct, safe and convenient routes practicable between on-site destinations, and between on-site and off-site destinations; and
   e. Otherwise comply with applicable requirements of the City of Boardman Development Code, including Chapters 3.1 Access and Circulation, 3.2. Landscaping, 3.3 Vehicle and Bicycle Parking, 3.4 Public Facilities Standards, 3.5 Stormwater Management, and 3.8 Loading Standards.

B. Conditions of Approval. The City may deny, approve, or approve the proposal with appropriate conditions.

Attachment "E"

Draft Boardman Main Street Interchange Area Management Plan
Revised Chapter 5. Interchange Area Management Plan

Policies, Rules and Ordinances

As land develops, redevelops or changes use within the interchange area, compliance will be required with the access management and circulation plans conceived through this study. As part of the adoption of the IAMP, the City of Boardman development codes are being amended to reflect standards and plans. In brief, code amendments implement:

Access Spacing Requirements
Local Street Connectivity
Access Management Plan
Cross-easement accesses

In addition, the Transportation System Plan will be amended to adopt the Local Street Network and the Access Management Plan and specific roadway and interchange improvements including street standards for South Main Street.

To implement the IAMP, the City will amend the Zoning Map to include an overlay district and amend the Development Code to include land use, development and redevelopment requirements within the district.

The IAMP Overlay District refines and clarifies existing city requirements as they pertain to development within the overlay. For example, the city currently has a traffic impact study (TIS) requirement for proposals that involve a change in zoning or a plan amendment designation, or that "may have operational and safety concerns along a state highway". Within the IAMP Overlay District, a TIS would only be required if such land use amendment was expected to generate 10% or greater PM peak hour traffic than the current zoning. Proposals that do not include a land use change, or those that do, but are shown to have an impact less than 10% in the PM peak hour traffic, will only be required to submit a traffic generation report.

In addition, the City currently requires an access permit as a part of their Site Design Review. As part of the permit approval process, the applicant will have to demonstrate that the proposed development project within the Overlay District will not preclude any necessary cross access to adjacent parcels and that, if the proposed development relies on cross access, a signed agreement is included as part of the development proposal. A cross access easement would be required if the subject site is being subdivided.

