Final Draft

Interchange Area Management Plan

Oregon Department of Transportation

November 2005

Contents

SECTION 1

Background

Introduction

Interstate 5 is designated as an international trade corridor and freight route. I-5 provides north-south access controlled movement of interstate goods, services, and passenger travel between Mexico and Canada, through California, Oregon, and Washington. Thus, the I-5/Beltline Interchange is one key element of a comprehensive transportation network serving interstate, regional, and local travel demands in the Eugene-Springfield area.

Changes in land use over the years have affected the function and operations of the interchange and the surrounding transportation system. The interchange opened in 1968, serving a predominantly rural area with a rural interchange form. Land uses are now urban, which has affected the function and operation of the interchange and surrounding transportation system.

To address the issues, the Oregon Department of Transportation (ODOT) first completed an interchange refinement plan to determine the appropriate course of action. Building on the understanding gained during that process, ODOT developed and evaluated alternative actions through an Environmental Assessment (EA) for the project. The proposed project is the selected alternative for the I-5/Beltline Interchange project, as described in the May 2002 EA and July 2003 Revised Environmental Assessment (REA).

It is anticipated that the I-5/Beltline Interchange project would be constructed in three phases over a period of several years (approximately 2006-2022). An intergovernmental agreement (IGA) executed between ODOT and the City of Springfield (see Appendix A) includes traffic monitoring requirements, the results of which would trigger actions consistent with the three phases. Funding for the first phase of the project has been programmed by ODOT. Release of funds for construction is being deferred until this Interchange Area Management Plan (IAMP) is approved by the Oregon Transportation Commission.

Purpose and Reasons for Preparing the IAMP

Oregon Highway Plan (OHP) policy and administrative rules (OAR 660-012, 731-015, 734-051) require ODOT and local jurisdictions to collaboratively address land use and transportation issues, especially in the vicinity of interchanges. The development of IAMPs (per OAR 734-051-0155) is one way to address these issues.

ODOT is required to prepare an IAMP for the I-5/Beltline Interchange by Oregon Administrative Rule (OAR) 734-051, commitments made in the REA, the IGA with Springfield, and Statewide Transportation Improvement Program (STIP) footnote for the project's Phase 1. The IAMP is the management plan which describes how the investment in interchange improvements will be managed to protect its intended function and operations

throughout the project design life, with the specific purpose of minimizing the need for additional improvements beyond those identified for the project in the May 2003 Revised Environmental Assessment.

Description of Planning Area

The interchange is located at milepost 195 on Interstate 5 near the northern limits of the Eugene-Springfield area, which is one of Oregon's three largest urban areas. Figure 1 shows the area of influence for interchange operations and traffic impacts, as well as existing land use, as identified for the environmental assessment process.

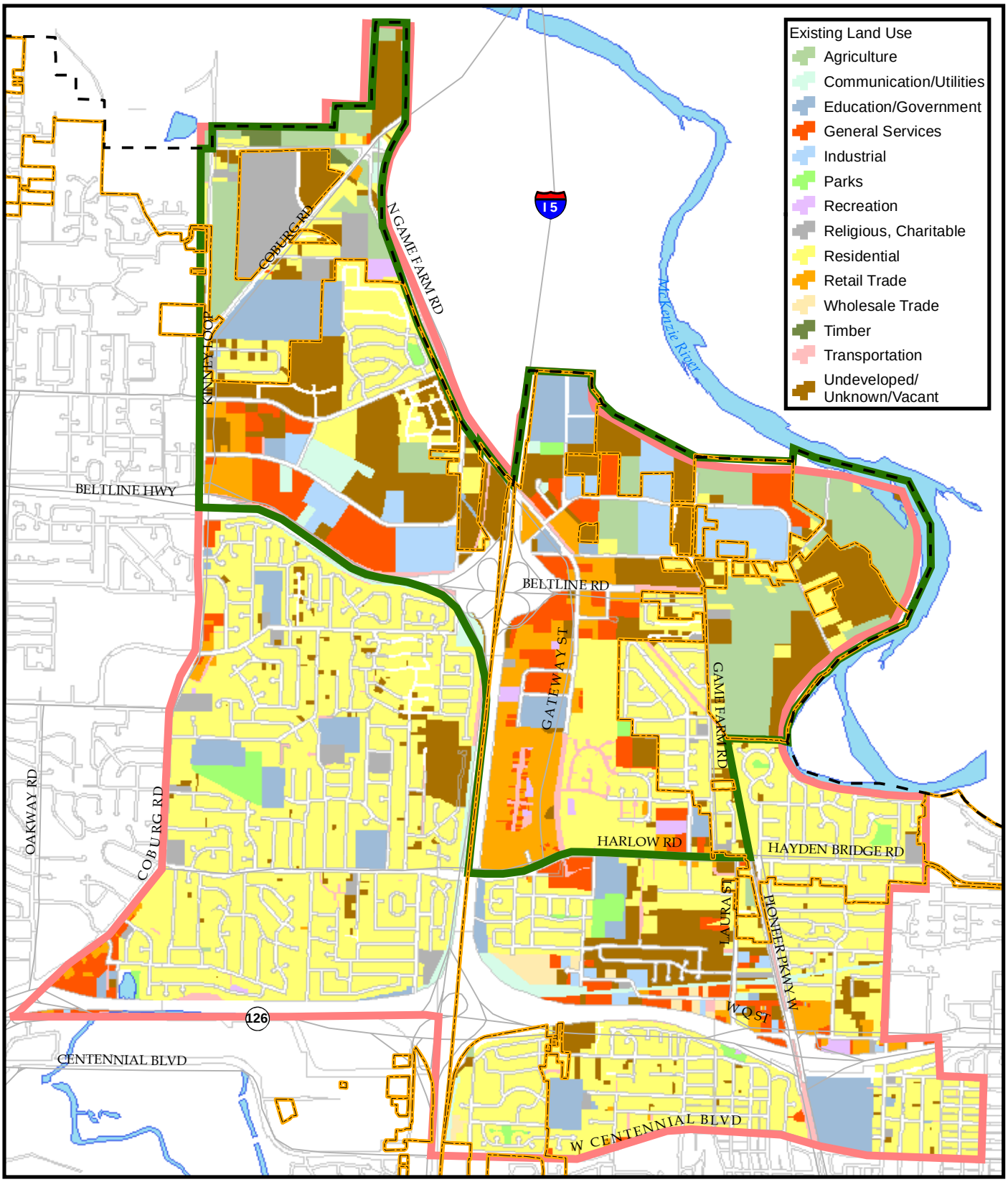
Figure 1 also identifies the I-5/Beltline Interchange Management Area, which is the subject geography for this IAMP. The management area was developed with consideration to the relevant Oregon Administrative Rules [OAR 660-012-0060 (4)(d)(C), and 734-051-0155 (4)(a)], existing and planned land use, transportation facilities and traffic, natural and cultural resources, and vacant or underutilized land within the interchange influence area including the management area.

Other Work Products

Related work products contributing to the development of this IAMP are listed in Section 4, References. Review of these documents provides a history of the project. In the spring of 1996, ODOT began a facility plan for the I-5/Beltline Interchange project, with the first steering committee meeting held in June 1996. A facility or refinement plan provides public participation before allocation of funds. This facility plan included analysis of transportation issues, traffic forecasting, concept designs, location, and refined solution costs. Creation and analysis of the design concepts was completed by November 1999.

In the year 2000, ODOT began a highly structured public and agency project evaluation screening process to identify a range of alternatives for improving the Beltline Interchange. This process led to the selection of environmental study alternatives for documentation in an EA. This effort produced alternatives considered and dismissed, as well as those carried through the EA.

The EA for the project was released in May 2002. It included a No-Build Alternative and a Beltline Interchange Build Alternative with three Gateway/Beltline Intersection Options. A public hearing was held and a decision to choose the selected alternative was made in November 2002. A REA was completed in May 2003, followed by a Finding of No Significant Impact by the FHWA in July 2003. A copy of the EA and REA are available from the ODOT Region 2 Planning Manager.



Legend

- Interchange Management Area
- Project Influence Area
- Urban Growth Boundary
- City Limits
- Roads
- Waterbody

N

0 2,500 5,000

Feet

Source: City of Springfield, October 2005

Note: Map is representational as of 9/05 and may not reflect recent City Council actions

Figure 1

Project Study Areas and Land Uses

Interchange Area Management Plan
I-5/Beltline Interchange

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SECTION 2

Interchange Area Management Plan

Plan Elements

This section identifies the elements of the I-5/Beltline Interchange Area Management Plan (IAMP). The IAMP is intended to manage the I-5/Beltline Interchange Project (Project) in order to protect the function and capacity of interchange over the course of its design life. The IAMP applies to the interchange management area shown in Figure 1. The Plan includes the following, per OAR 734-051-0155(6)(d):

I. "Transportation Operational Analysis Report for the I-5/Beltline Interchange". Current and future traffic is analyzed in the project's Environmental Assessment, specifically in this report. (See Appendix B.)

II. Project geometry and traffic control are described and shown as follows:

Phase 1 Work (Figure 2):

- A new "flyover" ramp from I-5 northbound to westbound Beltline Highway
- New westbound auxiliary lane to the Beltline Highway-Coburg Road Interchange
- Game Farm Bridge replacements
- Bicycle and pedestrian facilities including a new bike and pedestrian crossing of Interstate 5
- Also includes Right-of-way acquisition and reimbursable utilities

Partially Funded Work (Figure 3):

- EB to NB modified loop ramp
- Auxiliary lanes on I-5, I-105 to Beltline
- Auxiliary lane on Beltline and signal work
- Gateway/Beltline intersection improvements
- Noise and other environmental mitigation

III. The following existing local plan and code provisions adopted by the Cities of Eugene and Springfield. The following citations include full text of these plan policies and code provisions. **Note:** Cited language is indicated in Arial Narrow font.

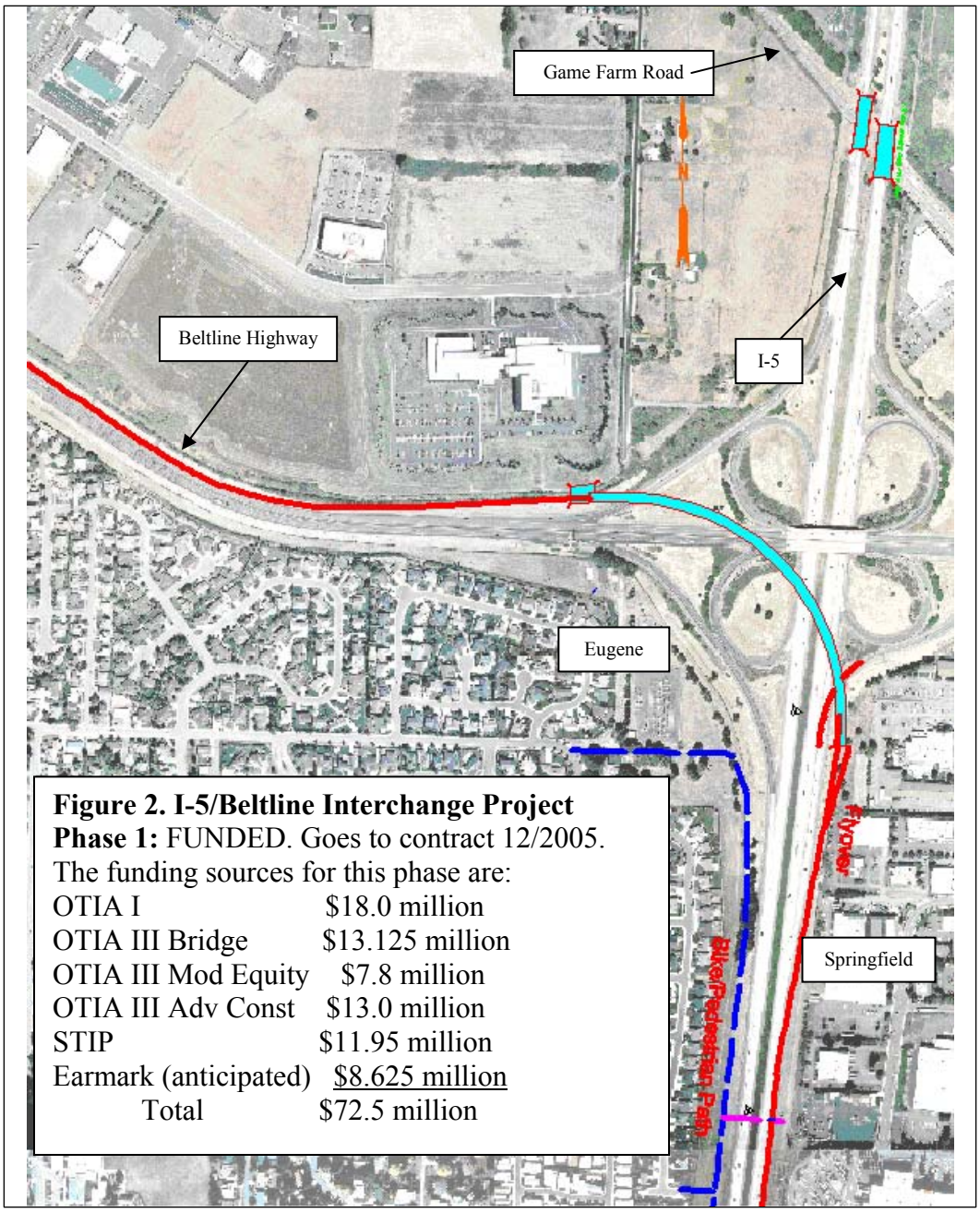

Figure 2. I-5/Beltline Interchange Project
Phase 1: FUNDED. Goes to contract 12/2005.
The funding sources for this phase are:

OTIA I	$18.0 million
OTIA III Bridge	$13.125 million
OTIA III Mod Equity	$7.8 million
OTIA III Adv Const	$13.0 million
STIP	$11.95 million
Earmark (anticipated)	$8.625 million
Total	$72.5 million

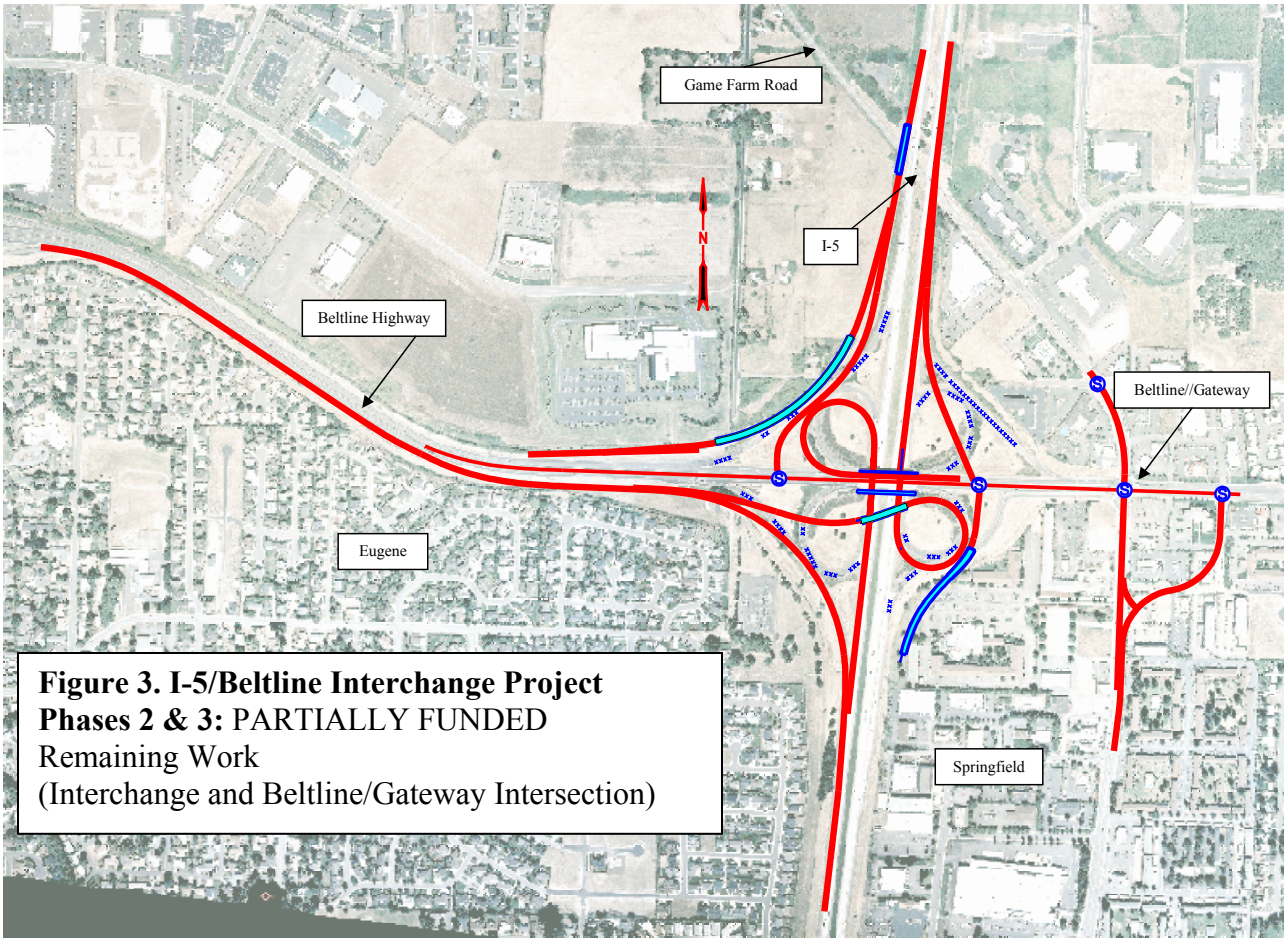

Figure 3. I-5/Beltline Interchange Project
Phases 2 & 3: PARTIALLY FUNDED
Remaining Work
(Interchange and Beltline/Gateway Intersection)

(1) MetroPlan Plan Diagram (1987 Update)

The portion of the MetroPlan Diagram within the IAMP Interchange Management Area is part of this IAMP. The legal version of this map, in conjunction with the legal versions of the Willakenzie Land Use Diagram and the Gateway Refinement Plan Map, on September 30, 2005, describe the planned land uses that are relied on for this IAMP.

The MetroPlan Diagram (Diagram) is the broad comprehensive plan map for the Eugene/Springfield metropolitan area. Where refinement plans exist for sub-areas of the MetroPlan Diagram, the refinement plan diagrams are relied on in the land use process. The MetroPlan jurisdictions have adopted a 2004 update to the 1987 MetroPlan Diagram; however, the land use actions taken by the local MetroPlan partners to update the Diagram have been appealed to the Land Use Board of Appeals (LUBA), and LUBA's ruling (and any subsequent actions) is pending as of the preparation of this IAMP. For this reason, the 1987 Diagram remains in force in companion with existing refinement plan maps, and MetroPlan and Refinement Plan text as amended. The intent with this IAMP would be to amend the IAMP to include an accurate version of the 2004 Diagram once the legal questions about the 2004 Diagram have been fully resolved.

(2) 1987 Eugene-Springfield Metropolitan Area General Plan, as amended through September 30, 2005 (MetroPlan)

MetroPlan serves as the official Comprehensive Plan for metropolitan Lane County, the City of Eugene and the City of Springfield. The following plan citation from the MetroPlan supports long-range planning for interchange areas and is part of the IAMP.

- ***Plan Element: Economy***

  Objective III.B.10: Provide the necessary public facilities and services to allow economic development.