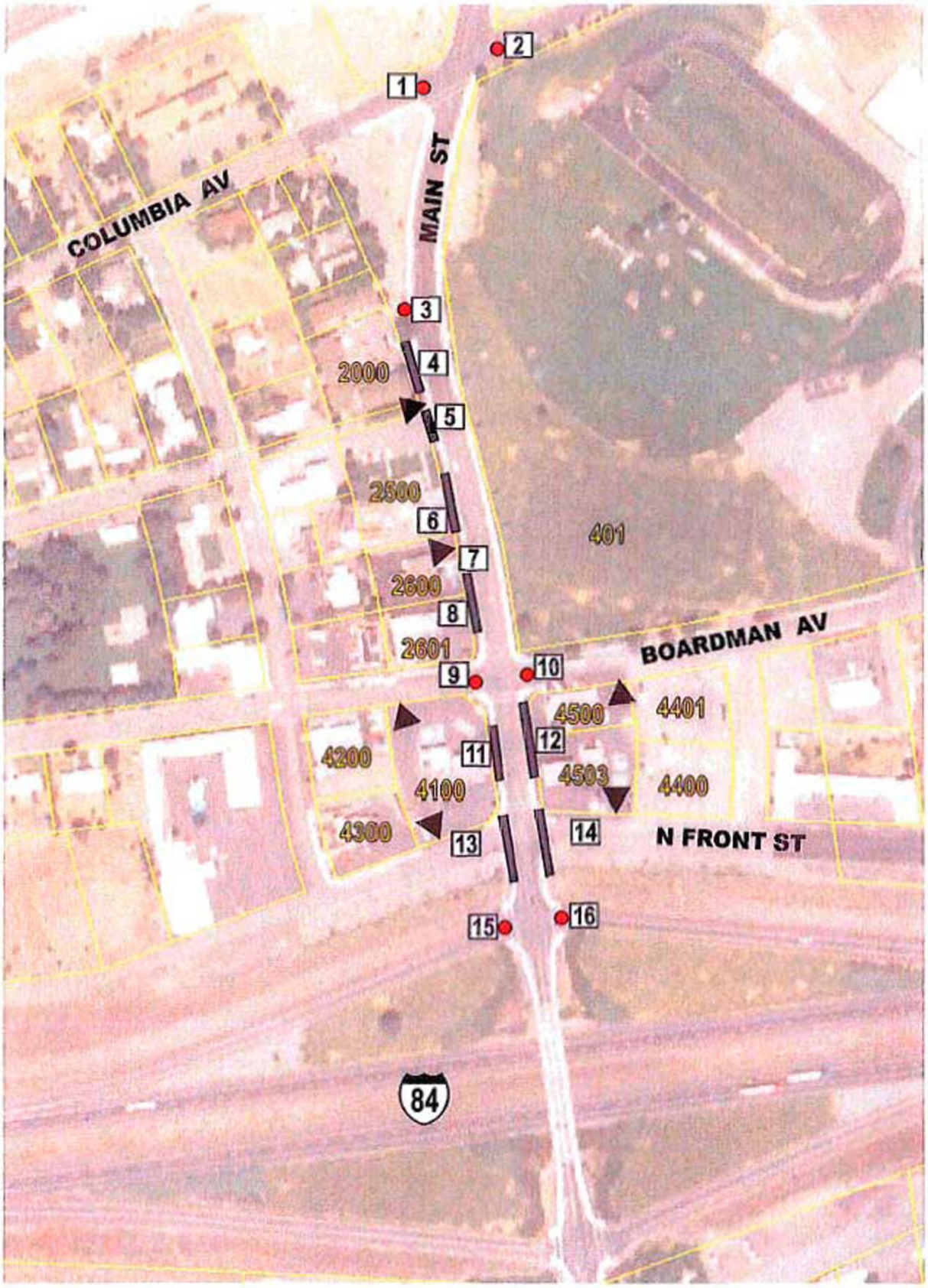
Updating the IAMP

The City will keep a record of all traffic generation reports and will use them to track how close the interchange is to operating at capacity. When the total new trips generated from development within the Overlay District exceeds approximately 85% of the trips

assumed in the IAMP, the City will initiate an update of the IAMP. Once notified of the need to update the IAMP, ODOT will work with the City of Boardman to create a planning project similar in scope to the original IAMP process. It is expected that an update triggered by traffic volumes will include a 20-year future forecast and needs analysis, a review of recent development patterns and the adequacy of the local street network, and a safety and operations analysis of the interchange. Once completed, the updated IAMP will be adopted by the City of Boardman through a legislative adoption process.

The Boardman Main Street Interchange IAMP also must be amended when a proposed land use is inconsistent with the current land use zoning and is anticipated to increase PM peak hour traffic by more than 10%. This applicant-initiated legislative amendment is not expected to entail the level of analysis that the city-initiated review will require. However, applicants will be required to demonstrate that the proposed amendment will be consistent with the planned improvements in the Overlay District. In such cases, the applicant will supply information to amend the IAMP, including a documentation of the additional trips generated by the subject site that are not anticipated in the IAMP and findings that either show how the planned improvements in the IAMP are sufficient to support the proposal, or that identify additional necessary transportation improvements to bring the proposed land use action into conformance with the IAMP.

Attachment "E-1"



LEGEND

- 0 - Access Location & Number
- 000 - Tax Lot ID#
- Long Range Future Access
- Long Range Future Curb *

*Approach will not be closed until reasonable access becomes available

City of Boardman Main Street IAMP
April 2009

NO SCALE

Figure 5.5

MAIN STREET LONG RANGE ACCESS MANAGEMENT PLAN NORTH

Attachment "E-2"

LEGEND

- Access Location & Number
- Tax Lot ID#
- Long Range Future Access
- Long Range Future Curb*
- Future Roadway Network

*Approach will not be closed until reasonable access becomes available

City of Boardman Main Street IAMP
April 2009

NO SCALE

Figure 5.6

MAIN STREET LONG RANGE ACCESS MANAGEMENT PLAN SOUTH

Boardman Main Street IAMP Findings of Compliance: State Policies and Requirements

Statewide Land Use Goals

The City is proposing to adopt the Boardman Main Street Interchange Area Management Plan (IAMP) as an element of the City of Boardman Transportation System Plan, thereby amending the state-acknowledged City of Boardman Comprehensive Plan. The following findings demonstrate that the adoption of the Boardman Main Street IAMP is consistent with LCDC's Goals.

Goal 1: Citizen Involvement
Goal 1 requires the development of a citizen involvement program that is widespread, allows two-way communication, provides for citizen involvement through all planning phases, and is understandable, responsive, and funded.

Response: In 2006, at the start of the planning process, the City distributed a public survey to gather information about the issues and challenges surrounding both Boardman I-84 interchanges and a project newsletter informing citizens of the planning process and how people could participate. In January 2007, a series of stakeholder interviews were conducted to get input specifically from Boardman citizens who rely on the interchange(s) regarding existing problems and possible solutions pertaining to function and safety (See Appendix 2 of the IAMP). Questions included how best to accommodate non-motorized transportation (bicycle, pedestrians) and how to fund the needed improvements.

Public hearings to adopt an IAMP for both interchanges in 2007 did not result in plan approval. In June of 2007 a Steering Committee was appointed by the city to guide the development and implementation of an IAMP for the Main Street Interchange only. The Steering Committee consisted of elected and appointed officials, property and business owners, and real estate professionals. Work continued on the IAMP throughout 2008, resulting in updated IAMP plan documents ("Final Reports") that were subject to City review and revisions. The Steering Committee then met several times during 2009 to review proposed revisions to the IAMP and to give input on proposed implementation measures.

In addition, the City held two Focus Group meetings and a city-wide Open House on June 22, 2009 to help ensure that interested Boardman residents, business owners, and property owners were aware of the proposed IAMP and regulatory provisions associated with implementing the plan. Property and business owners were invited to the Focus Group meetings, the first of which was for those with interests to the north of the interchange and the second for those primarily interested in planning south of the interchange. The Open House, which was advertised city-wide and open to the public, provided an overview of the IAMP planning process and the proposed future

improvements necessary to manage traffic and access in the vicinity of the interchange.

Notice of public hearings on the proposed changes to the City of Boardman's Comprehensive Plan and implementing ordinances was sent 20 days in advance of the hearings to property owners, interested parties, and governmental agencies, pursuant to City code requirements. The scheduled hearings will provide opportunities for public comment on the proposed changes.

Goal 2: Land Use Planning

This goal requires that a land use planning process and policy framework be established as a basis for all decisions and actions relating to the use of land. All local governments and state agencies involved in the land use action must coordinate with each other. City, county, state and federal agency and special districts plans and actions related to land use must be consistent with the comprehensive plans of cities and counties and regional plans adopted under Oregon Revised Statues (ORS) Chapter 268.

Response: Preliminary tasks in the development of the Boardman Main Street IAMP included a thorough review and analysis of all relevant state, regional and local planning documents in order to establish a planning process and policy framework. The following documents were reviewed:

- Oregon Transportation Plan
- Oregon Highway Plan
- Oregon Bicycle and Pedestrian Plan
- Statewide Planning Goals
- Oregon Access Management Rule OAR 734-051
- State Transportation Improvement Program (STIP)
- Morrow County Transportation System Plan
- City of Boardman Comprehensive Plan
- City of Boardman Transportation System Plan
- City of Boardman Development Code
- Main Street "Downtown" Development Plan

This review identified how the documents influence planning for the Main Street interchange project. Detailed review of plans and policies can be found in Appendix 1Background Plan Review.

The Boardman Main Street IAMP was prepared jointly by the City of Boardman and ODOT and coordination between the two agencies took place routinely throughout the process. A Project Management Team (PMT) was established to guide the IAMP process. The PMT consisted of representatives from the City and ODOT. The implementation of the IAMP, including the development of the new IAMP Overlay District development code chapter, was funded by a State Transportation Growth

Management (TGM) grant. Both the TGM grant manager and the City's Department of Land Conservation and Development representative participated in Steering Committee and public meetings associated with the completion and implementation of the IAMP. ODOT staff will help facilitate and support the adoption of the IAMP by the City of Boardman and, once locally adopted, by the Oregon Transportation Commission (OTC). ODOT and the City will continue to coordinate on development activity and land use actions within the interchange area.

Adopting the IAMP will ensure that the transportation element of the Comprehensive Plan (the TSP) is consistent with the proposed Main Street Interchange improvements.

Goal 9: Economic Development
This goal requires that local comprehensive plans and policies contribute to a stable and healthy economy in all regions of the state.

Response: The Main Street Interchange provides a vital function in supporting local economic development goals and plans. The City's civic center, including City Hall and the library, the High School, and the City's businesses and available commercial land are served by the interchange. Local traffic, including commercial vehicles, must have safe and efficient access to the interstate. The intent of the IAMP is to protect the safe and efficient operation of the interchange (see Chapter 2, Plan Goals, Objectives, and Evaluation Criteria). Adopting the IAMP will ensure that transportation improvements will ultimately be available to support the planned uses in this area of Boardman, consistent with this economic development goal.

Goal 10: Housing
This goal requires the City plans provide for the appropriate type, location and phasing of public facilities and services sufficient to support housing development in areas presently developed or undergoing development or redevelopment.

Response: The IAMP Overlay District includes some limited areas zoned for single-family, a small area zoned for multi-family residential, and an approximately 27 acres zoned parcel zoned for manufactured homes. The single-family zoning lies along North Main Street and, south of the interchange, partially within the BPA easement at the eastern boundary of the District. The Multifamily Sub-district lies at the southwestern boundary of the district, partially within the BPA easement, which limits its development. The parcel zoned Residential Manufactured Home Sub-district was the subject of a proposed land use amendment to commercial use that initiated the IAMP planning process in 2006. The proposed plan and zoning amendment was not approved by the City, but the IAMP assumes commercial uses on this parcel in anticipation of this land use change (See Figure 4.1 in the draft IAMP).

The Main Street Interchange serves all of western Boardman, including existing and planned residential areas both within and outside of the Overlay District. Residential trips were a part of the future (2026) traffic conditions analyzed at the Main Street interchange. The IAMP includes physical improvements associated with this interchange that will ensure that the facility will continue to operate safely and efficiently for all users. Preserving the function and capacity of the interchange facility through the adoption of the IAMP will benefit travelers to and from residential areas in the western part of the city.

Goal 11: Public Facilities and Services

Goal 11 requires cities and counties 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. The goal requires that urban and rural development be "guided and supported by types and levels of urban and rural public facilities and services appropriate for, but limited to, the needs and requirements of the urban, urbanizable and rural areas to be served."

Response: Transportation facilities are considered a primary type of public facility. The IAMP documents the current and future transportation needs in the vicinity of the Main Street Interchange. The analysis of possible alternatives resulted in recommended intersection improvements, a proposed local circulation plan, a new street standard for South Main Street, and an access management plan that are intended to meet future transportation demand. With the adoption of the IAMP, the City is adopting the recommended implementation measures related to the protection of the function and operation of the Main Street Interchange.