(3) 2002 Eugene-Springfield Metropolitan Area Transportation Plan (TransPlan)

TransPlan is adopted as a functional plan for the MetroPlan. The following plan citations from TransPlan support long-range planning for interchange areas and are part of the IAMP.

- ***TransPlan Policy: TSI System-Wide Policy #1 – Transportation Infrastructure Protection and Management; same as MetroPlan Policy F-10:*** *Protect and manage existing and future transportation infrastructure.*

- ***TransPlan Policy: TSI Roadway Policy #2 – Motor Vehicle Level of Service; same as MetroPlan Policy F-15:*** *Motor vehicle level of service policy*

  1. Use motor vehicle level of service standards to maintain acceptable and reliable performance on the roadway system. These standards shall be used for:

     a. Identifying capacity deficiencies on the roadway system.

     b. Evaluating the impacts on roadways of amendments to transportation plans, acknowledged comprehensive plans and land-use regulations, pursuant to the TPR (OAR 660-12-0060).

     c. Evaluating development applications for consistency with the land-use regulations of the applicable local government jurisdiction.

2. Acceptable and reliable performance is defined by the following levels of service under peak hour conditions: LOS E within Eugene's Central Area Transportation Study (CATS) area, and LOS D elsewhere.

3. Performance standards from the OHP shall be applied on state facilities in the Eugene-Springfield metropolitan area.

- ***TransPlan Policy: TSI Roadway Policy #4 – Access Management; same as MetroPlan Policy F-17:*** *Manage the roadway system to preserve safety and operational efficiency by adopting regulations to manage access to roadways and applying these regulations to decisions related to approving new or modified access to the roadway system.*

- ***TransPlan Policy: Finance Policy #2 – Operations, Maintenance and Preservation; same as MetroPlan Policy F-34:*** *Operate and maintain transportation facilities in a way that reduces the need for more expensive future repair.*

- ***TransPlan Policy: Finance Policy #4 – New Development; same as MetroPlan Policy F-36:*** *Require that new development pay for its capacity impact on the transportation system.*

(4) Willakenzie Area Plan, September 1992, and Ordinances 20265, 20302, 20305 (City of Eugene)

The Willakenzie Area Plan (WAP) is a City of Eugene sub-area plan that addresses the 5,708-acre portion of Eugene and unincorporated county west of I-5 and east of the Willamette River. Boundaries include the Willamette River to the south and west, the UGB to the north, and Interstate 5 to the east. The WAP is a refinement of the MetroPlan, specific to the Willakenzie area. The WAP includes a transportation element that includes existing conditions and policies and addresses proposed transportation projects in the area. Several amendments have been made to the plan through the years, specifically via Ordinances No. 20265 (Chase Nodal Development Area), No. 20302 (Crescent Village PUD, land use change) and No. 20305 (Summer Oaks Crescent Center PUD).

The Plan recognizes that development of the Gateway commercial area in Springfield will have impacts on the transportation system and on commercial land demand in the Willakenzie study area. The WAP also states that a substantial amount of commercial development has occurred recently within the study area. The I-5/Beltline REA project was developed using the framework of land uses as specified in the Willakenzie Area Plan, and therefore, all project recommendations are consistent with the anticipated growth expectations in the WAP.

Certain goals and policies included within the WAP support interchange area management, including the following, which are part of the IAMP:

- **Plan Section 4: Transportation Element**
    - **Major Streets, #2:** The City shall maintain and encourage the safe and efficient operation of major streets by limiting private, direct access to these streets when necessary. (Page 97).

- **Major Streets, #5:** The City shall work with major developers and employers to ensure that transportation demand management strategies are incorporated into their facilities planning and operations. (Page 98).
- **Major Streets, #6:** The city shall work with developers to provide and participate in transportation mitigation measures which are necessary to resolve direct traffic impacts resulting from new development. Mitigation measures could include such things as traffic control, street widenings, turn lanes, and other access improvements. (Page 98).

(5) September 1992 Willakenzie Area Plan Land Use Diagram, as amended through September 30, 2005

The portion of the current Willakenzie Area Plan Land Use Diagram (Figure 4) within the IAMP Interchange Management Area is part of this IAMP. The legal version of this map, on September 30, 2005, describes the planned land uses on the west side of Interstate 5 that are relied on for this IAMP.

The Willakenzie Area Plan Land Use Diagram is in the process of being updated to reflect amendments to that plan since 1992. The intent with this IAMP would be to amend the IAMP to include an accurate version of the Willakenzie Area Land Use Diagram once that Diagram has been fully updated to reflect Willakenzie Area Plan text amendments through September 30, 2005.

(6) Gateway Refinement Plan, November 1992, and Gateway Refinement Plan Text Amendments (Jo.No. 2002-08-244), 1/10/05 (City of Springfield)

The Gateway Refinement Plan (GRP) is a City of Springfield sub-area plan of the MetroPlan that addresses the area bound by I-5 to the west, Pioneer Parkway to the east, Eugene-Springfield Highway to the south, and Game Farm Road to the north. The Plan emphasizes the significance of development in the Gateway area for Springfield. The Gateway-Beltline intersection is listed as an area for continued focus of redevelopment and new development. The GRP supports the viability of Gateway Mall, the surrounding area, and long-term development trends. The GRP lists proposed transportation projects for the Gateway area.

Recent amendments to the GRP have allowed the development of PeaceHealth's RiverBend Regional Medical Center, a large medical services complex in the interchange management area, which has implications for regional traffic. Specific new policies relate directly to the I-5/Beltline IAMP and promote interchange management by implementing a trip limit and trip monitoring plans for master plans for property at the RiverBend site. The amendments primarily affected the Residential Element, Commercial Element, Transportation Element and Public Facilities Element of the GRP.

Certain goals and policies from the GRP support interchange area management, including the following, which are part of the IAMP:

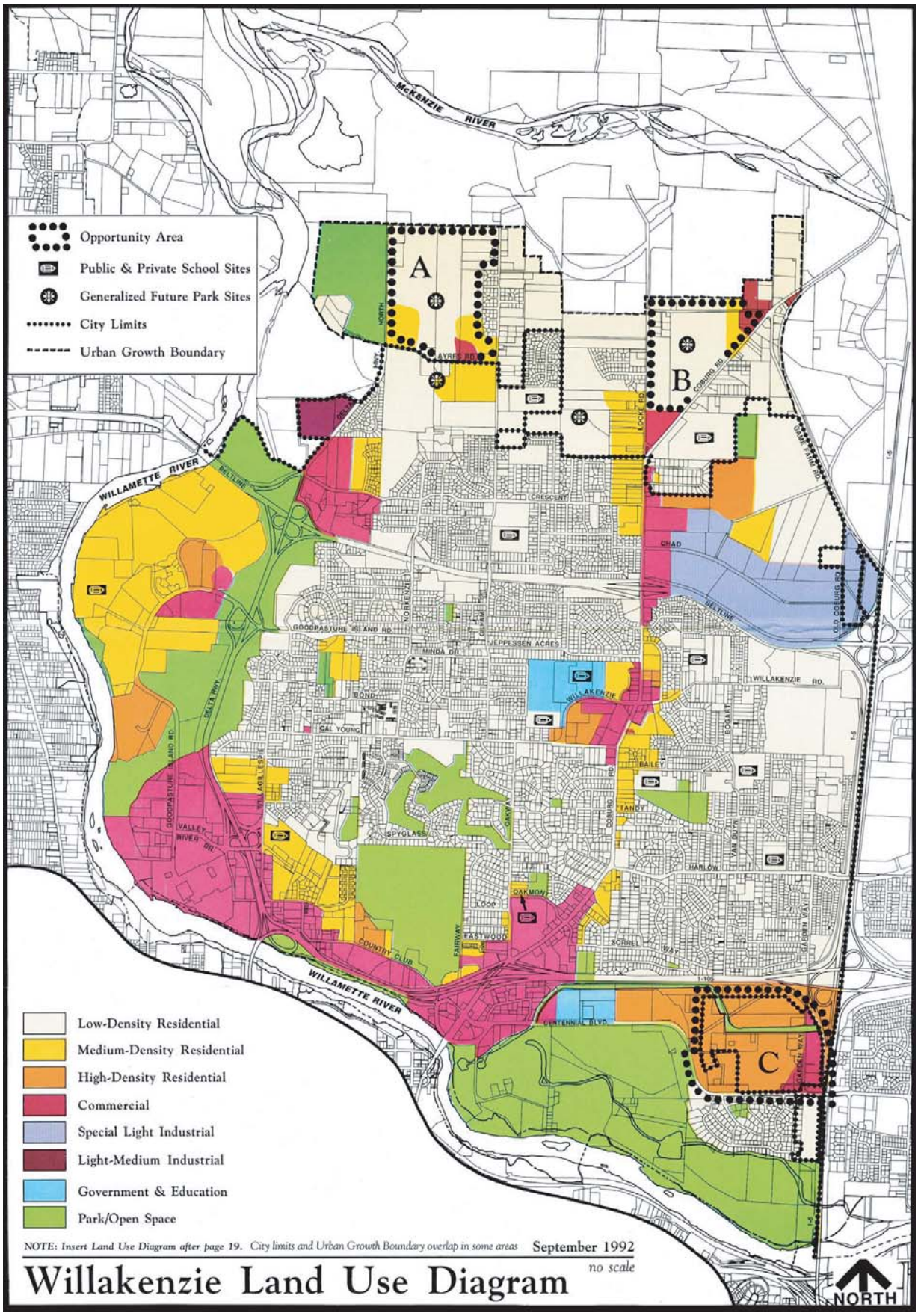

Figure 4

Interchange Area Management Plan
I-5/Beltline Interchange

- **Plan Section: Community and Economic Development**

  Goal 2a. Enhance opportunities for industrial, commercial, recreational, and tourism-related property to be developed, redeveloped, improved, rehabilitated, conserved and protected in ways that will:

  a. ensure that public improvements and infrastructure in the Refinement Plan area are sufficient to accommodate current and future development, while mitigating any adverse impacts of such development on residential, school, park, and other uses. (Page 10).

- **Plan Section: Residential Element; Policies and Implementation Actions**

  Policy and Implementation Action 13.7. Master Plans for property at the McKenzie-Gateway MDR site that proposes to apply the MUC and/or MS zoning district pursuant to Residential Policies and Implementation Actions 12.1 and 12.6 shall be subject to the following requirements:

  1. An approved trip monitoring plan shall be a requirement of Master Plan approval.
  2. The trip monitoring plan shall demonstrate compliance with all conditions contained within applicable plan amendment adoption ordinance(s), and trip-generation estimates shall be performed using assumptions and methods which are consistent with those employed in the plan amendment traffic impact analysis.
  3. Traffic generated by land uses within the Master Plan boundaries where the MS and MUC zoning districts that are proposed in Phase 1 of the Development shall, prior to 2010, be limited to a maximum of 1,457 vehicle trips. Beginning in 2010 for Phase 2 of the Development, traffic generated from site development within the subject districts shall be limited to 1,840 PM Peak-Hour vehicle trips. Vehicle trips are defined as the total of entering plus exiting trips as estimated or measured of the PM Peak Hour of Adjacent Street Traffic. This trip monitoring plan limits allowed land uses to be consistent with the planned function, capacity and performance standards of affected transportation facilities.
  4. Subsequent Site Plan Review applications for sites within the Master Plan boundaries shall be in compliance with the approved trip monitoring plan.
  5. Any proposal that would increase the number of allowable PM Peak Hour vehicle trips for the MS and MUC area beyond the limits specified in section 3 above shall be processed as a refinement plan amendment, a zoning map amendment or Master Plan approval pursuant to SDC 37.040 or modification pursuant to SDC 37.040 and 37.060(3) and regardless of which type of process is sought, each shall demonstrate compliance with applicable provisions of the Transportation Planning Rule for such proposal. (GRP Text Amendments, Jo. No.'s 2002-08-244)

- **Plan Section: Transportation Element; Goals**

  Goal 5: Reduce future traffic congestion, air pollution, and noise by establishing Transportation Demand Management (TDM), Transportation Supply Management (TSM), and Traffic Reduction Ordinances (TRO) Programs. (Page 48).

- **Plan Section: Transportation Element; Policies and Implementation Actions**

  Policy and Implementation Action 4.0: Limit access to minor arterials as redevelopment occurs. (Page 49).

  Policy and Implementation Action 4.1: Encourage the use of joined driveways during the site plan review process. (Page 49).

Policy and Implementation Action 4.2: Require large subdivisions or retail outlets with direct access on arterial roads to use "right in right out" drives as appropriate. (Page 49).

Policy and Implementation Action 13.0: Future transportation system development in the McKenzie-Gateway Campus Industrial and the 180 acre MDR sites should occur as needed in conjunction with CI and MDR, MUC and MS development. (Amended, Page 51).

Policy and Implementation Action 13.3: Upgrade Beltline Road between Gateway and Game Farm Road, widening as needed, including sidewalks only between Gateway Street and Hutton Way, and excluding bicycle lanes. (Page 51).

Policy and Implementation Action 13.4: Upgrade Game Farm Road North between Belt Line and I-5 overcrossing to urban standards, including sidewalks and bike lanes. (Page 51).

Policy and Implementation Action 13.6: Through the site plan review process, ensure that all plans for development of the McKenzie-Gateway SLI and 180-acres MDR sites plan for and maintain the opportunity to achieve efficient and effective road systems. (Page 51).

Policy and Implementation Action 13.7: Implement the following road system improvements, consistent with the recommendations of the Gateway Neighborhood Transportation System Analysis, and proposed TransPlan amendments needed to incorporate them into the TransPlan project list: Develop a collector road that connects the extensions of Beltline Road and Raleighwood Avenue; Extend Beltline Road eastward, mitigating the impact on existing homes to the maximum extent practical, to connect with the McKenzie-Gateway MDR Area's collector system; Develop an east-west collector within the McKenzie-Gateway SLI site. (Page 52).

Policy and Implementation Action 16.0: Explore the feasibility of a Transportation Demand Management program to reduce demand on the transportation system. (Page 52).

Policy and Implementation Action 18.0: Explore the possibility and feasibility of providing incentives for employers who encourage their employees to commute to work in ways other than driving along during morning and afternoon peak travel periods. (Page 52).

Policy and Implementation Action 19.0: Establish Traffic Reduction Ordinances in the future to reduce peak hour vehicle trip generation by major employers in the area. (Page 52).

(7) Gateway Refinement Plan Map, as amended through September 30, 2005

The portion of the current Gateway Refinement Plan Map (Figure 5) within the IAMP Interchange Management Area is part of this IAMP. The legal version of this map, on September 30, 2005, describes the planned land uses east of Interstate 5 that are relied on for this IAMP.

(8) Springfield Development Code

The Springfield Development Code (SDC) is a stand-alone document, available from the City of Springfield. The SDC contains permitted uses by zone district. The allowed uses by zone district, on September 30, 2005, within the IAMP Interchange Management Area are a part of this IAMP. The complete list of those allowed uses is found in Appendix C.

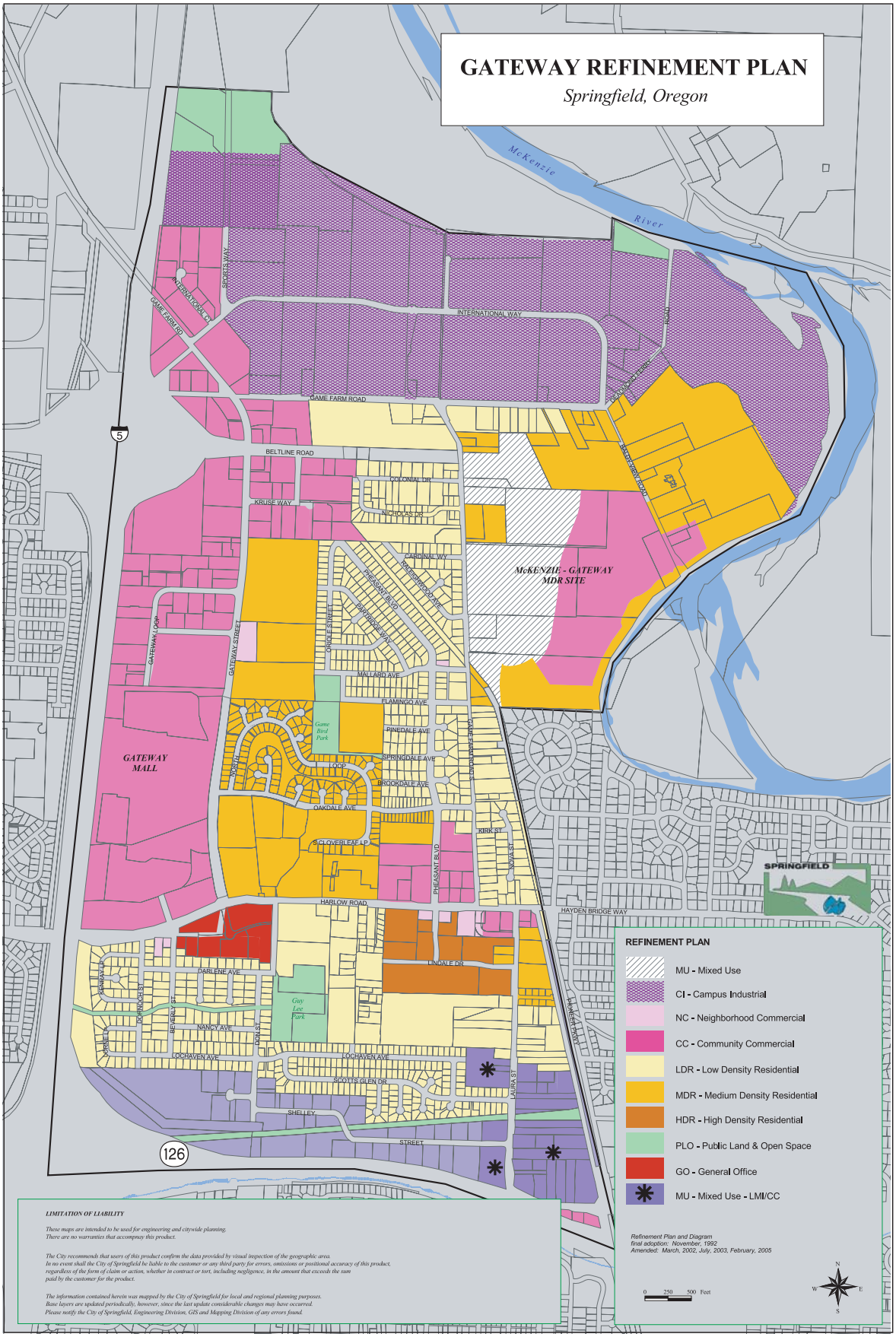

Figure 5

Interchange Area Management Plan
I-5/Beltline Interchange

The following citations from the Springfield Development Code work to promote interchange capacity protections or long-term interchange management tools, and are part of the IAMP:

- **Discretionary Uses**

  Criteria. 10.030(2). A Discretionary Use proposal may also be required to comply with the following Site Plan Review criteria of approval in accordance with Section 31.060 of this Code:

  (b) Proposed on-site and off-site public and private improvements are sufficient to accommodate the proposed development as specified in Articles 31, 32, the appropriate zoning and/or zoning overlay district Article and any applicable refinement plan.

  (d) Parking areas and ingress-egress points have been designed so as to facilitate traffic and pedestrian safety, to avoid congestion and to minimize curb cuts on arterial and collector streets as specified in Articles 31, 32, the appropriate zoning and/or zoning district Article and any applicable refinement plan.