Goal 12: Transportation

Goal 12 requires cities, counties, metropolitan planning organizations, and ODOT to provide and encourage a "safe, convenient and economic transportation system." This is accomplished through development of Transportation System Plans based on inventories of local, regional and state transportation needs. Goal 12 is implemented through OAR 660, Division 12, also known as the Transportation Planning Rule ("TPR"). The TPR contains numerous requirements governing transportation planning and project development. (See the "OAR 660, Division 12" section of this document for findings of compliance with the TPR.)

Response: The purpose of the Boardman Main Street IAMP is to protect the function of the interchange and its ability to serve future transportation demands, thereby preserving the state's investment in the facility. The IAMP contains a discussion of the transportation analysis that was conducted in order to determine future demand, available capacity, deficiencies, and necessary transportation improvements for this interchange area. The analysis demonstrates that the planned transportation facilities will be adequate to safely and efficiently serve trips generated by future land uses for a period of at least 20 years.

To implement the IAMP, it must be adopted into the City of Boardman's Transportation Plan. Policy and zoning ordinance language, as summarized in IAMP Chapter 5 under the *Policies, Rules and Ordinances* section, is added to the City's Comprehensive Plan and Development Code in order to maintain interchange function and ensure that development inconsistent with the objectives of the IAMP does not cause unexpected traffic volumes or create non-conforming access points. The IAMP and the supporting city code amendments (new Chapter 2.5 Interchange Area Management Overlay District) provide for coordination between the City and ODOT for any land use actions proposed within the IAMP study area.

Local plans must be consistent with state plans. Subsequent to local action, adoption of the IAMP by the Oregon Transportation Commission will amend the Oregon Highway Plan to establish the preferred interchange project alternative.

See additional findings under OAR 660, Division 12 Transportation Planning Rule.

Oregon Transportation Plan (2006)

The Oregon Transportation Plan (OTP) is the state's long-range multimodal transportation plan. The OTP is the overarching policy document among a series of plans that together form the state transportation system plan (TSP). An IAMP must be consistent with applicable OTP goals and policies. Findings of compatibility will be part of the basis for IAMP approval. The most pertinent OTP goals and policies for interchange planning are as follows:

POLICY 1.2 – Equity, Efficiency and Travel Choices
It is the policy of the State of Oregon to promote a transportation system with multiple travel choices that are easy to use, reliable, cost-effective and accessible to all potential users, including the transportation disadvantaged.

Response: To address non-motorized modes of transportation, an inventory of sidewalks, designated bike lanes, shoulder bikeways, identified shared roadways and off- street trails along the city streets was conducted as part of the IAMP development. South Main Street currently has a multi-use path for pedestrians and bicycles and there are bike lanes along North Main Street and a multi-use path for bicycles along the north side of Wilson Road. The preferred pedestrian and bicycle network in the IAMP calls for curb and sidewalk similar to North Main Street to improve the safety of pedestrians along South Main Street (see Figure 5.3 South Main Street Improvements). Pedestrian access across Main Street is also detailed in the IAMP. Pedestrian crossings shall be accommodated at the major access points (I-84 ramps, Oregon Trail Boulevard, City Center Boulevard, Kinkade Road and Wilson Road). This would include sidewalk with ADA pedestrian ramps on the corners and possibly supplemental signing and/or painted crosswalks. A "mid-block" pedestrian

crossing could be accommodated on the north side of the BPA easement. The mid-block crossing could incorporate a center pedestrian refuge island, once South Main Street is reconstructed to the arterial standard. The City's recent award of an Economic Stimulus Funding grant for improvements on South Main Street will fund the first phase of these improvements.

The long-range phase of improvements include reconstruction and expansion of the Main Street overpass to accommodate a center left turn lane, bicycle lanes and wider sidewalks.

POLICY 1.3 – Relationship of Interurban and Urban Mobility
It is the policy of the State of Oregon to provide intercity mobility through and near urban areas in a manner which minimizes adverse effects on urban land use and travel patterns and provides for efficient long distance travel.

Response: The Boardman Main Street IAMP provides for improved safety and efficiency for travelers accessing Interstate 84 and land in the western part of Boardman. The IAMP documents how access management and planned improvements will ensure that the interchange facility will operate at levels consistent with the state's mobility standards over the 20-year planning horizon.

POLICY 2.1 - Capacity and Operational Efficiency
It is the policy of the State of Oregon to manage the transportation system to improve its capacity and operational efficiency for the long term benefit of people and goods movement.

Response: The Boardman Main Street IAMP project was developed in response to safety and operational efficiency issues affecting the existing interchange in west Boardman. The IAMP includes short-, medium- and long-range actions that accomplish state management objectives by identifying access management steps, necessary local street connections, improvements to South Main Street, and improvements to the interchange (traffic signals, widening Main Street Bridge). Through these actions, the IAMP protects long-term system capacity by ensuring that the interchange continues to function at a level that meets the mobility expectations of the state. The IAMP contains policies and recommendations that support the access management spacing standards and the new IAMP overlay district code chapter establishes that proposed land use actions that are inconsistent with the assumptions in the IAMP must include a review of potential impacts to interchange operations. Actions to minimize access locations will occur as part of future redevelopment, and only when reasonable alternate access becomes avalailable.