  Discretionary Use Criteria for Multi-Unit Developments. 10.035(10)(b)(4). Where practicable, consolidate or share driveways and internal streets with driveways or internal streets serving abutting sites.

- **Multi-Unit Design Standards**

  Vehicular Circulation. 16.110(4)(i)(2). Shared driveways shall be provided whenever practicable to minimize cross turning movements on adjacent streets. On-site driveways and private streets shall be stubbed to abutting MDR/HDR properties, at locations determined during Site Plan Review process to facilitate development of shared driveways.

- **Minimum Development Standards**

  Site Plan Review – Information Requirements. 31.050(3). An Access, Circulation and Parking Plan complying with the standards of this Code.

  Site Plan Review – Criteria. 31.060(3). Parking areas and ingress-egress points have been designed to: facilitate vehicular traffic, bicycle and pedestrian safety to avoid congestion; provide connectivity within the development area and to adjacent residential areas, transit stops, neighborhood activity centers, and commercial, industrial and public areas; minimize curb cuts on arterial and collector streets as specified in Articles 31, 32, the appropriate zoning and/or zoning overlay district Article and any applicable refinement plan; and comply with the ODOT access management standards for state highways.

- **Article 32. Public and Private Improvements**

  Streets – Public. 32.020(1)(a). The street system shall ensure efficient traffic circulation that is convenient and safe.

  32.020(1)(a)(1)(a). Streets shall be designed to efficiently and safely accommodate all modes of travel including emergency fire and medical service vehicles.

  32.020(1)(a)(1)(c). Streets shall be interconnected to provide for the efficient provision of public facilities and for more even dispersal of traffic.

  32.020(1)(a)(1)(g). The street design shall enhance the efficiency of the regional collector and arterial street system by providing relatively uniform volumes of traffic to provide for optimum dispersal.

32.020(1)(c). A developer may be required to prepare a Traffic Impact Study to show how the design and installation of on-site and off-site improvements will minimize identified traffic impacts. The study shall be included with a development application, in any of the following instances:

1. When requesting a Variance from the transportation specifications of this Code.
2. When a land use will generated 250 or more vehicle trips per day in accordance with the current version of the Institute of Transportation Engineers Trip Generation Informational Report. Descriptions of the requirements of a minor/major Traffic Impact Study are described in the Department of Public Works Standard Operating Procedures.
3. When the installation of traffic signals may be warranted.
4. The Public Works Director may require a Traffic Impact Study for a land use when the proposed development creates a hazardous situation or degrades existing conditions to an unacceptable level of service.
5. The Public Works Director will determine the nature and the extent of the TIA requirements relating to the number of trips associated with a specific development and potential traffic hazards.

- **Subdivision Standards**

  Tentative Plan – Criteria for Approval. 35.050(4). Parking areas and ingress-egress points have been designed to: facilitate vehicular traffic, bicycle and pedestrian safety to avoid congestion; provide connectivity within the development area and to adjacent residential areas, transit stops, neighborhood activity centers, and commercial, industrial and public areas; minimize curb cuts on arterial and collector streets as specified in Articles 31, 32, the appropriate zoning and/or zoning overlay district Article and any applicable refinement plan; and comply with the ODOT access management standards for state highways.

- **Master Plan Standards**

  Criteria – 37.040(2). The request as conditioned conforms to the applicable Springfield Development Code requirements, Metro Plan policies, functional or refinement plan policies, applicable state statutes and administrative rules.

  Criteria – 37.040(3). Proposed on-site and off-site public and private improvements are sufficient to accommodate the proposed phased development and any capacity requirements of public facilities plans; and provisions are made to assure construction of off-site improvements in conjunction with a schedule of the phasing.

- **General Development Standards for Mixed-Use Districts.**

  Street Connectivity and Internal Circulation. 40.100(5). In mixed use developments:

  (a) Streets and accessways of any one development or site shall interconnect with those of adjacent developments or sites . . .

(9) Eugene Development Code

The Eugene Land Use Code is Chapter 9 of the City's municipal code (Eugene Code). Chapter 7 of the municipal code is the Public Improvements code section. The Eugene Code contains permitted uses by zone district. The allowed uses by zone

district, on September 30, 2005, within the IAMP Interchange Management Area are a part of this IAMP. The complete list of those allowed uses is found in Appendix D.

The following citations from the Eugene Development Code work to promote interchange capacity protections or long-term interchange management tools, and are part of the IAMP:

- **Standards for Streets, Alleys and Other Public Ways**

  Street Connectivity Standards. 9.6815(2)(b). The proposed development shall include street connections in the direction of all existing or planned streets within ¼ mile of the development site. The proposed development shall also include street connections to any streets that abut, are adjacent to, or terminate at the development site. Secondary access for fire and emergency medical vehicles is required.

- **Traffic Impact Analysis Review**

  Applicability. 9.8670. Traffic Impact Analysis Review is required when one of the following conditions exists:

  (1) The development will generate 100 or more vehicle trips during any peak hour as determined by using the most recent edition of the Institute of Transportation Engineer's Trip Generation Manual. In developments involving a land division, the peak hour trips shall be calculated based on the likely development that will occur on all lots resulting from the land division.

  (2) The increased traffic resulting from the development will contribute to traffic problems in the area based on current accident rates, traffic volumes or speeds that warrant action under the city's traffic calming program, and identified locations where pedestrian and/or bicyclist safety is a concern by the city that is documented.

  (3) The city has performed or reviewed traffic engineering analyses that indicated approval of the development will result in levels of service of the roadway system in the vicinity of the development that do not meet adopted level of service standards.

  (4) For development sites that abut a street in the jurisdiction of Lane County, a Traffic Impact Analysis Review is required if the proposed development will generate or receive traffic by vehicles of heavy weight in their daily operations.

  Approval Criteria. 9.8680. The planning director shall approve, conditionally approve, or deny an application for Traffic Impact Analysis Review following a Type II process, or as part of a Type III process when in conjunction with a CUP or PUD. Approval or conditional approval shall be based on compliance with the following criteria:

  (1) Traffic control devices and public or private improvements as necessary to achieve the purposes listed in this section will be implemented. These improvements may include, but are not limited to, street and intersection improvements, sidewalks, bike lanes, traffic control signs and signals, parking regulation, driveway location, and street lighting.

IV. The PeaceHealth Trip Limit as set forth in amendments to the Gateway Refinement Plan is intended to protect the Project investment. Trip limit language from the PeaceHealth Post Acknowledgement Plan Amendment (PAPA) is included above in subsection (5) Gateway Refinement Plan, November 1992, and Gateway Refinement Plan Text Amendments (Jo.No.

2002-08-244), 1/10/05 (City of Springfield) Plan Section: Residential Element; Policies and Implementation Actions, Policy and Implementation Action 13.7.

V. The Intergovernmental Agreement (IGA #20525, May 14, 2003) between the City of Springfield and ODOT addressing the Gateway/Beltline intersection improvements in relation to the Project (both the local system improvements and the interchange improvements are considered in the EA). Interstate 5, and Beltline Highway from the Gateway/Beltline intersection east to the Beltline/Coburg Rd. interchange, are fully access controlled facilities. The IGA is included as Appendix A.

Plan Implementation

This section clarifies IAMP plan implementation. Because the Project was designed to accommodate traffic anticipated by existing local plan policies[1], no additional changes to these local plan policies are necessary to implement this IAMP.

Appendix F contains letters from both Eugene and Springfield stating agreement that the local plan and code provisions described in this Section, as currently adopted, satisfy the purpose and intent of the IAMP.

The Transportation Planning Rule, (at OAR 660-012-0015) requires that state and local transportation plans be consistent. Once adopted by the Oregon Transportation Commission (OTC) as an ODOT Facility Plan that implements the Oregon Highway Plan, this IAMP will be consistent with the local plan and code provisions described in this section. Should either Eugene or Springfield desire to amend the existing policies or code provisions relied on for this IAMP, then it will be necessary for ODOT to review the proposed code or plan amendments to insure that these remain consistent with the IAMP.[2] Where ODOT finds that proposed plan or code amendments are not consistent with the IAMP, then ODOT and the relevant jurisdictional partner(s) must work together to reach agreement on methods and mechanisms to resolve conflicts. Implementation of the agreed upon solution(s) may require amendments to local plans and codes, or to this IAMP, or both.

[1] PeaceHealth Post Acknowledgement Plan Amendments came after the EA was completed. However, the implementation of the PeaceHealth Trip Limit provided reasonable assurance at the time of those amendments that land use changes necessary to develop PeaceHealth's RiverBend Regional Medical Center complex would not shorten the Project's operational design life.

[2] It is understood that any proposed change of zoning to be consistent with the MetroPlan Diagram and either the Willakenzie Land Use Diagram or Gateway Refinement Plan Map (plan designations) in existence on September 30, 2005 is consistent with this IAMP.

SECTION 3

Findings

Introduction

The I-5/Beltline IAMP Findings section is divided into two subsections. The first addresses the I-5/Beltline Interchange Project's (Project) consistency with Federal and State plans, policies and rules. The second subsection addresses Project consistency with applicable regional and local plan policies.

Federal and State Plans, Policies, and Rules

Through the alternative development and screening process of the environmental assessment, the Project has been found to be in compliance with relevant federal and state planning goals and plans, and their implementing administrative rules. These include the National Environmental Policy Act, Federal Interchange Policy (1998), Statewide Planning Goals, Oregon Transportation Plan (1992), Oregon Highway Plan (1999), Freight Moves the Oregon Economy (1999), Transportation Planning Rule, and Access Management Rule. The EA also addressed the project's need to comply with provisions of the OAR 660-012 (Transportation Planning Rule) and OAR 734-051 (Access Management Rule) relating to interchange area and access management.

National Environmental Policy Act, Pub. L. 91-190, 42 U.S. Code 4321- 43478

Impacts to the natural and human environments were fully evaluated in compliance with National Environmental Policy Act (NEPA) requirements. Results of the environmental impacts analysis—including information on noise, air quality, natural resources, and other issues—were documented in an Environmental Assessment prior to the selection of the Project.

Solutions for the transportation system are required to satisfy travel demand for a 20-year planning horizon. Solutions may be implemented in phases to accommodate incremental improvements throughout the 20-year planning period. It will be necessary to prove continuing validity of the environmental assessment for implementation of subsequent phases.

Findings: The May 2002 Environmental Assessment (EA) and the signed July 2003 Revised Environmental Assessment (REA) satisfy NEPA requirements.

1998 Federal Interchange Policy, 23 U.S. C. 315; 49 CFR 1.48

The purpose of the Federal Interchange Policy is to provide guidance to state transportation officials in justifying and documenting requests to add access or revise existing access to the interstate system. This policy defines eight specific requirements for adding or revising a new access to the interstate system:

- Existing interchanges cannot satisfy design year traffic requirements.
- All transportation system management (TSM) improvements have been assessed. TSM includes activities that maximize the efficiency of the present system. TSM improvements might include such measures as ramp metering and high-occupancy vehicle lanes.
- The proposed access point does not have a significant adverse impact on the safety and operation of the interstate facility.
- The proposed access connects to a public road only.
- The proposed access is consistent with local and regional land use and transportation plans.
- Where the potential exists for multiple interchange additions, requests for new access are supported by an interstate network study.
- The revised access demonstrates appropriate coordination with related or required transportation system improvement.
- The request contains information relative to the planning requirements and the status of the environmental processing of the proposal.

Revised access points must be coordinated with the District Office of the FHWA and must be closely coordinated with planning and environmental processes. Major changes in access must be approved through the central office of FHWA in Washington DC. Under this policy, revised access is considered to be a change in the interchange configuration even though the actual number of points of access does not change.

Findings: As concluded in the EA, the Project meets each of the eight requirements spelled out in the policy and will accommodate design-year traffic demands as a threshold.

Statewide Planning Goals

Relevant statewide planning goals include Goal 2 (Land Use Planning), Goal 11 (Public Facilities Planning), Goal 12 (Transportation) and Goal 14 (Urbanization). Goal 2 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. 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. Goal 12 requires cities, counties, metropolitan planning organizations, and ODOT to provide and encourage a safe, convenient and economic transportation system; this is the Goal implemented through the Transportation Planning Rule. Goal 14 regulates activities within urban growth boundaries.

The Eugene-Springfield Metropolitan Area General Plan (MetroPlan) and implementing measures have been acknowledged by the Oregon Department of Land Conservation and Development (DLCD) as being in compliance with the Statewide Planning Goals. TransPlan, the transportation element of Metro Plan, was adopted by the Lane Council of Governments Board in June 2001 and by the local jurisdictions in the fall of 2001, effective November 31, 2001, and published as the December 2001 TransPlan. TransPlan has also been

acknowledged by the DLCD. TransPlan includes the planned I-5/Beltline interchange upgrade.

Findings: The Project is listed in TransPlan. The Project's inclusion in TransPlan, the MetroPlan transportation refinement plan, demonstrates project compliance with Statewide Planning Goals because both the TransPlan and MetroPlan have been acknowledged.

1992 Oregon Transportation Plan

The Oregon Transportation Plan (OTP) sets broad policies for the state transportation system. The I-5/Beltline Project was developed to be consistent with the Oregon Transportation Plan – specifically, the Oregon Highway Plan, which is a modal element of the OTP (see next section). The purpose of the OTP is to guide the development of a safe, convenient, and efficient transportation system that promotes economic prosperity and livability for all Oregonians. The OTP designates I-5 as an important part of the transportation system and notes its importance for the freight system. The plan defines a minimum level of service (now termed mobility standard) for highways that vary by metropolitan areas. The OTP does not specifically address improvements to I-5 but offers a broad policy framework and standards for improving state highway systems.

The OTP encourages improvements to local transportation systems that allow local traffic to navigate communities without having to use the state highway system. Among other general issues relating to highway systems, the OTP identifies the need to establish Intelligent Vehicle Highway Systems (now termed Intelligent Transportation Systems or ITS) on I-5 and other highways to increase system capacity, improve motorist information, and improve travel efficiency. The OTP also promotes highway safety standards for trucks and truck operators and the maintenance, preservation, and improvement of the highway system in good order to provide infrastructure for the efficient movement of goods by freight.

Findings: The Project is consistent with the OTP because it adds capacity and makes safety improvements to the existing interchange to provide safe and efficient movement of people and freight.

1999 Oregon Highway Plan (as Amended)

The Oregon Highway Plan (OHP) is a modal element of the OTP. It addresses the following issues:

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

The OHP designates I-5 as part of the National Highway System and as a designated freight route between the California and Washington borders.

The OHP sets interchange spacing requirements, investment priorities, access management policy, and mobility standards for freeway interchanges such as I-5/Beltline. The interchange spacing standards in the OHP for an interstate freeway to freeway connection are the same as those of the Federal Interstate Policy—3 miles in an urban area, and 6 miles in a rural area. The OHP highway mobility standards for different highway categories use volume to capacity (v/c) ratios to measure performance. For interstate highways, including I-5, the v/c ratio in rural areas is 0.70, compared to 0.80 inside an urban growth boundary within a Metropolitan Planning Organization) (MPO). Beltline Highway west of I-5 is also managed to an OHP mobility standard of 0.80. Beltline Highway between I-5 and Gateway Street to the east is managed to a v/c of 0.85. Under limited funding scenarios, the Major Investment Policy, which is part of the OHP, stipulates that infrastructure improvements will be undertaken only to address critical safety problems and critical levels of congestion. Transportation studies for the I-5/Beltline interchange show that safety and congestion will be critical within the design horizon.

The (OHP) includes several policies that were addressed during development of the I-5/Beltline Interchange Project. The policies applicable to this project and most relevant to Plan findings are discussed below. In many cases, the information presented for a particular policy is also relevant to other policies discussed.

Policy 1A: State Highway Classification System.

This policy categorizes the state highways to guide planning, management, and investment decisions regarding state highway facilities. The policy declares Interstate Highways are major freight routes and their objective is to provide mobility; the management objective is to provide for safe and efficient high-speed continuous-flow operation in urban and rural areas. Statewide Highways primarily provide inter-urban and inter-regional mobility and connections to larger urban areas, and secondarily provide for intra-urban and intra-regional trips. The management objective is the same as Interstate Highways, except in constrained and urban areas where interruptions to flow should be minimal.

Findings: I-5 is an Interstate Highway; Beltline Highway west of I-5 is a Highway of Statewide Significance and a designated Freight Route. Beltline Highway between I-5 and Gateway Street is classified as a Regional Highway. Beltline Road east of Gateway Street is owned by the City of Springfield and is an Urban Arterial. The Project meets OHP classification and management objectives for the I-5/Beltline Interchange by improving safety and adding capacity to address mobility deficiencies.

Policy 1B. Land Use and Transportation.

This policy recognizes that State and local governments must work together and share responsibility for the road system while providing safety, efficiency, livability, and economic viability for all citizens. The land use and transportation policy addresses the relationship between the highway and patterns of development both on and off the highway. It emphasizes development patterns that maintain state highways for regional and intercity mobility, and compact development patterns that depend less on state highways than linear development for access and local circulation.

The Eugene-Springfield Metropolitan Area General Plan (MetroPlan) includes the Eugene-Springfield Transportation System Plan (TransPlan) as a transportation refinement plan. The TransPlan, Gateway Refinement Plan, and Willakenzie Area Plan were reviewed for potential conflicts with the Project, including any conflicts that would require a conditional use permit or other plan amendment. In addition, the Project was developed with consideration of how these various plans would reduce reliance on the automobile. Regional studies reviewed included the Willamette Valley Transportation Strategy, Commuting in the Willamette Valley, and the Bus Rapid Transit Concept-Major Investment Study Final Report.

Findings: The Project is consistent with local land use and transportation plans (i.e., MetroPlan, TransPlan, Gateway Refinement Plan, and Willakenzie Area Plan). These plans in turn are consistent with Policy 1B in that they promote the orderly development of land and compact development patterns, and encourage the availability and use of transportation alternatives.

Through the environmental process, culminating with the signing of the REA, transportation modeling used for this project was consistent with TransPlan, including the fundamental land use assumptions from MetroPlan and the relevant functional plans (Gateway Refinement Plan and Willakenzie Area Plan). To determine the timing of local improvements contained in the interchange improvement project, the Oregon Department of Transportation and the City of Springfield entered into an Intergovernmental Agreement (IGA) to monitor conditions and implement phases of this project. The IGA is made part of the I-5/Beltline IAMP by reference and included herein as Appendix A.

The local regional transportation system plan (TransPlan) identifies a need for additional transportation improvements to support planned land use in the project area. As part of its projection, TransPlan includes modeling of specific transportation demand management (TDM) measures, including bus rapid transit (BRT). The TDM measures that were developed in the TransPlan process were factored into the transportation analysis for this project through the use of Lane Council of Governments' (LCOG) TransPlan travel demand model. Transportation modeling also specifically considered a financially constrained system, programmed and unprogrammed projects, and the differences in traffic patterns and volumes with and without the City of Springfield Martin Luther King Jr. Parkway Extension project.

ODOT also worked closely with the City of Springfield to evaluate the PeaceHealth plan amendment/zone change application to permit the RiverBend Regional Medical Center complex (PeaceHealth Hospital and other facilities) development according to Goal 12, the Transportation Planning Rule (TPR), and the Gateway Refinement Plan goals and policies. Through this process, the City adopted a trip limit for PeaceHealth land being changed from residential to medical services and commercial uses to ensure that the land use decisions would not cause the I-5/Beltline Interchange to operate below the adopted State performance standards, or to operate in such a way as to create a safety hazard to those using the facility through 2025. Language reflecting the locally adopted trip limit is found in Section 2, (5) Gateway Refinement Plan, and is adopted by this IAMP.