POLICY 2.2 – Management of Assets
It is the policy of the State of Oregon to manage transportation assets to extend their life and reduce maintenance costs.

Response: The stated purpose of the Boardman Main Street IAMP is to provide for safe and efficient travel around the interchange. This includes providing safe and efficient connections between local streets and the state highway, managing access in the vicinity of the interchange, and providing a logical and efficient local street network south of the interchange. Implementing the recommendations of the IAMP maximizes the interchange's operational life and the State's investment in the facility. In addition, through the provisions of Chapter 5 of the IAMP and the City's new Chapter 2.5 Interchange Area Management Plan (IAMP) Overlay District in the Development Code, the IAMP requires proposed changes to the planned land use system to demonstrate consistency with IAMP policies protecting the long-term function of the interchange facility.

POLICY 3.1 – An Integrated and Efficient Freight System
It is the policy of the State of Oregon to promote an integrated, efficient and reliable freight system involving air, barges, pipelines, rail, ships and trucks to provide Oregon a competitive advantage by moving goods faster and more reliably to regional, national and international markets.

POLICY 3.2 – Moving People to Support Economic Vitality
It is the policy of the State of Oregon to develop an integrated system of transportation facilities, services and information so that intrastate, interstate and international travelers can travel easily for business and recreation.

Response: I-84 is classified as an Interstate Highway and is part of the National Highway System. The primary function of the Interstate is to provide connections to major cities, regions of the State, and other states. I-84 is a major freight route and the primary objective of this facility is to provide mobility. A secondary function in urban areas is to provide connections for regional trips within the metropolitan area. There are existing safety issues at the interchange due to accesses on Main Street placed too close to the on and off ramps to the highway. Of a more immediate concern are the existing problems with vehicles stacking up at the west bound ramp – a situation that is made more difficult when truck traffic backs up. The IAMP documents a way to improve this situation over time, including the eventual warrant of a traffic signal at the west bound ramp terminal (see *Timing of Improvements*, IAMP Chapter 5). The Main Street Interchange provides a vital link between I-84 and the services provided in town to freight movers. The Boardman Main Street IAMP provides management tools to ensure continued mobility on I-84, while allowing safe and efficient vehicular movements onto, and in the vicinity of, the interchange.

POLICY 4.1 - Environmentally Responsible Transportation System
It is the policy of the State of Oregon to provide a transportation system that is environmentally responsible and encourages conservation and protection of natural resources.

Response: The Boardman Main Street IAMP was developed to identify necessary improvements to an existing interchange in anticipation of future growth in the City of Boardman. Land in the vicinity of the interchange is currently developed or is planned for urban-level development. Through the implementation and construction of improvements included in the preferred transportation system and interchange alternative natural resources will be avoided or mitigated.

POLICY 5.1 – Safety
It is the policy of the State of Oregon to continually improve the safety and security of all modes and transportation facilities for system users including operators, passengers, pedestrians, recipients of goods and services, and property owners.

Response: The Boardman Main Street IAMP states that a key element of the long-range preservation of operational efficiency and safety of the interchange is the management of access to Main Street. Because access points introduce a number of potential vehicular conflicts on a roadway and are frequently the causes of slowing or stopping vehicles, they can significantly degrade the flow of traffic and reduce the efficiency of the transportation system. The IAMP includes an Access Management Plan that includes short-, medium-, and long-range actions that, over time, will reduce the overall number of access points and providing greater separation between them in order to minimize the impacts of these conflicts. To reduce the conflicts and potential safety concerns, the full-access intersections at North and South Front Street will gradually need to be more restricted, which may include limiting to right-turn movements only or full closure (See *Transportation Alternatives*, IAMP Chapter 5).

Safety issues on the ramps are anticipated to need addressing in the medium- to long-range time frame and the IAMP calls for the construction of additional approach lanes on the ramp terminals and, as traffic conditions meet warrants, the installation of a traffic signal at the westbound ramp to improve the operation of the intersections and reduce queuing. The ultimate improvement alternative includes expanding the current freeway interchange by widening the bridge, which would improve safety by eliminating the existing sight distance issue for vehicles on the off-ramps looking across the bridge.

POLICY 7.1 – A Coordinated Transportation System
It is the policy of the State of Oregon to work collaboratively with other jurisdictions and agencies with the objective of removing barriers so the transportation system can function as one system.

Response: ODOT worked in collaboration with the City of Boardman to develop and adopt the IAMP. The IAMP describes a local transportation system, including access management and necessary local street connectivity that improves the safety and efficiency for motorized and non-motorized mode of travel. The Main Street interchange is a vital link in this system, providing access for travelers to services offered in the City of Boardman and for residents and business owners traveling to and from the northern and southern parts of town. The IAMP details how improvements to the local street system and, eventually, to the state's interchange facility, will continue to provide for the needs of residents and travelers on I-84. Proposed IAMP implementation language ensures future collaboration between the City and ODOT by requiring notification to ODOT of land use actions proposed within the IAMP Overlay Zone and including the system by which the IAMP will be updated (see *Policies, Rules and Ordinances* in Chapter 5 of the IAMP and proposed Chapter 2.5 Interchange Area Management Plan (IAMP) Overlay District in the City of Boardman Development Code.)