Policy 1C: State Highway Freight System.

This policy balances the movement of goods with other highway uses and recognizes the importance of maintaining through movement on major truck freight routes.

Findings: Interstate 5 and Beltline Highway west of I-5 are adopted freight routes in the OHP. The interchange improvements will add capacity and correct geometric deficiencies to continue to support implementation of this policy.

Policy 1G: Major Improvements.

This policy directs ODOT and local jurisdictions to protect and improve the efficiency of the highway system before adding new highway facilities. Action 1G.1, which takes precedence over the other actions in Policy 1G, includes the following prioritized list of improvement measures:

1. Protect the existing system
2. Improve efficiency and capacity of existing highway facilities
3. Add capacity to the existing system
4. Add new facilities to the system

Findings: The I-5/Beltline Interchange Project does not add new facilities to increase capacity but rather helps avoid or delay the need to add new facilities (for example, a new interchange, highway, or bypass) to the system. The selected build alternative applies Measure 3 (above) and satisfies Policy 1G and Action 1G.1 of the OHP in that the higher priority Measures 1 and 2 already have been implemented as follows:

Measure 1: Protect the Existing System. Actions to protect the existing system per Measure 1 have been exhausted. The immediate area surrounding the interchange is now almost fully developed, and access to I-5 and the cross road (Beltline Highway) is currently fully controlled. Transportation Demand Management (TDM) measures in TransPlan include ridesharing, alternative modes, and mass transit. Demand management elements were factored into the project transportation analysis through the use of LCOG's TransPlan travel demand model. The analysis showed that the highest attainable levels of TDM as provided in TransPlan would provide very little reduction in vehicular traffic at the I-5/Beltline Interchange (*Transportation Operational Analysis Report for the I-5/Beltline Interchange,* ODOT, November 2001).

The current and projected v/c ratios for key elements of the interchange area confirm that measures beyond protection of the existing system are needed. By 2025, the I-5/Beltline Highway major weaving sections between entrance and exit ramps on both facilities are expected to fail, along with most of the major intersections in the study area. These problems cannot be solved through improvements to traffic operations, such as signal timing optimization. With no capacity improvements all but two of the study area intersections will fail by 2025. Traffic demands at the signalized Beltline/Gateway Intersection are expected to increase the v/c ratio to 1.68 (LOS F) for several hours, and traffic would back up along all four of the intersection's approaches during peak travel times. These conditions would also impact movements on several of the I-5/Beltline Interchange ramps. Traffic backed up along the I-5 off-ramps could extend to the freeway itself, resulting in unsafe conditions on the interstate. Vehicle backups at the Beltline/Gateway Intersection would extend 500 feet to the west, affecting I-5's northbound

off-ramp operations and impeding eastbound traffic flow along Beltline Highway. Without improvements, northbound backups would extend approximately 1,100 feet to the south, blocking driveways along Gateway Street.

Measure 2: Improve Efficiency and Capacity of Existing Highway Facilities. Minor improvements consistent with Measure 2 have already been implemented for this area. The efficiency and capacity of the existing facilities have been improved and maximized through the addition of auxiliary lanes to I-5, and northbound exit ramp reconfiguration in 1994.

Transportation studies for the I5/Beltline Interchange (see *Transportation Operational Analysis Report for the I-5/Beltline Interchange,* ODOT, November 2001) show that safety and capacity issues cannot be effectively resolved through any typical transportation system management (TSM) measures such as ramp metering, HOV lanes, or fringe parking.

Measure 3: Add Capacity to the Existing System. Major roadway improvements that add capacity to the existing highway facilities to resolve the geometric, operational, and safety deficiencies of the I-5/Beltline Interchange and Beltline Highway are required, as noted above. I-5 north of Beltline and several of the intersections adjacent to the interchange are currently operating over volume-to-capacity standards. The TDM/TSM methods of Measures 1 and 2 alone have not eliminated the need for making major improvements that add capacity to the system, per Measure 3. These improvements are the focus of the proposed I-5/Beltline Interchange Project.

The proposed interchange form consists of a partial cloverleaf-A (loop ramps in advance of the overcrossing structure of I-5) with single exit and entrance ramps from and to the I-5 mainline. The highest volume movement is a high speed directional ramp for northbound I-5 to westbound Beltline movement. Off-roadway bicycle/pedestrian facilities are proposed parallel to I-5 connecting to Game Farm Road West to the north and Harlow Road to the south. A bicycle/pedestrian overcrossing of I-5 providing connectivity from Eugene to Springfield at Postal Way is also proposed.

The Project adds capacity to the existing system.

Policy 2F: Traffic Safety.

It is the policy of the State of Oregon to continually improve safety for all users of the highway system.

During the 4-year period from January 1994 through December 1998, more than 175 crashes in the I-5/Beltline Interchange area were reported to ODOT. These included crashes on the I-5 mainline, the interchange ramps, and Beltline Highway up to but not including the Beltline/Gateway Intersection. About 67 percent of the crashes involved injuries to some extent, including one pedestrian fatality. The ratio of daytime to nighttime accidents was 2.5 to 1. ODOT's 1999 safety improvement project that added a channelized northbound freeway exit lane with auxiliary lane to Gateway to the interchange was intended to make intersection operational improvements at eastbound Beltline Road and Gateway Street. About 64 of the reported crashes, or 37 percent, may have been avoided during the reporting period had the improvements been in place earlier. This interchange area's crash rate is in the state's highest 10 percent of all crash locations.

Findings: The selected build alternative improves traffic safety per Policy 2F, implements cost-effective solutions per Action 2F.1, and includes a monitoring and evaluation process per Action 2F.2. Because the selected build alternative would result in improved v/c ratios that will be within the mobility standards for the interchange weaving areas and ramp junctions (see Table 4-11 of the EA), improvements in traffic safety are anticipated. Information provided below substantiates these findings.

Action 2F.1 requires an improvement project to develop and implement the most cost-effective solutions to high priority safety problems. A Value Engineering (VE) study provided an independent peer review and analysis of the project designs to determine if there were more economical or efficient means of achieving project goals. The VE Study recommended a number of revisions to the Build Alternative and Intersection Options that were advanced for public comment and review in the environmental assessment. The results of the study show reduced right-of-way costs and improved traffic circulation patterns. The VE Study recommended the construction of public access roads in the quadrant north of Beltline Road and east of Gateway Street. VE Option A-10 for Intersection Option 3 was selected. With this option there would be no access from the north leg of the signalized Beltline/Hutton Intersection.

Action 2F.2 of the Traffic Safety policy applies because safety is a stated objective of the I-5/Beltline Interchange Project. The action requires the project to include goals and a process to evaluate the outcome and further refine the project selection and solution process. The Project is designed to reduce the above crash rate by improving v/c ratios (reducing congestion) and facilitating weave movements in the interchange area.

In addition, the IGA between ODOT and the City of Springfield (Appendix A) includes provisions for monitoring and phased implementation of the project. The intent of the IGA, along with the I-5/Beltline Project Monitoring and Implementation Plan, is to determine when capital improvements at and near the Beltline /Gateway Intersection will be required so as not to compromise the investment in the I-5/Beltline Interchange and to support safe and efficient traffic conditions within the interchange area for the design period. Once the interchange ramps are programmed in the STIP and the Martin Luther King Jr. Parkway Extension is constructed by the City of Springfield, ODOT and the City of Springfield will begin annual monitoring of two key criteria for the Beltline /Gateway Intersection. Specifically, Beltline Highway's traffic queues and v/c ratios will be measured to evaluate the effectiveness and efficiency, respectively, of the interchange and intersections.

Policy 3C: Interchange Access Management Areas.

This policy states that the State of Oregon will plan for and manage grade-separated interchange areas to ensure safety and efficient operation between connecting roadways. In addition, relevant provisions of Action 3C.2 of this policy require:

- Improving current conditions by moving in the direction of spacing standards.
- Access to cross streets shall be consistent with established standards on either side of the ramp connection.
- Urban interchange design will consider the need for transit and park-and-ride facilities, along with the effect on pedestrian and bicycle traffic.

Findings: The purpose of the Project is to address geometric, operational, and safety deficiencies in the interchange area, including intersection operations at the Beltline/Gateway Intersection.

The improvements proposed as part of this project are consistent with Policy 3C and Action 3C.2 as follows:

Because of the proximity of the Beltline/Gateway Intersection (625 feet)to the end of the I-5 northbound exit ramp intersection with Beltline, future traffic forecasts predict that the traffic queues at the local intersection will adversely affect the performance of the I-5/Beltline Interchange northbound ramp terminal. That is, under the year 2025 No Build alternative, vehicle backups at the Beltline/Gateway Intersection would extend 500 feet to the west, affecting I-5's northbound off-ramp operations and impeding eastbound traffic flow along Beltline Highway. Northbound backups would extend about 1,100 feet to the south, blocking driveways along Gateway Street. In addition, there is a great deal of local traffic concentrated at this intersection creating problems for bicycles, pedestrians and transit. AASHTO design principles were applied in combination with OHP policies regarding interchanges, mobility, major investments, and access management in developing the Project.

With the Project in place, 2025 design hour traffic backups extending from the Beltline/Gateway intersection would be contained between that intersection and each of its four adjacent signalized intersections. The Gateway/Kruse Way Intersection would allow southbound Gateway movements to bypass the traffic signal, eliminating southbound backups except for left-turning vehicles. The Beltline/Hutton Intersection 2025 design northbound traffic backup would extend about 925 feet to the south, but since Hutton would be one-way northbound, driveway movements would be improved.

Access management is governed by the City of Springfield in the Beltline/Gateway Intersection area, in accordance with the EA and ODOT/Springfield IGA (see Appendix A), although ODOT may exercise existing authority through the Oregon Transportation Planning Rule (TPR) to manage congestion and safety problems. The City of Springfield does call for access management along Gateway Street as part of the Gateway Refinement plan.

In coordination with State and City staff, accesses have been reviewed and preliminary access locations identified. Preliminary private access locations have been identified for elimination and consolidation to improve safety and operations. Final access locations will be agreed to between the City of Springfield and ODOT, as set forth in the ODOT/Springfield IGA.

1999 Freight Moves the Oregon Economy

As indicated in this publication, "Freight plays a major role in moving the Oregon economy. Most freight moves by truck, rail, waterway, air, and pipeline with truck accounting for the greatest volume of freight." Report information relevant to I-5 in the Eugene-Springfield Metro Area includes the following:

- Because the State's largest airports are located in four metropolitan areas along I-5, the majority of Oregon's in-state air traffic follows the I-5 corridor as well.

- Approximate daily truck volumes in the I-5 Corridor are:
  - 10,000 per day across the I-5 Willamette River Bridge
  - 10,000 to 15,000 per day in the Salem and Eugene areas

Recommendations are made for the construction of an intermodal rail/truck site in Eugene. Beltline Highway west of I-5 links I-5 to industrial properties and rail connections.

Findings: Improving the I-5/Beltline Interchange is consistent with proposed freight strategies that make improvements to existing facilities to reduce delay and eliminate travel barriers by adding capacity and correcting geometric deficiencies that impede safe truck travel. The Project is designed to accommodate the safe and efficient movement of freight both along I-5 in the project area and by improved connections to Beltline Highway. The IAMP will manage this important infrastructure investment to ensure that its capacity and function as an interchange between two designated OHP Freight Routes will last through the design period.

Transportation Planning Rule (Oregon Administrative Rule 660-012)

The Transportation Planning Rule (TPR) implements Statewide Planning Goal 12 (Transportation) and is intended to promote the development of safe, convenient and economic transportation systems that are designed to reduce reliance on the automobile. It also identifies how transportation facilities and services are planned for and provided on rural and urban lands consistent with state goals. Local and state transportation plans must comply with the TPR.

Findings: The Project is included in TransPlan, the locally adopted TSP for Eugene and Springfield. TransPlan has been acknowledged as consistent with Statewide Planning Goals and the Transportation Planning Rule. The IAMP for this interchange is the management tool for the I-5/Beltline interchange improvements.

Access Management Rule (Oregon Administrative Rule 734-051)

OAR 734-051 implements ORS 374.310 and state policy (OHP) related to access management spacing standards in an interchange area and access management plans for IAMPs. This rule applies to the location, construction, maintenance and use of approaches onto the state highway rights-of-way and properties under the jurisdiction of ODOT. The rule also governs closure of existing approaches, spacing standards, medians, deviations, appeal processes, grants of access and indentures of access.

Findings: The IAMP compliance table found in Appendix E lists each relevant OAR 734-051 requirement and how these requirements are met by the I-5/Beltline Interchange Project and this IAMP.

Regional and Local Plans and Policies

Regional and local planning documents relevant for the I-5/Beltline Interchange Project include the MetroPlan, TransPlan and the Gateway Refinement Plan. The Project is consistent with relevant MetroPlan, TransPlan and Gateway Refinement Plan policies.

1987 Eugene-Springfield Metropolitan Area General Plan (MetroPlan)

Land Use and Economic Policies

Plan Section: II.C – Growth Management Goals, Findings and Policies
Subsection: Policies

Policy II.C.3: Control of location, timing and financing of the major public investments that directly influence the growth form of the metropolitan area shall be planned and coordinated on a metropolitan-wide basis.

Findings: This policy recommends a metropolitan-wide, coordinated planning approach to major public investments, such as the improvements like the I-5/Beltline interchange (Project). The Project was intentionally developed as a broad-based project planning effort that involved ODOT, FHWA, Lane County, the City of Springfield, the City of Eugene, and representatives from the public as part of the stakeholder working group for the project. The Project is consistent with this policy.

Policy II.C.25: When conducting metropolitan planning studies, particularly the Public Facilities and Services Plan, consider the orderly provision and financing of public services and the overall impact on population and geographical growth in the metropolitan area. When appropriate, future planning studies should include specific analysis of the growth impacts suggested by that particular study for the metropolitan area.

Findings: This policy supports planning studies that account for growth impacts in the metropolitan area. The I-5/Beltline IAMP is intended to manage the interchange area in a fiscally responsible manner in light of expected growth and traffic anticipated by existing plans.

The Project is consistent with this policy because development of the Project was based on information consistent with the land use planning documents and assumptions in the area, and identified projects and strategies in the IAMP are intended to accommodate the growth and land uses identified in local plans. Population and employment numbers were integrated into the planning and environmental process, and informed the direction of the Project process, including the selected preferred alternative. The IAMP's purpose is to protect investment in the interchange. Since the project design anticipates planned land use and associated traffic, the IAMP is also consistent with this policy.

Policy II.C.31. Eugene, Springfield, and Lane County shall continue to involve affected local governments and other urban service providers in development of future, applicable *MetroPlan* revisions, including amendments and updates.

Findings: The I-5/Beltline project is based on information and recommendations included in the MetroPlan and TransPlan. The environmental process involved local (Eugene, Springfield, Lane County), state and federal jurisdictions. This policy underscores the importance of continued coordination as MetroPlan revisions could affect other plans. In order to maintain compliance with this MetroPlan policy, Eugene, Springfield and Lane County must notify ODOT of any MetroPlan changes that could affect the design life of the Project. The project is consistent with this policy.

Plan Section: III.B – Economic Element
Plan Element: Economy

Policy III.B.18: Encourage the development of transportation facilities which would improve access to industrial and commercial areas and improve freight movement capabilities by implementing the policies and projects in the *Eugene-Springfield Metropolitan Area Transportation Plan (TransPlan)* and the *Eugene Airport Master Plan*.

Findings: The I-5/Beltline improvement project is listed in TransPlan. The project will improve access to commercial and light industrial areas both east and west of I-5 by improving interchange design and adding capacity. Geometric improvements also address deficiencies that have impacted freight mobility. The IAMP's purpose is to manage the interchange area to ensure that the interchange will meet the capacity requirements for the 20 year design period. The Project is consistent with this policy.

2002 Eugene-Springfield Metropolitan Area Transportation Plan (TransPlan)

TransPlan is adopted as a functional plan of the Eugene-Springfield Metropolitan Area General Plan (MetroPlan), and is consistent with the MetroPlan transportation element. As such, Oregon Statewide Planning Goals and the Transportation Planning Rule are applicable. TransPlan serves as the Transportation System Plan (TSP) for the City of Eugene, the City of Springfield and metropolitan Lane County. TransPlan is consistent with the Central Lane Metropolitan Planning Organization's Regional Transportation Plan (RTP), adopted December 2004.

TransPlan Goals and Objectives

Goal 1. Provide an integrated transportation and land use system that supports choices in modes of travel and development patterns that will reduce reliance on the automobile and enhance livability, economic opportunity, and the quality of life.

Goal 2. Enhance the Eugene-Springfield metropolitan area's quality of life and economic opportunity by providing a transportation system that is:

- Balanced,
- Accessible,
- Efficient,
- Safe,
- Interconnected,
- Environmentally responsible,
- Supportive of responsible and sustainable development,
- Responsive to community needs and neighborhood impacts, and
- Economically viable and financially stable.

Objective 1: Accessibility and Mobility. Provide adequate levels of accessibility and mobility for the efficient movement of people, goods, and services within the region.

Objective 2: Safety. Improve transportation system safety through design, operations and maintenance, system improvements, support facilities, public information, and law enforcement efforts.

Objective 4: Economic Vitality. Support transportation strategies that improve the economic vitality of the region and enhance economic opportunity.

Objective 6: Coordination/Efficiency. Coordinate among agencies to facilitate efficient planning, design, operation and maintenance of transportation facilities and programs.

Objective 7: Policy Implementation. Implement a range of actions as determined by local governments, including land use, demand management, and system improvement strategies, to carry out transportation policies.

Findings: These goals and objectives support a multimodal, integrated transportation system. The I-5/Beltline Project implements these goals and objectives because the identified improvements to the interchange preserve and enhance capacity, accessibility, economic vitality, mobility, and safety. The IAMP is also consistent with these TransPlan goals and objectives because it is intended to manage this important infrastructure investment in the I-5/Beltline interchange.

TransPlan Policies

TransPlan Policy: TSI System-Wide Policy #5 – TransPlan Project Lists
And MetroPlan Policy F-9: Adopt by reference, as part of the MetroPlan, the 20-year Capital Investment Actions project list contained in TransPlan. Project timing and estimated costs are not adopted as policy.

Findings: The design of the I-5/Beltline project (Project) is consistent with Project 606 for the I-5/Beltline Interchange as shown in TransPlan.

TransPlan Policy: TSI Roadway Policy #1 – Mobility and Safety for All Modes
MetroPlan Policy F-14: Address the mobility and safety needs of motorists, transit users, bicyclists, pedestrians, and the needs of emergency vehicles when planning and constructing roadway system improvements.

Findings: This policy emphasizes the need to address safety and mobility for all modes, which is consistent with the Project. As the IAMP's purpose is to mange the interchange to ensure that it continues to operate safely and at the adopted mobility standards through the design period, the IAMP is also consistent with this policy.

TransPlan Policy: Not included as specific TransPlan policy
MetroPlan Policy F-16: Promote or develop a regional roadway system that meets combined needs for travel through, within, and outside the region.

Findings: This policy supports regional system improvements that would contribute to the management of the interchange area (for example, the Martin Luther King Jr. Parkway Extension) by pulling trips away from the interstate system for north-south travel.

The IAMP is consistent with this policy because the intent of the IAMP is to protect interchange investment, and one way to accomplish investment protection is to promote a regional roadway system that places value on local travel and connections, thereby supporting interchange improvements designed for interstate mobility. The Project is consistent with this policy because it includes mechanisms to enhance local mobility and connectivity.

TransPlan Policy: TSI Goods Movement Policy #1 – Freight Efficiency
And MetroPlan Policy F-29: Support reasonable and reliable travel times for freight/goods movement in the Eugene-Springfield region.

Findings: This policy supports the intent of the Project to improve freight mobility at this interchange between two OHP designated freight routes, I-5 and Beltline Highway, west of I-5. The project is consistent with this policy, because it will enhance freight mobility. The IAMP will manage the interchange to ensure that freight capacity and mobility will be met through the design period, and is consistent with this policy as the intent of the IAMP is to protect an interchange investment that improves freight mobility.

Gateway Refinement Plan, November 1992, and Gateway Refinement Plan Text Amendments (Jo. No. 2002-08-244), 1/10/05 (Springfield)

Plan Section: Transportation Element

Goals:

Goal 1: Provide for a safe and efficient transportation system in the Gateway Refinement Plan area. (Page 48).

Goal 4: Plan and design an efficient and flexible transportation system for undeveloped lands within the Refinement Plan area to ensure minimum traffic impacts. (Page 48).

Findings: These goals support interchange management by promoting TDM and TSM, which are management tools that can help to preserve capacity. The IAMP is an interchange protection mechanism to protect an investment that has been designed to accommodate existing and planned development in the GRP and MetroPlan. Therefore, the Project and the IAMP are consistent with these goals.

SECTION 4

References

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Appendix A
Intergovernmental Agreement

INTERGOVERNMENTAL AGREEMENT

I-5 – Beltline Project: Monitoring and Implementation Plan

THIS AGREEMENT is made and entered into by and between THE STATE OF OREGON, acting by and through its Department of Transportation, hereinafter referred to as "ODOT"; and THE CITY OF SPRINGFIELD, acting by and through its elected officials, hereinafter referred to as "CITY".

RECITALS

1. This Intergovernmental Agreement applies to the selected alternative as described in the I-5/Beltline Interchange project Revised Environmental Assessment, including mitigation and implementation measures.

2. By the authority granted in ORS 190.110 and 283.110, state agencies may enter into agreements with units of local government or other state agencies for the performance of any or all functions and activities that a party to the agreement, its officers, or agents have the authority to perform.

3. Under such authority, ODOT and CITY enter into this agreement for purposes of identifying their respective duties and responsibilities in monitoring traffic conditions in the vicinity of the I-5-Beltline Interchange project identified above.

4. The I-5 – Beltline interchange is a state system under the jurisdiction and control of ODOT and the Beltline Highway/Gateway Street intersection is a City street system under the jurisdiction and control of CITY.

NOW THEREFORE, the premises being in general as stated in the foregoing recitals, it is agreed by and between the parties hereto as follows:

TERMS OF AGREEMENT

1. As used in this agreement, “Phase I” and “Phase II” of the I-5/Beltline Interchange project have the following meanings:

   a. Phase I refers to improvements to the I-5 Beltline Interchange, which will be administered by ODOT.

   b. Phase II refers to improvements at and near the Beltline Highway/Gateway Street intersection, which will be administered by CITY.

2. It is understood that design of Phase II (improvements to the local system) will utilize a Steering Committee with property owner representation.

3. Future project agreements for development and construction of Phase I and Phase II will be required.

4. If Phase II is implemented, said work will be funded with funds available to CITY and will be addressed under a separate agreement.

5. The "Monitoring and Implementation Plan," marked Exhibit A and by this reference made a part hereof, describes the monitoring activities and implementation actions necessary for initiation of Phase II.

6. Activities described in the Monitoring and Implementation Plan will be funded with CITY and ODOT Funds. Each party will be responsible for its own associated monitoring costs. ODOT's portion of the monitoring costs for this project shall not exceed $50,000 and shall be funded through STIP Key number 10377. If additional funds are needed for ODOT to perform its functions, an amendment to this agreement will be required to increase that amount.

7. Activities described in the Monitoring and Implementation Plan shall begin on the date all required signatures are obtained and Exhibit A conditions 1.A and 1.B are met. Monitoring and implementation activities shall terminate upon completion of the Phase II construction. Thereafter, CITY or ODOT may elect to continue monitoring traffic conditions as part of ongoing operations of their respective facilities.

CITY OBLIGATIONS

1. CITY shall, at its own expense, be responsible for the volume-to-capacity ratio monitoring work and Phase II construction improvements as described in Exhibit A.

2. CITY agrees to comply with all federal, state, and local laws, regulations, executive orders and ordinances applicable to the work under this agreement, including, without limitation, the provisions of ORS 279.312, 279.314, 279.316, 279.320 and 279.555, which hereby are incorporated by reference. Without limiting the generality of the foregoing, CITY expressly agrees to comply with (i) Title VI of Civil Rights Act of 1964; (ii) Section V of the Rehabilitation Act of 1973; (iii) the Americans with Disabilities Act of 1990 and ORS 659A.142; (iv) all regulations and administrative rules established pursuant to the foregoing laws; and (v) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations.

3. CITY shall perform the service under this agreement as an independent contractor and shall be exclusively responsible for all costs and expenses related to its employment of individuals to perform the work under this agreement including, but not limited to, retirement contributions, workers compensation, unemployment taxes, and state and federal income tax withholdings.

4. CITY, its subcontractors, if any, and all employers working under this agreement are subject employers under the Oregon Workers Compensation Law and shall comply with ORS 656.017, which requires them to provide workers' compensation coverage for all their subject workers, unless such employers are exempt under ORS 656.126. CITY shall ensure that each of its contractors complies with these requirements.

5. CITY's project manager for this agreement is Nick Arnis, Transportation Manager, 225 Fifth Street, Springfield, Oregon, 97477, (541) 744-3373.

ODOT OBLIGATIONS

1. ODOT certifies, at the time this agreement is executed, that sufficient funds are available and authorized for expenditure to finance costs of this agreement within ODOT's current appropriation or limitation of current biennial budget. ODOT shall, at its own expense, be responsible for its portion of the monitoring activities as described in Exhibit A.

2. ODOT's project manager for this agreement is Karl Wieseke, ODOT Area 5 Project Leader, 644 A St, Springfield, OR 97477 (541) 744-8080.

GENERAL PROVISIONS

1. This agreement may be terminated by mutual written consent of both parties.

2. ODOT may terminate this agreement effective upon delivery of written notice to CITY, or at such later date as may be established by ODOT, under any of the following conditions:

a. If CITY fails to provide services called for by this agreement within the time specified herein or any extension thereof.

b. If CITY fails to perform any of the other provisions of this agreement or so fails to pursue the work as to endanger performance of this agreement in accordance with its terms, and after receipt of written notice from ODOT fails to correct such failures within 10 days or such longer period as ODOT may authorize.

c. If ODOT fails to receive funding, appropriations, limitations or other expenditure authority at levels sufficient to pay for the work provided in the agreement.

d. If Federal or State laws, regulations or guidelines are modified or interpreted in such a way that either the work under this agreement is prohibited or if ODOT is prohibited from paying for such work from the planned funding source.

3. Any termination of this agreement shall not prejudice any rights or obligations accrued to the parties prior to termination.

4. CITY acknowledges and agrees that ODOT, the Secretary of State's Office of the State of Oregon, the federal government, and their duly authorized representatives shall have access to the books, documents, papers, and records of CITY which are directly pertinent to the specific agreement for the purpose of making audit, examination, excerpts, and transcripts for a period of three years after final payment. Copies of applicable records shall be made available upon request. Payment for costs of copies is reimbursable by ODOT.

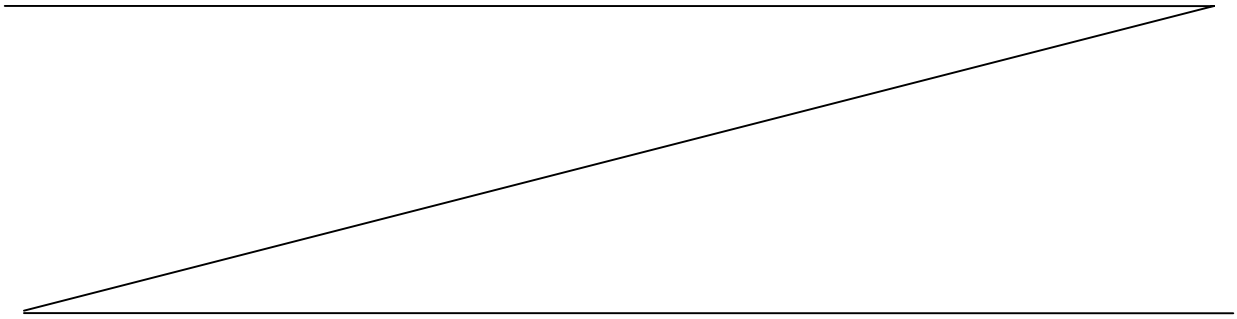
5. This agreement and attached exhibits constitute the entire agreement between the parties on the subject matter hereof. There are no understandings, agreements, or

representations, oral or written, not specified herein regarding this agreement. No waiver, consent, modification or change of terms of this agreement shall bind either party unless in writing and signed by both parties and all necessary approvals have been obtained. Such waiver, consent, modification or change, if made, shall be effective only in the specific instance and for the specific purpose given. The failure of ODOT to enforce any provision of this agreement shall not constitute a waiver by ODOT of that or any other provision.

IN WITNESS WHEREOF, the parties hereto have set their hands and affixed their seals as of the day and year hereinafter written.

The I-5/Beltline Project was approved by the Oregon Transportation Commission on February 13, 2002, as part of the 2002-05 Statewide Transportation Improvement Program (Key 10377).

The Oregon Transportation Commission on February 13, 2002, approved Delegation Order No. 2, which authorizes the Director to approve and execute agreements for day-to-day operations when the work is related to a project included in the Statewide Transportation Improvement Program or a line item in the biennial budget approved by the Commission.



Signature Page to Follow

On September 6, 2002, the Director of the Oregon Department of Transportation approved Subdelegation Order No. 2, in which the Director delegates authority to the Executive Deputy Director for Highways to approve and execute agreements over $75,000 when the work is related to a project included in the Statewide Transportation Improvement Program.

CITY OF SPRINGFIELD, by and through its Elected Officials

By _____
City Manager

Date 4/22/03

APPROVED AS TO LEGAL SUFFICIENCY

By _____
City Attorney

Date 4/8/2003

AGENCY ADDRESS:
Nick Arnis
Transportation Manager
City of Springfield
225 5th Street
Springfield OR 97477

STATE OF OREGON, by and through its Department of Transportation

By _____
Executive Deputy Director of Highways

Date 5-14-03

APPROVAL RECOMMENDED

By _____
Technical Services Manager/Chief Engineer

Date 5-14-03

By _____
Region 2 Manager

Date 4/28/03

By _____
Area 5 Manager

Date 4/24/03

APPROVED AS TO LEGAL SUFFICIENCY

By _____
Assistant Attorney General

Date 5/6/03

Exhibit A

I-5 / BELTLINE INTERCHANGE PROJECT
Monitoring and Implementation Plan

1. Description of Monitoring and Implementation Plan

The intent of the Monitoring and Implementation Plan (hereinafter referred to as MIP) is to determine when capital improvements at and near the Beltline Highway/Gateway Street intersection will be required (hereinafter referred to as Phase II), so as not to compromise the investment in the Interstate 5/Beltline Highway interchange and to support safe and efficient traffic conditions within the interchange area.

Activities described in the MIP will commence once two key conditions are satisfied:

A. Pioneer Parkway's extension from Harlow Road to East Beltline Road is constructed and operational, and

B. The planned northbound I-5 to westbound Beltline Highway flyover ramp and planned northbound I-5 to eastbound Beltline Highway ramp, which are each elements of the I-5/Beltline Highway Interchange's Phase I improvements, are programmed in the Oregon Department of Transportation's (ODOT's) Statewide Transportation Improvement Program.

Until both of these conditions are met, ODOT and the City of Springfield will continue to honor their current monitoring practices for the Beltline Highway/Gateway Street intersection. Further details of the MIP are described in Section 2 of this exhibit.

2. Description of Monitoring Methodology

The following criteria are based on conditions that typically occur during the 30th highest hour of traffic volumes on an annual basis. Current and historic data indicate that typical August p.m. peak hour conditions approximate the 30th highest hour at the Beltline Highway/Gateway Street intersection. Therefore, annual monitoring will occur each August between 4:30 and 6:30 p.m. The Oregon Department of Transportation (ODOT) will determine the appropriate week in August for annual monitoring and data will be collected for three mid-week days. Monitoring for both the traffic queuing and volume-to-capacity ratio criteria will occur on the same days and will be coordinated between ODOT and the City of Springfield.

2.A. Eastbound Beltline Highway Traffic Queuing Monitoring

After both of the conditions under 1(A) and 1(B) are met, annual monitoring of two key criteria will commence:

a. Eastbound Beltline Highway traffic queues extending from the Gateway Street intersection will be measured to determine potential impacts with the northbound I-5 ramp terminal intersection. This criterion will be used to evaluate the *effectiveness* of interchange/intersection interaction.

b. Eastbound Beltline Highway's volume-to-capacity ratio at the Gateway Street intersection will be measured to determine the intersection's performance. This criterion will be used to evaluate the *efficiency* of the interchange/intersection system and to satisfy Oregon Highway Plan mobility standards.

The City of Springfield's City Council will initiate Phase II and approve funding for Phase II project design with Steering Committee involvement as noted in the TERMS OF AGREEMENT, and construction within six months of the reporting of the following event:

Eastbound Beltline Highway traffic queues extend to or beyond a point measured 200 feet east of the northbound I-5 ramp terminal intersection for more than 25 percent of the observed traffic signal cycles at the Gateway Street intersection.

The City of Springfield will release construction bid documents (plans, specifications and cost estimate) for the Phase II improvements within six months of the reporting of the following event:

Eastbound Beltline Highway traffic queues extend to or beyond the northbound I-5 ramp terminal intersection for more than 25 percent of the observed traffic signal cycles at the Gateway Street intersection.

ODOT will be responsible for preparing the annual traffic queuing evaluation report. The City of Springfield will provide oversight. Both ODOT and the City of Springfield must mutually agree that one or both of the traffic queuing events have occurred prior to the City of Springfield initiating Phase II and releasing construction bid documents, as appropriate.

In addition to excessive traffic queuing based on actual surveyed conditions, the City of Springfield will, in good faith, rely upon ongoing and future traffic studies to determine when the above events may be met and will pursue the above Phase II actions based upon these results, as appropriate.

2.B. Eastbound Beltline Highway Volume-to-Capacity Ratio Criteria

The City of Springfield's City Council will initiate Phase II and approve funding for Phase II project design and construction within six months of the following event, and will also release construction bid documents (plans, specifications and cost estimate) as soon as practical thereafter:

Eastbound Beltline Highway's volume-to-capacity ratio, measured at the Gateway Street intersection, exceeds 0.85.

The City of Springfield will be responsible for preparing the annual volume-to-capacity evaluation report. ODOT will provide oversight. The assessment shall use traffic counts

collected at the Beltline Highway/Gateway Street intersection and at all signalized and unsignalized intersections to the west along Beltline Highway within the interchange area. All parameters input to the volume-to-capacity calculation must be mutually agreed to by the City of Springfield and ODOT. All data will be used in conjunction with a traffic operational method acceptable by ODOT to develop traffic signal timing that produces a volume-to-capacity ratio of 1.00 or less for the entire Beltline Highway/Gateway Street intersection.

Both ODOT and the City of Springfield must mutually agree that the volume-to-capacity event has occurred prior to the City of Springfield initiating Phase II and releasing construction bid documents, as appropriate. In the event of disagreement, both parties agree to third party mediation to adjudicate the disagreement. The third party mediated resolution shall be binding and accepted by both parties.

In addition to excessive volume-to-capacity results based on actual surveyed conditions, the City of Springfield will, in good faith, rely upon ongoing and future traffic studies to determine when the above events may be met and will pursue the above Phase II actions based upon these results, as appropriate.

Appendix B
Transportation Operations Analysis

Final Report

I-5/BELTLINE
INTERCHANGE PROJECT

Transportation Operational Analysis Report for the I-5/Beltline Interchange

Prepared for

Oregon Department of Transportation

November 2001

Prepared by

CH2MHILL

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Printed on Recycled and Recyclable Paper

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Acronyms and Abbreviations

Acronyms and Abbreviations

AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
BRT	bus rapid transit
FHWA	Federal Highway Administration
HOV	high-occupancy vehicle
km/h	kilometers per hour
LCOG	Lane Council of Government
LOS	level-of-service
LTD	Lane Transit District
MDR	medium density residential
MIS	major investment study
mph	miles per hour
NEPA	National Environmental Policy Act
NHS	National Highway System
ODOT	Oregon Department of Transportation
OHP	Oregon Highway Plan
TDM	transportation demand management
TIA	transportation improvement area
TMA	Transportation Management Area
TPAU	Transportation Planning Analysis Unit
TPR	Transportation Planning Rule
TransPlan	Eugene-Springfield Transportation System Plan
TSM	Transportation System Management
TSP	transportation system plan
UGB	urban growth boundary
V/C	volume to capacity ratio
VMT	vehicle miles traveled
vpd	vehicles per day
vph	vehicles per hour

SECTION 1

Introduction

The purpose of this report is to evaluate the potential transportation-related impacts that would result from implementation of the No Build and the three Build alternatives. The evaluation results presented in this report will be included in the I-5/Beltline Interchange Project Environmental Assessment, which is being prepared in accordance with the National Environmental Policy Act (NEPA) and Federal Highway Administration (FHWA) guidance policy.

1.1 Document Outline

This report is organized into the following seven sections:

- **Section 1: Introduction.** Describes project history, system linkage, modal relationships, and socioeconomics and land use.
- **Section 2: Project Purpose and Need.** Describes the interchange area's existing transportation deficiencies and expected constraints.
- **Section 3: Affected Transportation System Environment.** Describes the existing transportation system and planned capital improvement projects in the interchange area.
- **Section 4: Project Description.** Defines the three Build alternatives and their potential construction phasing.
- **Section 5: Travel Demand Forecasting Overview.** Provides an overview of the travel demand forecasting process used to obtain future year traffic projections.
- **Section 6: No Build and Financially Constrained Alternatives Evaluation.** Describes the No Build and Financially Constrained alternatives and provides an evaluation of their potential transportation impacts.
- **Section 7: Build Alternatives Evaluation.** Evaluates the potential transportation impacts of the three Build alternatives.

In addition, a technical appendix is provided.

- Appendix A—Trans Plan's Financially Constrained Projects
- Appendix B—Traffic Volume Forecasts
- Appendix C—Trip Origin-Destination Forecasts
- Appendix D—LTD Bus Routes
- Appendix E—EIS Traffic Data
- Appendix F—Level-of-Service Descriptions

1.2 Project History

In 1966, the Beltline Interchange design was completed and construction contract awarded, which included grading and paving of Beltline Road and the interchange ramps and construction of the I-5 overcrossing structure. In 1986, there was a major reconstruction of I-5 at the Beltline Interchange. This included widening I-5 to three lanes in the northbound and southbound directions; modifying connecting ramps to I-5; widening the Game Farm road overcrossing structures; and constructing a northbound auxiliary lane from the "Q" Street Interchange to the Beltline Interchange. In 1999 the Oregon Department of Transportation (ODOT) constructed the safety improvement project that separated northbound off-ramp freeway traffic destined for southbound Gateway from other off-ramp traffic, eliminating a weave with eastbound Beltline to southbound Gateway.