POLICY 7.3 – Public Involvement and Consultation
It is the policy of the State of Oregon to involve Oregonians to the fullest practical extent in transportation planning and implementation in order to deliver a transportation system that meets the diverse needs of the state.

POLICY 7.4 - Environmental Justice
It is the policy of the State of Oregon to provide all Oregonians, regardless of race, culture or income, equal access to transportation decision-making so all Oregonians may fairly share in benefits and burdens and enjoy the same degree of protection from disproportionate adverse impacts.

Response: Over the course of this three-year planning process, the City has engaged citizens in the development of the IAMP using various means, including project newsletters, stakeholder interviews, public surveys, focus group meetings, and open houses (also see the response under Goal 1 in this findings report). In addition, a Steering Committee consisting of elected and appointed officials, property and business owners, and real estate professionals was appointed by the City to guide the development and implementation an IAMP and represent the citizens' interests. During the implementation phase of the project, which commenced in 2009, the Steering Committee met several times to review proposed revisions to the IAMP and to give input on proposed implementation measures.

The interchange is an existing facility on the interstate highway system. The proposed transportation system and interchange facility recommendations provide improvements to address safety and operations issues and to manage traffic in the vicinity of the interchange consistent with adopted local and state policies. None of the proposed actions or analyzed alternatives affected land outside the immediate interchange area. While an approximately 27 acre parcel currently zoned for

manufacture home park use was analyzed for commercial uses for purposes of future transportation generation, no property is being proposed for rezoning as part of the local action to adopt the IAMP. In order to meet the City's Goal 10 obligations, if this property is proposed for a change in land use in the future, an alternate site suitable for manufactured homes must be located and zoned for that use within the city prior to the city approving the land use amendment. No target Environmental Justice Groups - which include minorities, people with disabilities, the elderly, people that speak English as a second language or non-English speaking people, and low income populations – are disproportionately affected by the IAMP.

Notice of public hearings on the proposed changes to the City of Boardman's Comprehensive Plan and implementing ordinances was sent 20 days in advance of the hearings to property owners, interested parties, and governmental agencies, pursuant to City code requirements. The scheduled hearings will provide opportunities for public comment on the proposed changes.

Oregon Highway Plan

The 1999 Oregon Highway Plan (OHP) establishes policies and investment strategies for Oregon's state highway system over a 20-year period and refines the goals and policies found in the OTP. Policies in the OHP emphasize the efficient management of the highway system to increase safety and to extend highway capacity, partnerships with other agencies and local governments, and the use of new techniques to improve road safety and capacity. These policies also link land use and transportation, set standards for highway performance and access management, and emphasize the relationship between state highways and local road, bicycle, pedestrian, transit, rail, and air systems. The policies applicable to planning for the Main Street interchange improvements are described below.

***Policy 1A** (Highway Classification) defines the function of state highways to serve different types of traffic that should be incorporated into and specified through IAMPs.*

***Policy 1C** (State Highway Freight System) states the need to balance the movement of goods and services with other uses.*

Response: I-84 is classified an Interstate Highway and is part of the National Highway System. The primary function of the Interstate is to provide connections to major cities, regions of the State, and other states. I-84 is a major freight route and the primary objective of this facility is to provide mobility. A secondary function in urban areas is to provide connections for regional trips within the metropolitan area.

Proposed interchange improvements and the access management plan, designed to minimize access points on Main Street in the vicinity of the interchange, were designed to ensure the safe and efficient high-speed, continuous-flow operation of I-

84, consistent with this state policy. In addition, the proposed preferred alternative improves freight mobility through the area by addressing safety, capacity, and efficiency issues.

***Policy 1B** (Land Use and Transportation) recognizes the need for coordination between state and local jurisdictions.*

Response: Coordination between ODOT and the City occurred throughout the preparation of the IAMP. A Project Management Team (PMT) was formed to inform the IAMP process and included members representing the City of Boardman and DLCD. The PMT coordinated throughout the project, including participating in meetings with the Steering Committee that were devoted to implementation measures and reviewed draft documents in order to provide consensual revisions.

***Policy 1F** (Highway Mobility Standards) sets mobility standards for ensuring a reliable and acceptable level of mobility on the highway system by identifying necessary improvements that would allow the interchange to function in a manner consistent with OHP mobility standards.*

Response: The analysis of future traffic conditions in the vicinity of the Main Street interchange shows that the existing interchange facility does not meet acceptable safety standards and that it will not be able to accommodate the expected traffic volumes over a 20-year planning horizon without the proposed improvements. The Main Street and I-84 westbound ramp is expected to exceed the performance standard of V/C < 0.85 in the PM peak hour. Three other intersections - Main Street and Boardman Avenue, Main Street and I-84 eastbound ramp, and Main Street and Front Street (South) – will operate with LOS E or F, which is within the City of Boardman's LOS performance standards for average intersection delay and LOS, but may result in increased delay for the side street approaches.

Mobility standards were used as a criterion for selecting a preferred set of interchange improvements and developing a local street network and an access management plan for the interchange area.