TransPlan provides the base assumptions for land use and network assumptions from which forecast traffic will be derived. It also defines roadway functional classification and land uses in the region and the immediate study area, and it reflects current policy. The I-5/Beltline Interchange is shown as unprogrammed project number 606 in the May 1999 Revised Draft of the TransPlan. TransPlan recognizes the I-5/Beltline Interchange Project as one of several improvements required to create a fully integrated, multimodal transportation network for the area.

In the spring of 1996, ODOT began a Facility Plan for the I-5/Beltline Interchange Project with the first steering committee meeting held in June 1996. A facility or refinement plan provides public participation before allocation of funds. This facility plan included analysis of transportation issues, traffic forecasting, concept designs, and location and refined solution costs. Creation and analysis of the design concepts were completed by November 1999.

In the year 2000, ODOT began a highly structured public and agency project evaluation screening process leading to the selection of environmental study alternatives for documentation in an environmental assessment. This process, which led to alternatives considered and dismissed as well as those carried through the environmental assessment, will be discussed fully in the environmental document.

1.3 System Linkage

Interstate 5 provides north-south access controlled movement of interstate goods and services and passenger travel in California, Oregon, and Washington, and is classified as a National Highway System (NHS) Interstate with International Trade Corridor status. At the Beltline Interchange, Interstate 5 connects to the Beltline Highway. The Beltline Highway is classified as an NHS Statewide Highway. To the west of Interstate 5, the Beltline highway is an access controlled four-lane urban freeway. Approximately 4,000 feet to the west of the Beltline Interchange, the Coburg/Beltline Interchange connects the Beltline Highway to Coburg Road, a City of Eugene north-south street classified as a major arterial. It is one of the significant entries to the City of Eugene. To the east of the Beltline Interchange, the Beltline Highway becomes a City of Springfield arterial street. Beltline Highway east of the I-5/Beltline Interchange connects with Gateway Street 625 feet east of the interchange. Gateway Street is a north-south City of Springfield arterial that parallels the freeway and has very heavy traffic movements at its intersection with the Beltline Highway.

The Game Farm Road North undercrossing paralleling an abandoned railroad line is to the north of I-5/Beltline Interchange. Game Farm Road North serves as the demarcation of the urban growth boundary (UGB) west of I-5 on the Eugene side of the freeway. The UGB on the east side, Springfield, is farther to the north. There are no significant roads or facilities until the McKenzie River bridge crossing on the east side. The Harlow Road overcrossing of I-5 serves as an important east-west connector between Eugene and Springfield and is located approximately 4,000 feet to the south of I-5/Beltline Interchange. Approximately 5,000 feet south of the Beltline Interchange lies the I-105/I-5 Interchange. I-105 is classified as an Interstate facility. It becomes Highway 126 and leads directly into Springfield.

Another important system linkage is the proposed Pioneer Parkway extension that would begin at Harlow Road and proceed northerly (easterly of and adjacent to Game Farm Road South) until it would connect with the eastern portion of Beltline Highway in Springfield. This important project is discussed later in this report.

1.4 Modal Interrelationships

In the development of TransPlan an analysis of transportation demand management (TDM) measures was performed for the Eugene-Springfield metro area, including a major investment study (MIS). Six alternatives were examined with Bus Rapid Transit (BRT), Nodal Development, and Voluntary TDM programs being selected as the preferred system solution choice. TransPlan provides the framework for project-related TDM assumptions. Several sub-area refinement plans in the Interchange area address potential pedestrian and bicycling improvements. In particular, the City of Eugene's Willakenzie Area Plan shows Beltline west of I-5 as a planned transit route and a proposed bike path across I-5 in the vicinity of the Beltline Interchange.

For the I-5/Beltline Interchange Project, it was assumed that:

- Existing voluntary TDM would continue for employers with more than 200 employees.
- BRT network would be included as an unprogrammed investment.
- Existing voluntary TDM would continue along with expansion of the free bus pass program. In addition, TDM was proportionally expanded with growth for the year 2005 and 2025 projections.

The interchange design includes a conceptual bike path design consistent with corridor shown in the Willakenzie area plan.

No waterway, air or rail facilities are close enough to the I-5/Beltline project vicinity to warrant specific consideration in the alternative evaluation and environmental analysis study process.

SECTION 2

Project Purpose and Need

The I-5/Beltline Interchange is located at the intersection of Interstate 5 and the Beltline Highway, at the northern boundary of Oregon's second largest metropolitan center. The City of Eugene is located to the west and the City of Springfield is located to the east. The interchange is a key element of a comprehensive transportation network serving interstate, regional, and local travel demands. The project vicinity is shown in Figure 2-1.

The interchange was constructed and opened to traffic in 1968. At the time of its construction, it was serving a predominantly rural area consisting of dairy farms and pastures. Changes in land use since that time have affected the function of the interchange and surrounding transportation system. Today, large tracts are being developed for residential and retail commercial use, interstate traveler services, and industrial centers providing regional employment, and the area surrounding the interchange now is primarily a low- to medium-density urban landscape with pressure for continued development.

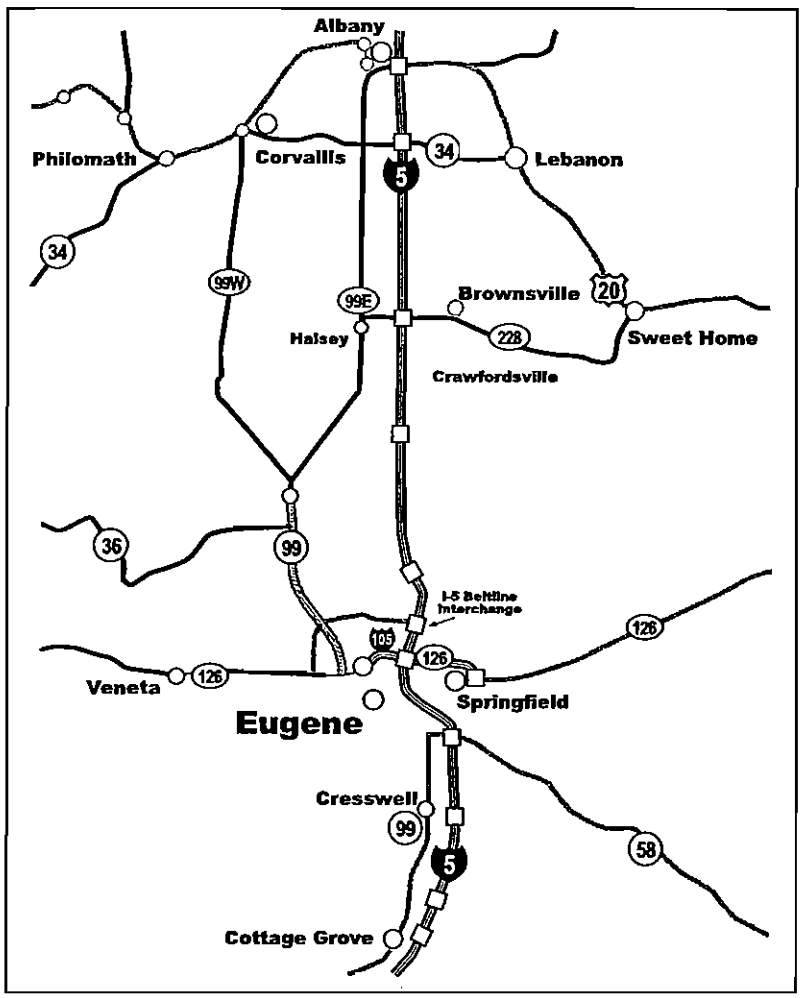
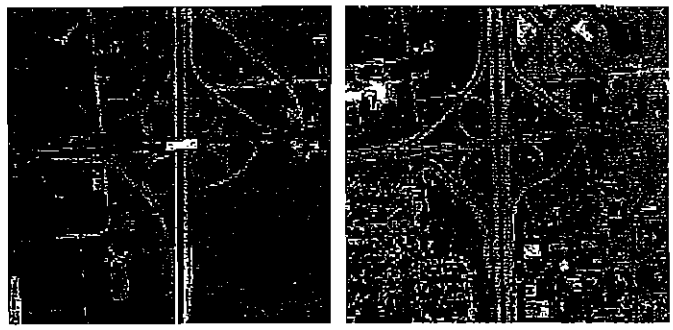


FIGURE 2-1
Project Vicinity

Locally planned land use recognizes the current economic importance of the area served by the I-5/Beltline Interchange. The interchange provides access to travel-related services such as restaurants, lodging, and gasoline. The Gateway area has a high concentration of hotels and motels, making it a convenient travel layover destination. Recent urban development in the last decade with regional and local significance include the development of Gateway Mall, recent residential and industrial construction in the Chad Drive area, and industrial

complexes, such as the Sony Plant. Land use changes in the Gateway area are illustrated in Figure 2-2.



In 1968, nearby land uses consisted primarily of farms and pastures

Traffic-generating land uses have developed over the last 30 years in the Gateway area

FIGURE 2-2
Land Development Pattern

About 18 percent of the total trips through the Beltline Interchange are through trips on I-5; that is, they begin and end outside both Eugene and Springfield city limits. Another 44 percent of the trips that traverse the interchange either originate or end within the combined city limits. Finally, about 38 percent of the trips using the interchange have both trip ends within the Eugene and Springfield city limits. (See Figure 2-3.)

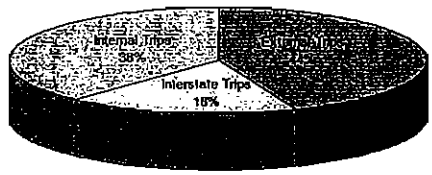


FIGURE 2-3
Percentage of Interchange Trips by User Origin/Destination. Source: TransPlan, LCOG

Traffic increases through the interchange area associated with local and statewide growth have resulted in three related transportation problems at the intersection of I-5 and the Beltline Interchange. These are geometric deficiencies, operational deficiencies, and safety deficiencies. The three topics are addressed below.

2.1 Transportation Performance

Current problems at the interchange can generally be classified into three related types of deficiencies: geometric, operational, and safety deficiencies.

2.1.1 Existing Geometric Deficiencies

The I-5/Beltline Interchange is a cloverleaf form with circular loop ramps in all four quadrants. When the interchange was constructed, the surrounding area was rural. These conditions facilitated smooth and safe operations through a cloverleaf-type interchange. Traffic demands for the interchange in 1970 were 20,650 vehicles per day (vpd), compared with 93,000 today. For instance, the short distances between loop ramps, where traffic is required to weave, were consistent with traffic demands for the 20-year planning period (from 1965 to 1985). The number of associated vehicle conflicts in the weaving areas on both I-5 and Beltline Road is increasing. The weave conflicts are particularly difficult when truck traffic is involved.

Similarly, the Gateway/Beltline intersection traffic volumes were low when the intersection was originally constructed, and the distance of 625 feet between the interchange ramps and Gateway did not create any traffic issues. However, this spacing now creates challenges for many drivers destined for Arco, Sony, or other locations north of Beltline. These drivers must cross three eastbound lanes of Beltline to access northbound Game Farm within a short distance.

In 1999, ODOT constructed a safety improvement project that separated northbound off-ramp freeway traffic destined for southbound Gateway from other off-ramp traffic, eliminating a weave with eastbound Beltline to southbound Gateway. Despite these improvements, the following geometric deficiencies still exist at the I-5/Beltline Interchange according to the American Association of State Highway and Transportation Officials (AASHTO) standards:

- The I-5 weave section distance between the exit and entrance ramps is less than ideal for safe movement of current traffic volumes (both northbound and southbound).
- The Beltline Road weave section distance between the exit and entrance ramps is less than ideal for safe movement of current traffic volumes (both eastbound and westbound).
- The loop ramp horizontal alignment in the northwest, southeast, and southwest quadrants' noncircular curves requires operators to constantly adjust steering. This is a problem for truck traffic.

The proposed project would remove all of the geometric deficiencies described above.

2.1.2 Existing Operational Deficiencies

"Operations" refers to the quality of traffic flow. The operating speed required by the loop ramps creates transition problems for drivers as a result of the differential between freeway travel speeds and speeds of the merge/diverge movements transitioning to the lower speed loop ramps. The highest volume movements are from northbound I-5 to westbound Beltline and the reciprocal movement from eastbound Beltline to southbound I-5.

The operational deficiencies parallel the geometric deficiencies identified above and include the relationship between the interchange and the nearby Beltline/Gateway intersection:

- The distance of only 625 feet from the I-5 ramp to the nearest intersection (Beltline/Gateway) causes intermittent delay during peak commuter periods.
- The Gateway/Beltline intersection northbound storage queue backs up past Kruse Way, creating congestion and delay to business access during peak periods.

The Oregon Highway Plan (OHP) calls for a volume to capacity ratio (V/C) of 0.80 on urban freeways, 0.85 on the Beltline Highway west of I-5, and 0.90 for district and local roads, which would include the Beltline Highway east of I-5. For existing year 2000 traffic with the No Build Alternative, all quadrants of the interchange are below a V/C of 0.80 except for the NB I-105/Beltline weave, which has a V/C of 0.87. On the local streets, the Gateway/Beltline intersection has a V/C of 0.91 and the Kruse Way intersection has a V/C of 2.0+.

The No Build network will be under stress by 2025 because of the increasing volumes. By 2025, the I-5/Beltline Highway Interchange major weaving sections are expected to be failing along with most of the major intersections in the study area. The Gateway Street area of Springfield is likely to be congested with long queues that block many roadways and accesses, making travel difficult if no improvements are made.

2.1.3 Existing Safety Deficiencies

Increased traffic conflicts, coupled with geometric deficiencies, typically result in higher numbers of crashes. During the 4-year period from January 1994 through December 1998, more than 175 crashes in the I-5/Beltline Interchange area were reported to ODOT; these included crashes on the I-5 mainline, the interchange ramps, and Beltline up to but not including the Gateway/Beltline intersection. About 67 percent of the crashes involved injuries to some extent, including one pedestrian fatality. The ratio of daytime to nighttime accidents was 2.5 to 1.

ODOT's 1999 safety improvement project was intended to make intersection operational improvements. About 64 of the reported crashes, or 37 percent, may have been avoided during the reporting period had the improvements been in place earlier. There remain 111 reported crashes in the area not related to the safety improvement project. Of these remaining crashes, 58 percent were rear-end, 22 percent were fixed or other object, 11 percent were sideswipe-overtaking, 7 percent involved turning movements, and 2 percent were categorized as other types. Crash hot spot locations are as follows:

- 15—I-5 southbound, including weave
- 5—I-5 northbound, including weave
- 8—Beltline weaves between I-5 ramps
- 8—Northbound ramp intersection
- 16—Beltline to Gateway weave, unrelated to 1999 safety project

According to ODOT, the interchange area's crash rate[1] is in the state's highest 10 percent of all crash locations.

2.1.4 Future Interchange Problems

Operational and safety problems will worsen without better connections of the adjacent roadway network and improvements to the interchange. In the next 15 years, according to the *Beltline Facility Plan*, the number of daily vehicle trips traversing the I-5/Beltline Interchange is expected to increase 29 percent, from 93,000 to 120,000 trips per day. The number of nonauto trips will also increase. These increases will be associated with additional land development in the surrounding area, as well as an increase in regional trips.

Without improvements to the interchange geometry, these conditions could lead to an increase in the number of crashes, particularly along I-5 and Beltline Road through the weave sections, between interchange loop ramps.

The proposed project will correct the particular geometric deficiencies contributing to a higher than average crash rate. The selected interchange alternative will eliminate both the short weave movements and some of the conflict points associated with the existing interchange and intersections on the Beltline. These improvements will eliminate or reduce two of the major contributors to the types and locations of crashes occurring in the interchange area.

[1] The crash rate takes into account the number of crashes, traffic volume, and facility type based on the crash history of a specific roadway segment in urban or rural conditions.

SECTION 3

Affected Transportation System Environment

This section presents a description of existing socioeconomics and land use, highway and nonauto mode facilities in and around the I-5/Beltline Interchange area. It also discusses recent and planned capital construction projects within the metropolitan area.

The last part of this section describes TDM and Transportation System Management (TSM) Measures that were explicitly factored into the transportation analysis.

3.1 Socioeconomics and Land Use

As discussed, the area around the Beltline Interchange has changed in the last three decades, becoming more urban in nature. From a social and economic development standpoint, three areas adjacent to the interchange are important to consider:

- The Gateway area east of I-5, including the Gateway Mall and nearby commercial, industrial, and residential development. This area is generally bounded by Harlow Road on the south and the McKenzie River to the east. This is a developed commercial and industrial area with ongoing proposals for development.
- The Chad Drive area west of I-5 and north of Beltline, generally bounded by Coburg Road to the west and north. This is a rapidly developing residential and industrial area.
- The Willakenzie neighborhood area west of I-5 and south of Beltline. This is a developed residential area needing improved access to the Gateway commercial areas.

If no transportation infrastructure improvements are made to these areas, travelers to and from existing developments will experience delays, the potential for crashes will increase, and limitations on the development of planned land use densities may occur potentially causing pressure on UGB elsewhere. Inside the UGBs of Eugene and Springfield, there are 685 acres of vacant lands north of Harlow, west of 5th Street, and east of Coburg Road designated for development. All of this land is either within the city limits of Springfield or Eugene or within the UGB. The proposed project would serve all such development demands located within existing planned land uses.

3.2 Highway Facilities

Interstate 5 is a six-lane freeway within the study area. I-5 is classified as a NHS Interstate with International Trade Corridor status. At milepost 195, I-5 interchanges with Beltline Highway to the west and Beltline Road to the east. The interchange configuration is considered a full cloverleaf design, with loop and diagonal ramps in each of the four quadrants. It is the only full cloverleaf-style interchange on the state's system.

Beltline Highway is an access-controlled four-lane principle arterial urban freeway just west of I-5. The highway is classified as a NHS Statewide Highway to the west of I-5. Beltline

Highway east of I-5 is classified as a Regional Highway. About 4,000 feet west of I-5, Beltline Highway interchanges with Coburg Road in the City of Eugene. Coburg Road is classified as a principle arterial in Eugene.

Beltline Road (hereinafter referred to as Beltline) is located to the east of I-5 and Gateway Street. Beltline, classified as a minor arterial roadway by the City of Springfield, has six lanes immediately to the east of Gateway Street. It narrows down to a two-lane section halfway between Hutton Street and Game Farm Road South. Beltline currently ends at Game Farm Road South, where the intersection has three legs. Between Gateway Street and Game Farm Road South, the only street that accesses Beltline is Hutton Street. Sidewalks exist on both sides of Beltline from Gateway Street to Hutton Street and there are no designated bicycle lanes along the roadway.

Gateway Street (hereinafter referred to as Gateway) is a north-south minor arterial roadway. It intersects Beltline just 625 feet east of the I-5 interchange. South of Beltline, Gateway has four travel lanes and a center turn lane. It intersects Kruse Way, Gateway Loop and Postal Way within the study area. Its southern terminus is at its signalized intersection with Harlow Road. There are many driveways that serve commercial businesses along Gateway. North of Beltline, Gateway has four travel lanes. Some driveways exist between Beltline and Gateway's intersection with Game Farm Road East. Gateway has sidewalks on both sides, as well as striped bicycle lanes.

Game Farm Road East is a three-lane, east-west major collector roadway. The roadway provides striped bicycle lanes and has sidewalks on both sides. It primarily serves increasing industrial developments in the area.

Game Farm Road North extends northerly from Gateway and Game Farm Road East. Game Farm Road North is a minor arterial roadway. It is a three-lane roadway that extends northerly and parallel to an abandoned railroad line. Game Farm Road North serves as the demarcation of the UGB west of I-5 on the Eugene side of the freeway (the UGB on the east side, i.e., in Springfield, is located farther to the north). It has sidewalks and bicycle lanes just to the east of I-5.

International Way (hereinafter referred to as International) is a three-lane major collector roadway. It intersects Game Farm Road North to the north of Game Farm Road East. International serves the increasing industrial developments in the area. It has sidewalks on both sides and striped bicycle lanes.

Game Farm Road South has two through lanes. Between Game Farm Road East/Deadmond Ferry Road and Beltline Road, Game Farm Road South also has a continuous two-way left-turn lane, as well as paved shoulders on both sides of the roadway and a sidewalk along the west side of the roadway. South of Beltline Road, Game Farm Road East is a narrow two-lane roadway with no sidewalks or bicycle lanes.

Hutton Street (hereinafter referred to as Hutton) consists of two lanes. It is a local roadway that intersects Beltline just east of Gateway. Hutton provides access to several hotels and a restaurant. Sidewalks are available on both sides of Hutton, but no bicycle lanes exist.

Kruse Way (hereinafter referred to as Kruse) also consists of two lanes. This short local roadway extends between Gateway and Hutton. Kruse provides access to a hotel, several

restaurants, and a service station. Like Hutton, Kruse has sidewalks on both sides, but there are no striped bicycle lanes.

Finally, Gateway Loop is a two-lane local roadway that extends westerly from Gateway. It has sidewalks on both sides and does not have bicycle lanes. Postal Way (hereinafter referred to as Postal) also extends westerly from Gateway (to the south of Gateway Loop) and has sidewalks on both sides and no bicycle lanes.

All of the I-5/Beltline Interchange ramp junctions are free-flow merges or diverges (i.e., none of the junctions are signalized), except for one lane of the northbound I-5 northbound-to-eastbound Beltline ramp. Signalized intersections currently exist at the following study area intersections: Gateway/Beltline, Beltline/Game Farm Road South, Gateway/Gateway Loop, and Game Farm Road North/International. The following intersection approaches are stop sign-controlled: the northbound I-5-to-eastbound Beltline ramp (outside lane), Game Farm Road East at Game Farm Road North, all approaches at Game Farm Road East/Game Farm Road South, Hutton at Beltline, Kruse at Gateway, and Postal at Gateway.

3.3 Nonautomotive Mode Facilities

Existing pedestrian and bicycle facilities along study area roadways were discussed above. Most of the study area roadways have 5-foot wide or wider sidewalks on both sides and several of the roadways offer striped bicycle lanes.

Pedestrian crosswalks exist at all of the signalized intersections; however, there are few crosswalks at the unsignalized intersections. Crossing Beltline between Gateway and Hutton or crossing Gateway between Beltline and Gateway Loop is often daunting to pedestrians due the distance between crosswalks, the high traffic volumes and the width of the streets.

There are presently no pedestrian or bicycle facilities that provide an east-west connection across I-5. Pedestrians and bicyclists wishing to cross the interstate either use the Game Farm Road North undercrossing or the Harlow Road overcrossing. Many of these users shift to buses to traverse the freeway.

The Lane Transit District (LTD) provides transit service in Lane County. LTD's primary responsibility is the provision and operation of bus routes throughout the county. LTD also offers TDM strategies, such as carpool and vanpool matching services, guaranteed ride home programs, and group pass programs. In addition, LTD provides the Commuter Solutions program, which offers area businesses, organizations, and educational institutions transportation programs for their employees and students.

LTD provides six bus routes that provide service within the Gateway area. Routes 9, 10, 12, 18, 19, and 79 directly serve the area. LTD's system map and the specific routing and schedules for each of the study area bus routes are provided in Appendix D.

The 9 VRC/Gateway route provides weekend bus service between Gateway and downtown Eugene. The 10 Gateway/VRC route provides weekend service between the Valley River Center and downtown Eugene, via the Gateway area. The 12 Gateway route provides bus service between the Springfield Station and downtown Eugene, also via the Gateway area.

The 18 Mohawk/Hayden Bridge and 19 Mohawk/Q Street routes provide weekday bus service between the Gateway Mall Station and the Springfield Station. Finally, the 79 UO/Gateway route runs during weekdays between the New Life Center park-and-ride (at 19th Street and Marcola Road in Springfield) and the University of Oregon via the Gateway area.

In the future, LTD plans on developing a BRT system for the Eugene-Springfield metropolitan area. The BRT system is included as a part of the region's TransPlan and would bring together a variety of proven, low-cost technologies in ways that save travel time and allow buses to efficiently move through and around traffic congestion. As a first step, LTD has proposed the testing of BRT on a pilot corridor from West 11th Avenue in Eugene, to Franklin Boulevard, past the University of Oregon, and along Main Street to east Springfield. This service is proposed to introduce the service to the community. As the need for transportation grows in the region, the BRT system could be expanded to serve other major corridors in the area.

The BRT pilot project is assumed in the appropriate future scenarios addressed in this report.

3.4 Recent and Planned Capital Construction Projects

TransPlan is the Eugene-Springfield metropolitan area transportation system plan (TSP) that identifies future projects aimed at creating a fully integrated, multimodal transportation network for the area. The plan is predicated on specific land use designations and existing uses, as well as an integrated set of TDM measures and system improvements.

The Pioneer Parkway Extension project is an element of TransPlan and is considered an unprogrammed project within the program's Financially Constrained scenario. The Pioneer Parkway Extension, which would include bicycle lanes, is addressed specifically in this report to determine it's affect on the I-5/Beltline Interchange Project should funding not be appropriated as planned. The City of Springfield and Lane County are actively pursuing funding for the Pioneer Parkway Extension project at time of the writing of this report.

Listed below are some of TransPlan's capital improvement projects that would be considered to have an effect on the I-5/Beltline Interchange Project (see Appendix A for additional detail):

- Delta/Beltline Interchange: interim and safety improvements, ramp modifications, bridge widening
- Beltline Highway at Coburg Road: ramp construction and signal improvements
- Eugene-Springfield Highway at the Mohawk Boulevard Interchange: lane additions to ramps
- Harlow Road at Pheasant Boulevard: traffic control improvements
- Q Street at Pioneer Parkway: traffic control improvements
- Cardinal Way—Game Farm Road to medium density residential (MDR) north-south connector: upgrade to two- to three-lane facility

- MDR-related improvements: new construction of system network to urban standards in coordination with development
- Coburg Road—Kinney Loop to Armitage Park: reconstruct to three-lane urban facility, improve shoulders
- Garden Way—Sisters View Avenue to Centennial Boulevard: upgrade to two- to three-lane urban facility
- County Farm Loop: upgrade to two- to three-lane urban facility
- Game Farm Road North—Coburg to Crescent: upgrade to two- to three-lane urban facility with bike lanes and sidewalks
- Game Farm Road South—Beltline to Harlow: upgrade to two-lane urban facility with bike lanes and sidewalks
- Old Coburg Road—Game Farm Road to Chad Drive: upgrade to three-lane urban facility with bike lanes and sidewalks
- Coburg Road—Crescent Avenue to Oakway Road: safety and operational study and access management improvements

For additional information about other plans, policies or studies related to the I-5/Beltline Interchange Project, please see Section 2 in the report entitled "Alternatives Analysis Technical Report for the I-5/Beltline Interchange."

3.5 Transportation System and Demand Management

Prior to developing project alternatives, the OHP Major Investment Policy requires that optimizing the existing system be examined in full prior to building new facilities. In the spirit of that policy, it is important to examine a range of system and demand management techniques in effort to avoid major investments when practical. Further, the TDM and TSM Measures that have already been developed in the TransPlan process were explicitly factored into the transportation analysis. All of the significant regional and local planning documents were reviewed and their relationship to potential TSM measures were a part of the review.

3.5.1 Transportation System Management

None of the many potential and conceptual project alternatives analyzed for the Beltline Interchange suggested TSM measures that might be applied as a solution that would work in their stead. The major issues needing to be resolved by this project are either too large for TSM measures to be effective, or are unrelated to specific types of TSM measures that might be applied.

Several TSM measures are typically presented for potential application to a specific project. The key frame of reference for the applicability of TSM measures are the specific needs that the interchange project must address. For this project, the interchange itself and the Gateway/Beltline intersection present different relationships to potential TSM solutions.

- **I-5/Beltline Interchange**—For the interchange, potential solutions must effectively address its geometric deficiencies and their relationship to both operations and safety for present and future traffic volumes. These issues cannot be effectively resolved through any typical TSM measures. There are no partial solutions to reconstruction of the interchange that would address these remedy deficiencies. The following are TSM measures that might typically be posed for an interchange located on an Interstate Highway, and the fundamental reason they do not apply here.
- **Ramp Metering**—Ramp metering is a solution that is typically proposed to manage traffic congestion and safety on the mainline of the freeway. I-5 through this section is not experiencing capacity or safety problems unrelated to the interchange.
- **High-Occupancy Vehicle (HOV) Lanes**—HOV lanes are also a solution primarily oriented towards reducing traffic congestion on the mainline of the freeway. Further, HOV lanes are normally applied to roadways with a heavy component of commuter trips. Commuter trips are not a major component of trips generated on this section of I-5.
- **Gateway/Beltline Intersection**—Because the problems at the Gateway/Beltline intersection are more operational in nature than those of the interchange, TSM measures are potentially more applicable to solving this intersection's problems. However, the traffic analysis has shown that current and projected traffic volumes are too great to allow TSM to be an effective substitute for the project alternatives that have been developed.
- **Traffic Signal Timing Optimization**—Traffic signal timing optimization is another method suggested to make best use of the existing system while potentially improving volume to capacity ratios.

The traffic analysis for this project shows that the No-Action alternative will be under stress by 2025 because of the increasing volumes. By 2025, the I-5/Beltline Highway major weaving sections are expected to be failing along with most of the major intersection in the study area. These problems are too serious to be solved through traffic signal timing optimization.

3.5.2 Transportation Demand Management

TDM is strongly correlated with potential TSM because it is theoretically possible that TDM could provide enough reduction in traffic volumes to allow the implementation of several TSM measures in place of the project's intersection alternatives. TransPlan has TDM Policies which direct the development and implementation of actions that encourage the use of modes other than single-occupant vehicles to meet daily travel needs. It's TDM policies support changes in travel behavior to reduce traffic congestion and the need for additional road capacity and parking and to support desired patterns of development.

TransPlan has found that voluntary TDM strategies, such as the employer-paid bus pas program can reduce vehicle miles traveled (VMT) by 3 percent, and that mandatory strategies, such as mandatory employer support, can reduce VMT up to 10 percent. TransPlan has developed a balanced combination of strategies related to land use, transit, TDM and bicycles, which will help reduce future congestion by 52 percent over forecasted trends. Compared to future trend conditions, TransPlan's balanced strategies will show:

- 8 percent less VMT per capita

- 11 percent more trips under 1 mile in length
- 5 percent fewer drive-alone trips
- 17 percent more nonauto trips

TransPlan also calls for significant increases in the amount and convenience of transit service, increases in the amount of bikeways and sidewalks and an expansion of the existing program of TDM travel incentives.

This information is presented for two reasons: it shows that the TDM and other measures taken by TransPlan will reduce trip demand over that forecasted based upon current trends. Secondly and more importantly for the application of TSM measures to this project, the traffic forecasts undertaken for the I-5/Beltline Interchange Project include TransPlan's TDM measures as part of the projections.

For the I-5/Beltline Interchange Project, it has been assumed that there would be a continuation of existing voluntary TDM for employers with more than 200 employees, BRT network would be included as an unprogrammed investment, and that there would be a continuation of existing voluntary TDM plus an expansion of the free bus pass program. In addition, TDM was proportionally expanded with growth for the 2005 and 2025 year projections.

For the Gateway Area, a Transportation Management Area (TMA) task force is in being formed to address traffic congestion in the Gateway vicinity. It is anticipated that this group will address the following and many other possible measures.

- **Fringe Parking**—Fringe parking is most effective for commuter trips to the workplace and would not be applicable for trips made into and out of the interchange area are related to travelers stopping for regional services such as restaurants, motels, and gasoline, or regional shopping trips to the Gateway Mall. These trips would be from decentralized locations throughout the region not interested in linking work trips with commercial trips. Fringe parking would not be expected to effectively address and resolve congestion problems of the interchange.
- **Ridesharing**—Ridesharing is already addressed as part of TransPlan's TDM measures and is implicitly included in the traffic analysis for all alternatives.

3.5.3 TSM/TDM Measures Implemented

Although they do not substitute for the proposed project alternatives, the following TSM measures are proposed as part of the I-5/Beltline Interchange Project. Analysis showed that the highest attainable levels of TDM as provided in TransPlan will provide very little reduction in vehicular traffic at the I-5/Beltline Interchange but, it was significant enough to broaden the range of possibilities to include at grade solutions for the Gateway/Beltline Intersection.

- **Bicycle and Pedestrian Facilities**—The project includes as part of its design a separate bicycle and pedestrian facility that crosses I-5, removing it as a barrier to this form of travel. To the extent that it is used, it will eliminate vehicles in the interchange area, particularly at the Gateway/Beltline intersection.
- **Bus Rapid Transit**—The TransPlan update included the BRT Concept, MIS Final Report. Six alternative plan concepts were evaluated for their ability or inability to effectively

reduce traffic demands on the Gateway/Beltline intersection. The preferred alternative, BRT, plays a key role in reducing VMTs in the Metro area. The Gateway/Beltline improvements will be defined well ahead of the definition of the BRT elements.

- **Mass Transit**—Transit ridership assumptions and strategies have been incorporated into the TDM measures that were included in the transportation analysis for the project. Lane Transit District was represented on the project Stakeholder Working Group during the development of project alternatives. TransPlan includes a series of capitol investment actions for transit projects. Included are short-range projects that include three park-and-ride lots at locations to be determined along major corridors, passenger boarding improvements at various locations. Long-range projects include a Gateway and Beltline Station consisting of a transfer station and a possible park and ride lot as well as six park-and-ride lots along major corridors at locations to be determined. Final design of the selected project alternative will be coordinated with Lane Transit District to ensure that there are no project conflicts with any of these projects and that the project design will be consistent with any of the projects to be located in the vicinity of the I-5/Beltline Interchange and the Gateway/Beltline Intersection.

SECTION 4

Project Description

The northern limit of the project along I-5 will include new ramp connections from the north at milepost 196.6 north of the Game Farm Road North overcrossing structure at milepost 195.8. The southern limits are the northern ramps to the I-105 interchange located at milepost 194.04. The western limits along Beltline will be the eastern ramps to the Coburg Road Interchange at milepost 11.85 (Beltline Highway). The eastern limit is the Game Farm Road South/Beltline Road intersection. Additional improvements will be made to Game Farm Road North/International Way intersection to Beltline and along Gateway just to the south of Kruse Way and terminating before Gateway Loop/Gateway intersection.

Interstate 5 serves as an interstate freeway and is designated as an international trade corridor and freight route. Beltline Road, OR 126, to the west of I-5 serves as a principle arterial constructed to freeway standards and as a minor arterial to the east of I-5. The posted speeds are anticipated to be 55 miles per hour (mph) along I-5 as well as Beltline Road west of I-5 and 40 mph along Beltline Road to the east of I-5.

The No Build and three build alternatives are considered for environmental study. The proposed solution to the interchange, bike/pedestrian off-roadway improvements, and phasing concept plan are the same for each alternative. The differences among the alternatives occur with proposed improvements to the Gateway/Beltline Intersection. The following sections describe the physical characteristics of the proposed improvements.

4.1 Description of No Build and Financially Constrained Alternatives

4.1.1 No Build Alternative

The year 2000 No Build Alternative considers the existing regional transportation system, including the current interchange configuration and the present status of all study area roadways. This scenario can also be considered as "existing conditions." It also assumes maintenance of facilities at existing conditions into the future.

The year 2005 and 2025 No Build alternatives are mostly identical to the 2000 No Build Alternative within the study area. The intersection of Game Farm Road East and Gateway Street would meet preliminary signal warrants by the year 2005, so this intersection is assumed to be signalized in 2005. The future baseline scenarios include all of the regional programmed projects from TransPlan's Financially Constrained scenario, as well as a proportional expansion of the region's TDM program (see Appendix A).

4.1.2 Financially Constrained Alternative

The Financially Constrained alternative was developed for year 2025 purposes only. As discussed previously, it includes all programmed and unprogrammed projects from TransPlan's Financially Constrained scenario, including the planned four-lane Pioneer

Parkway Extension. For the purposes of this evaluation, the Financially Constrained scenario does not consider any improvements to the I-5/Beltline Interchange area. It does consider a proportional expansion of the region's TDM program, an expansion of the free bus program, and the implementation of a BRT network.

4.2 Interchange Improvements

The interchange is an access-controlled improvement as an element of the defense highway system. The proposed interchange form consists of a partial cloverleaf-A (loop ramps in advance of the overcrossing structure of I-5) with a single exit and entrance ramps from and to the I-5 mainline. The ramps have a separate decision point for eastbound or westbound movements. The highest-volume movement is a high-speed directional ramp for northbound I-5 to westbound Beltline movement. The design speed for each ramp is listed below:

- Northbound Exit to Gateway/Beltline 70 kilometers per hour (km/h) (45 mph)
- Northbound Flyover to westbound Beltline 80 km/h (50 mph)
- Northbound Loop entrance ramp 40 km/h (25 mph)
- Northbound Entrance ramp 40 km/h (25 mph)
- Southbound Exit to Beltline ramp 80 km/h (50 mph)
- Southbound Exit to Westbound Beltline 80 km/h (50 mph)
- Southbound Loop entrance ramp 40 km/h (25 mph)
- Southbound Entrance ramp 90 km/h (55 mph)

Interstate 5, north of Beltline, will consist of three 3.6-meter (12-foot) travel lanes in each direction with an outside shoulder of 3.6 meters (12 feet), inside shoulder of 3.0 meters (10 feet), and variable median. To the south, between Beltline and I-105, Interstate 5 will consist of three 3.6-meter (12-foot) travel lanes in each direction with an auxiliary lane of 3.6 meters (12 feet) to improve safe weaving movements, an outside shoulder of 3.6 meters (12 feet), inside shoulder of 3.0 meters (10 feet), and variable median. Section 6 provides a description of the typical roadway cross sections at key locations throughout the project. Barriers will be steepened fill slopes, retaining walls, and/or structures to minimize right-of-way impacts when it is cost-effective.

Beltline Road west of I-5 will consist of three 3.6-meter (12-foot) through-travel lanes with an auxiliary lane of 3.6 meters (12 feet) for safe weaving movements in each direction to the Beltline/Coburg Road Interchange. There will be an outside shoulder of 3.6 meters (12 feet), inside shoulder of 3.0 meters (10 feet), and a variable median width. The I-5/Beltline Road overcrossing structure will be widened to accommodate four 3.6-meter (12-foot) through-travel lanes, 2.4-meter (6-foot) outside shoulders, and 3.0-meter (10-foot) outside shoulders.