***Policy 1G** (Major Improvements) requires maintaining performance and improving safety by improving efficiency and management before adding capacity. ODOT works with regional and local governments to address highway performance and safety.*

Response: The improvement alternatives in the IAMP have been prioritized into short, medium, and long-range actions, to provide guidance for future implementation and funding (see Table 1.2). The timing for implementing these actions assumes average growth over the next 20 years. The IAMP includes short- and medium-range actions, such as an access management and local street improvements, that do not add capacity. From a capacity standpoint, the bridge is able to accommodate the

forecasted vehicular traffic. However, the bridge is too narrow to incorporate northbound and southbound left turn lanes at the ramp intersections, an improvement that may be triggered within the planning horizon by either an increase in crashes or a decrease in LOS. An expansion of the Main Street overpass to accommodate a center left turn lane, bicycle lanes and wider sidewalks is only anticipated as a long-range project in response to accommodating the additional turn lanes.

***Policy 2B** (Off-System Improvements) helps local jurisdictions adopt land use and access management policies.*

Response: Adoption of the land use and access management policies and implementation measures in the IAMP protect the function of the interchange and other related transportation improvements. The IAMP's access management plan restricts direct access to the interchange and implementation of the proposed local street connectivity plan will provide a local street network that will safely and efficiently carry local trips and provide access to locations and properties in west Boardman.

***Policy 2F** (Traffic Safety) improves the safety of the highway system.*

Response: The main goal of the IAMP is to provide for safe and efficient travel around the interchange. A key outcome of the IAMP is the identification of potential vehicle queuing onto the mainline freeway. The IAMP protects the safe and efficient operation of the interchange by proposing transportation system and facility improvements to meet the year 2026 traffic demand, regulating access, and providing alternatives to highway use via a planned local street network.

***Policy 3A** (Classification and Spacing Standards) sets access spacing standards for driveways and approaches to the state highway system.*

Response: The IAMP moves in the direction of meeting the approach road spacing standards established by OAR 734-051. The IAMP contains short- and long-range access strategies that will be applied within the IAMP Overlay District in order to regulate existing and future driveway and other approaches in the vicinity of the interchange. As shown in Chapter 5 of the IAMP, the long range improvements on south side of the interchange could ultimately achieve the standards. The access management plan north of the interchange will result in consolidated private approaches in the long-term but, given the existing built environment and the vital east-west connection Boardman Avenue provides, the access management standards for approach roads will not be achievable. As required in the IAMP and the proposed Chapter 2.5 Interchange Area Management Plan (IAMP) Overlay District, modifications to the access management plan will need to be addressed in an amendment to the IAMP.

***Policy 3C** (Interchange Access Management Areas) sets policy for managing interchange areas by developing an IAMP that identifies and addresses current interchange deficiencies and establishes short, medium and long term solutions.*

Response: The IAMP provides recommendations for short-, medium-, and long-range access management and implementation actions, as well as land use and transportation policies that are intended to protect the interchange over the 20-year planning horizon.

***Policy 3D** (Deviations) establishes general policies and procedures for deviations from adopted access management standards and policies.*

Response: This policy is not applicable as the IAMP does not identify any necessary deviations from adopted State access management standards and policies.

OAR 660 Division 12 Transportation Planning Rule (TPR)

The purpose of the TPR is "to implement Statewide Planning Goal 12 (Transportation) and promote the development of safe, convenient and economic transportation systems that are designed to reduce reliance on the automobile so that the air pollution, traffic and other livability problems faced by urban areas in other parts of the country might be avoided." A major purpose of the Transportation Planning Rule (TPR) is to promote more careful coordination of land use and transportation planning, to ensure that planned land uses are supported by and consistent with planned transportation facilities and improvements. The TPR references OAR 731, Division 15 for ODOT coordination procedures for adopting facility plans and plans for Class 1 and 3 projects.

Section 660-012-0005 through 660-012-0050

Response: These sections of the TPR contain policies for preparing and implementing a transportation system plan. The Boardman Main Street IAMP will be adopted as part of the City's existing transportation system plan and most of these sections are not applicable. The TPR requires that local governments adopt land use regulations consistent with state and federal requirements "to protect transportation facilities, corridors, and sites for their identified functions (OAR 660-012-0045(2))." As part of IAMP adoption, the City will revise the City of Boardman Development Code to include a new Interchange Area Management Plan Overlay District section (proposed Chapter 2.5). The requirements of this new Development Code section will ensure that future local land use actions are consistent with the transportation facility planning within the IAMP.

Section 660-012-0055 – Timing of Adoption and Update of Transportation System Plans

Response: Part (5) in this Section requires cities and counties to update their TSPs and implementing measures when a refinement plan has been completed. The Boardman Main Street IAMP is considered a refinement plan and therefore is subject to this requirement. Consistent with this TPR requirement, the City of Boardman will amend the TSP to adopt the IAMP by reference. The *Policies, Rules and Ordinances* section of Chapter 5 in the IAMP outlines the policies and implementation measures that will be adopted by the City.

Section 660-012-0060 – Plan and Land Use Regulation Amendments

Response: Part (1) in this section requires that where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures to assure that allowed land uses are consistent with the identified function, capacity, and performance standards of the facility. Current and future planned land uses were considered in development of the IAMP's preferred interchange improvements in order to ensure the facility's ability to support future traffic demands.

Existing City code requires -0060 findings for comprehensive plan, zoning map or development regulation amendments. Proposed implementation measures within the City's proposed Chapter 2.5 Interchange Area Management Plan (IAMP) Overlay District extend this requirement to the interchange area, requiring that plan amendment and zone change requests within the IAMP area demonstrate that they will not have a significant affect on the interchange facility. Related to this policy, the new code chapter contains proposed development standards that codify traffic impact analysis requirement for development within the Overlay District. Proposed implementation measures also require that any proposed land use actions within the Overlay Zone be noticed to ODOT.

OAR 731-015-0065 Coordination Procedures for Adopting Final Facility Plans

OAR 731-015-0065 regulates ODOT procedure for adopting facility plans. An IAMP is a facility plan. The procedure outlined in OAR 731-015-0065 requires that ODOT coordinate with DLCD and local government agencies during development of the plan and provide a draft of the facility plan to affected cities, counties, and other agencies for comment. The facility plan must be consistent with statewide planning goals and local comprehensive plan policies, and findings of compatibility must be presented to the Oregon Transportation Commission for facility plan adoption.

Response: The Boardman Main Street IAMP is the result of a collaborative planning effort between ODOT and the City. Coordination with DLCD during IAMP development occurred primarily through notification of project management team meetings and distribution of materials for these meetings. Financial support for the

implementation phase of the project came from the Transportation Growth Management Program, a joint ODOT and DLCD program. Findings addressing statewide goals and requirements in support of IAMP adoption are included in this report. A final draft of the IAMP will be provided to all affected government and other agencies, and any potential conflicts with state or local plans will be jointly resolved through the local public adoption process. Findings of compliance with statewide planning goals and local comprehensive plans also will be included in materials for presentation to the Oregon Transportation Commission. Adoption of the IAMP will take place in conformance with this provision.

OAR 734, Division 51. Highway Approaches, Access Control, Spacing Standards and Medians

OAR 734-051 governs the permitting, management, and standards of approaches to state highways to ensure safe and efficient operation of the state highways. OAR 734-051 policies address the following:

- How to bring existing and future approaches into compliance with access spacing standards, and ensure the safe and efficient operation of the highway;
- The purpose and components of an access management plan; and
- Requirements regarding mitigation, modification and closure of existing approaches as part of project development.

Section 734-051-0125, Access Management Spacing Standards for Approaches in an Interchange Area, establishes interchange management area access spacing standards. It also specifies elements that are to be included in IAMPs, such as short-, medium-, and long-range actions to improve and maintain safe and efficient roadway operations within the interchange area.

Response: The access management plan component of the Boardman Main Street IAMP includes development standards that regulate access spacing for new development and redevelopment near the interchange. The access management standards adopted by ODOT state that the distance between an interchange ramp intersection and the first right in/right out access shall be no less than 750 feet. The distance between an interchange ramp intersection and the first full access intersection shall be no less than 1,320 feet. These standards apply to a "fully developed urban interchange" which occurs when 85% or more of the parcels along the frontage are developed at urban densities and have driveways accessing the crossroad.

Implementation of the access management plan is intended to occur over a long period of time because some affected properties maintain infrastructure (e.g. buildings and internal roadways) that was established based on prior approvals of access locations to the subject roadways and some elements of the plan depend on the

presence of new public streets that cannot be constructed until funds are made available. Therefore, the improvements in the IAMP have been prioritized and categorized into short-range, medium-range, and long-range actions, where the short-range actions are to be executed at this time and the medium and long-range actions are to be executed as needed funds become available or as opportunities arise during property redevelopment (see *Access Management Plan* in Chapter 5 of the IAMP).

Section 734-051-0125, 734-051-0155, Access Management Plans and Interchange Area Management Plans, states that the intent of developing an IAMP is to protect the function of the interchange by maximizing its capacity for safe movement from the mainline facility, to provide safe and efficient operations between connecting roadways, and to minimize the need for major improvements to an existing facility. This section also details IAMP requirements, including the requirement that the IAMP includes the local policies and standards that are relied upon for implementation.

Response: As detailed in the response under OHP Policy 1G in this report, the recommended improvements in the IAMP have been prioritized into short, medium, and long-range actions and that implementation of short- and medium-range improvements will postpone the need for the reconstruction and expansion of the Main Street overpass, which is not anticipated to be necessary until late in the 20-year planning horizon.

Implementation of the IAMP is reliant upon the City of Boardman amending the local Transportation System Plan to incorporate the local connectivity, access management, and transportation improvements associated with the preferred interchange improvement. In addition, implementation of the IAMP will occur through the City of Boardman amending the Development Ordinance to include an IAMP overlay district. The proposed Chapter 2.5 Interchange Area Management Plan (IAMP) Overlay District contains the submittal requirements and review standards for land use amendment and development proposals within the district; access management standards and local street connectivity requirements will be based on the IAMP.

The locally amended TSP and the amendments to the City of Boardman Development Code (new Chapter 2.5 Interchange Area Management Plan (IAMP) and associated amendments to Chapter 3.1 Access and Circulation and Chapter 4.10Traffic Impact Study), are the documents that will be relied upon to implement the IAMP.