4.3 Bicycle and Pedestrian Facilities

Off-roadway bike/pedestrian facilities are proposed parallel to I-5 connecting to Game Farm Road West to the north and Harlow Road to the south. In addition, there is a proposed overcrossing of I-5 providing connectivity from Eugene to Springfield at Postal Way. The bike/pedestrian facility is a two-way 3.6-meter (12-foot) wide facility with a maximum vertical grade of 5 percent and maximum cross slope of 2 to 3 percent to comply with the

Americans with Disabilities Act (ADA). The facility will pass under the ramps in the northwest and southwest quadrants at a relatively flat grade to minimize the perceived safety hazard of the "tunnel effect." The minimum vertical clearance will be 3 meters (10 feet) through a box culvert of four ramps. The maximum horizontal curvature is a 12-meter (36-foot) radius for a design speed of 20 km/h (12 mph).

The bike/pedestrian facility then traverses in a southerly direction to connect to Harlow Road. There is a proposed connection to the west with Willakenzie Street providing entrance into the local neighborhood. Opposite Postal Way, the bike/pedestrian facility slopes upward to gain elevation to accommodate the overcrossing of I-5 to an elevation of approximately 7.2 meters (24 feet) above ground elevation prior to crossing of I-5 and then slopes back down to match ground level. The elevated section allows for a crossing of I-5 with a minimum vertical clearance of 5.2 meters (17 feet) from the surface of I-5 travel way to the bottom of the overcrossing structure without displacing residential dwellings. The horizontal alignment of the overcrossing is perpendicular to I-5 until reaching the east side where the fill section then angles to the northeast slightly and then east to match existing grade at Postal Way.

4.4 Intersection Improvements

Alternatives 1 and 2 utilize a single quadrant-connecting road utilizing Hutton Road or construction of a new street and Kruse Way. Alternative 3 is proposed as a couplet with Gateway southbound and Hutton northbound, with Gateway becoming two-way just south of Kruse Way.

4.4.1 Alternative 1: Hutton Road/Kruse Way Connector

Beltline Road east of I-5 to Game Farm Road South will consist of three 3.6-meter (12-foot) through-travel lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. Auxiliary left- and right-turn lanes are provided as shown in Figure 4-1. Improvements to Beltline Road will include a planted median and access will be limited.

Roadway improvements will require signal and lane modifications from International Way to the north and end prior to Gateway Loop to the South with two 3.6-meter (12-foot) through-travel lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. Auxiliary left- and right-turn lanes will be provided. Raised medians are proposed on Gateway from Game Farm Road East to Beltline and Beltline to Kruse Way. Access to adjacent properties will be right-in/right-out.

Improvements will be made to Hutton and Kruse Way to two 3.6-meter (12-foot) through lanes in each direction, two 3.6-meter (12-foot) left-turn lanes, 1.8-meter (6-foot) bike/shoulder, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. A raised median will be added from Beltline on Hutton and Kruse with a median break on the curve near the recent Kruse Way extension. Access to adjacent properties will be right-in/right-out. Typical street cross sections are shown in Figure 4-2.

Traffic circulation patterns will be altered by eliminating left-turning movements from the Gateway/Beltline intersection. These movements will occur at a new location, Hutton/

Beltline. Elimination of left turns from eastbound Beltline to northbound Game Farm Road North will require a through movement at Gateway, right turn on Hutton Road curving to Kruse Way followed by a right turn onto Gateway and returning as a through movement at Gateway/Beltline intersection. Northbound Gateway to westbound Beltline would be required to turn right onto Kruse curving to the left onto Hutton Road and then turning left onto Beltline and becoming a through movement at Gateway/Beltline. Cross property access rights will be acquired to increase mobility to and from properties in all quadrants of the Gateway/Beltline intersection.

4.4.2 Alternative 2: New Road/Kruse Way Connector

Beltline Road east of I-5 to Game Farm Road South will consist of three 3.6-meter (12-foot) through-travel lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. Auxiliary left- and right-turn lanes are provided as shown in Figure 4-3. Improvements to Beltline Road will include a planted median and access will be limited.

Roadway improvements will require signal and lane modifications from International Way to the north and end prior to Gateway Loop to the South with two 3.6-meter (12-foot) through-travel lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. Auxiliary left- and right-turn lanes will be provided. Raised medians are proposed on Gateway from Game Farm Road East to Beltline and Beltline to Kruse Way. Access to adjacent properties will be right-in/right-out.

Improvements will be made to Kruse Way extending to the east and curving to the north with a new connection to Beltline Road to the east of Hutton Road. Improvements along Kruse Way will include two 3.6-meter (12-foot) through lanes in each direction, two 3.6-meter (12-foot) left-turn lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. Typical street cross sections are shown in Figure 4-4. Access to adjacent properties will be right-in/right-out in these locations. Hutton Road will remain a full movement intersection at Kruse Way and disconnected from Beltline to limit cut-through traffic to emergency vehicles only.

Circulation patterns will be altered by eliminating left-turning movements from the Gateway/Beltline intersection. These movements will occur at a new location, New Road/ Beltline. Elimination of left turns from eastbound Beltline to northbound Game Farm Road North will require a through movement at Gateway, right turn on New Road curving to Kruse Way followed by a right turn onto Gateway and returning as a through movement at Gateway/Beltline intersection. Northbound Gateway to westbound Beltline would be required to turn right onto Kruse curving to the left and then turning left onto Beltline and becoming a through movement at Gateway/Beltline. Cross property access rights will be acquired to increase mobility to and from properties in all quadrants of the Gateway/ Beltline intersection.

ALTERNATIVE 1
HUTTON ROAD/KRUSE WAY CONNECTOR
Not To Scale
FIGURE 4-1

N

LEGEND

PROPOSED R/W

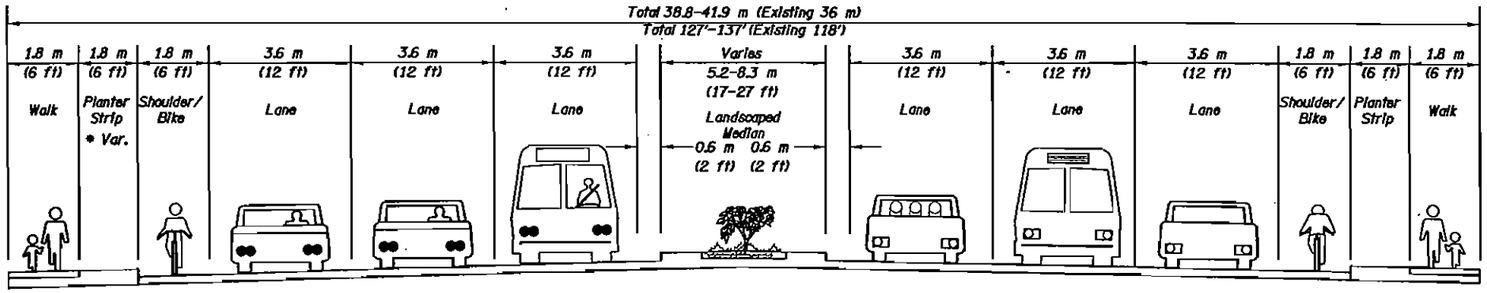
CONCRETE CURB

LANE LINE

RAISED MEDIAN ISLAND

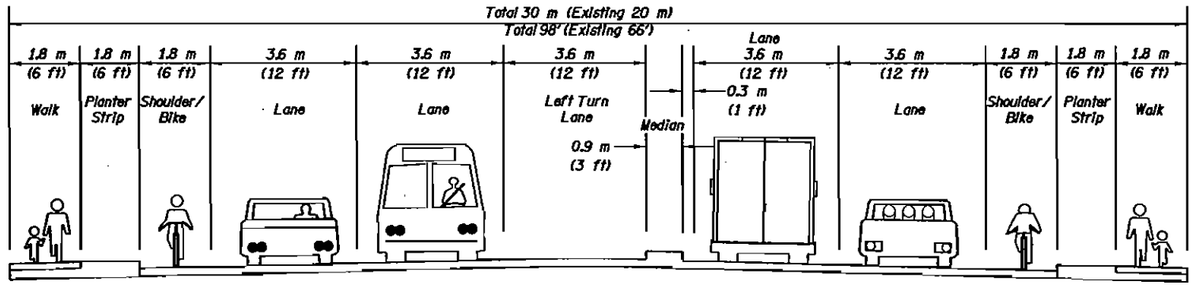
PAINTED MEDIAN

S SIGNAL

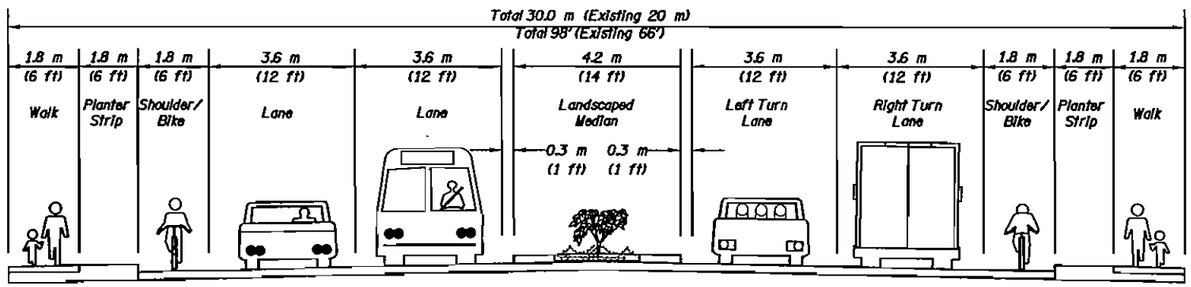


BELTLINE EAST OF GATEWAY LOOKING WEST

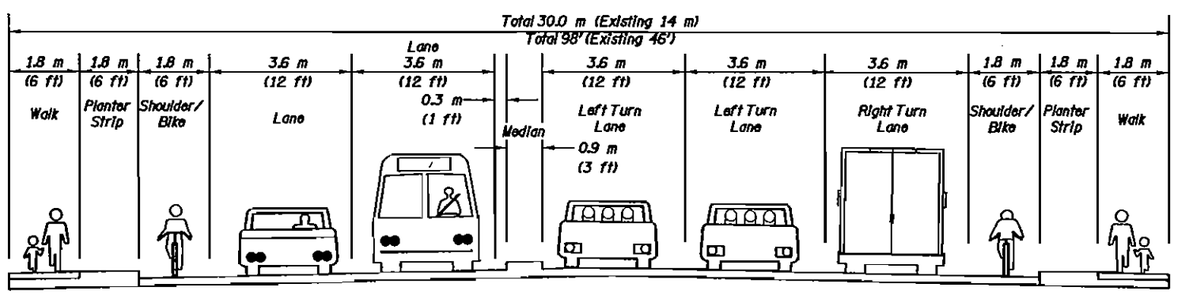
* Planter Strip Narrows At Holiday Inn.



GATEWAY NORTH OF KRUSE LOOKING NORTH



KRUSE WAY LOOKING WEST



HUTTON ROAD LOOKING NORTH

ALTERNATIVE I
HUTTON ROAD/KRUSE WAY CONNECTOR

CROSS SECTIONS
FIGURE 4-2

I-5 BELTLINE INTERCHANGE PROJECT

ALTERNATIVE 2
NEW ROAD/KRUSE WAY CONNECTOR
Not To Scale
FIGURE 4-3

N

LEGEND

PROPOSED R/W

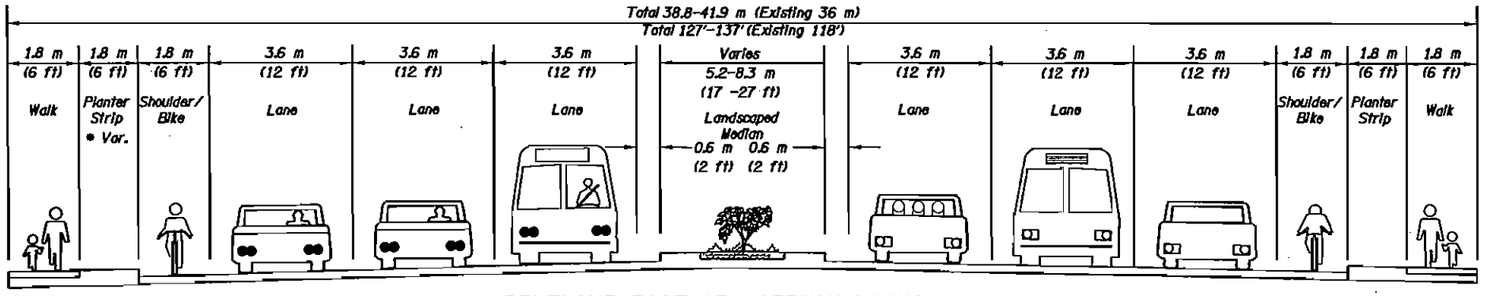
CONCRETE CURB

LANE LINE

RAISED MEDIAN/ISLAND

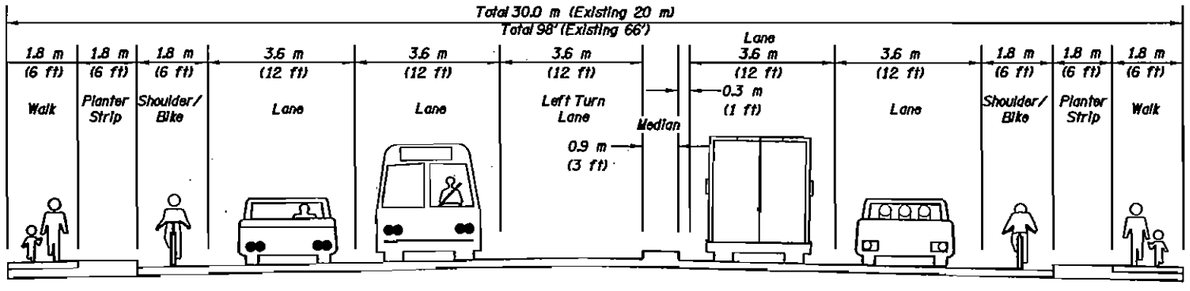
PAINTED MEDIAN

S SIGNAL

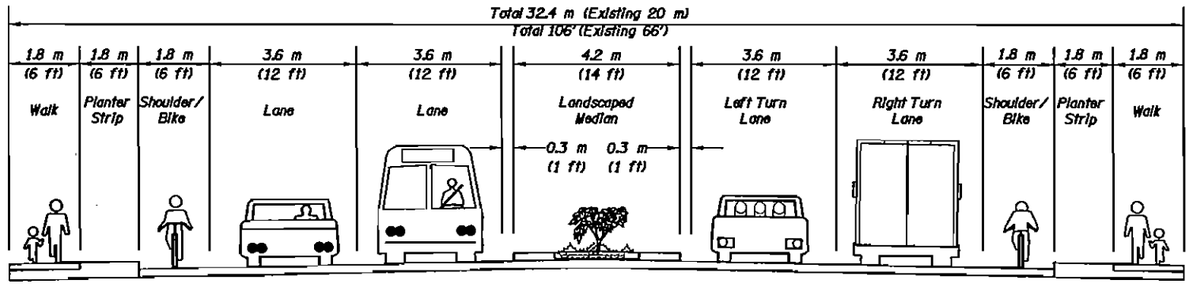


BELTLINE EAST OF GATEWAY LOOKING WEST

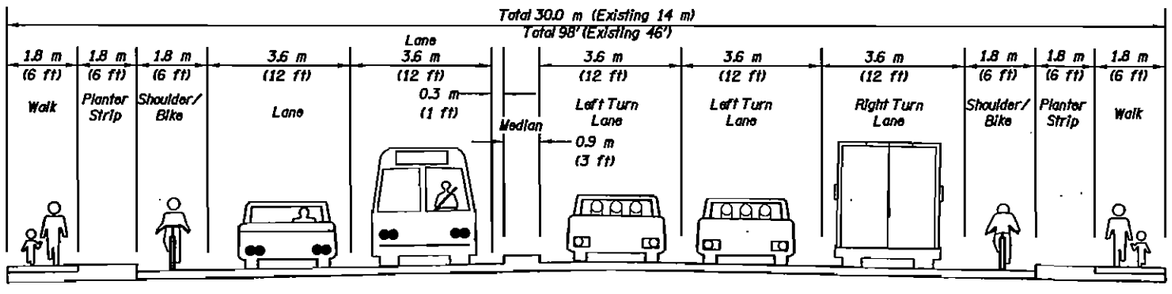
* Planter Strip Narrows At Holiday Inn



GATEWAY NORTH OF KRUSEWAY LOOKING NORTH



KRUSE WAY LOOKING WEST



NEW ROAD EAST OF HUTTON LOOKING NORTH

ALTERNATIVE 2
NEW ROAD/KRUSE WAY CONNECTOR

CROSS SECTIONS
FIGURE 4-4

I-5/BELTLINE INTERCHANGE PROJECT

4.4.3 Alternative 3: Gateway Street and Hutton Road/Kruse Way Couplet

Beltline Road east of I-5 to Game Farm Road South will consist of three 3.6-meter (12-foot) through-travel lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. Auxiliary left- and right-turn lanes are provided as shown in Figure 4-5. Improvements to Beltline Road will include a planted median and access will be limited.

From International Way to Beltline Road improvements will consist of two 3.6-meter (12-foot) through-travel lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. Auxiliary left- and right-turn lanes will be provided as shown. Raised medians are proposed on Gateway from Game Farm Road East to Beltline. Access to adjacent properties will be right-in/right-out. Typical street cross sections are shown in Figure 4-6.

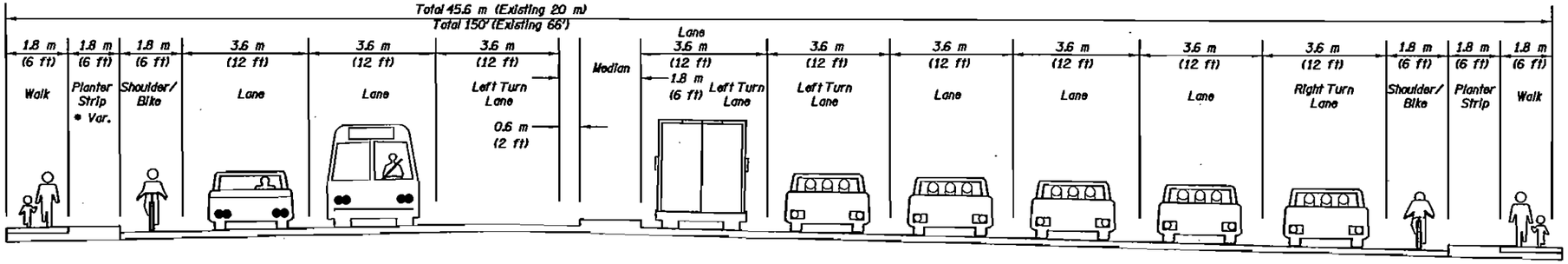
Gateway from Beltline to Kruse Way will become one-way southbound consisting of three 3.6-meter (12-foot) travel lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. The leftmost lane will be dropped as a stop sign-controlled left-turn lane at Kruse Way. In the vicinity of Kruse Way, northbound traffic along Gateway will curve to the right along a modified alignment of Kruse Way to the east, curving north to Hutton/Beltline intersection. The northbound segment will consist of three 3.6-meter (12-foot) travel lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. Gateway to the south of Kruse Way, will return to two-way traffic and match into the existing section. There will be no raised medians in the one-way segments and access will consist of right-in/right-out or left-in/left-out depending on the property direction and flow of traffic.

4.5 Project Phasing

Because of funding limitations, it is anticipated that this project will be constructed in phases over a period of several years. Phases constructed will be based upon logical traffic flows and ability to function for the time period they will operate without future phases in place. As described below, there are a number of possible plans and subdivisions of phases that could be implemented. For the purposes of this analysis, we have outlined three broad phases over a 15-year period that would function adequately.

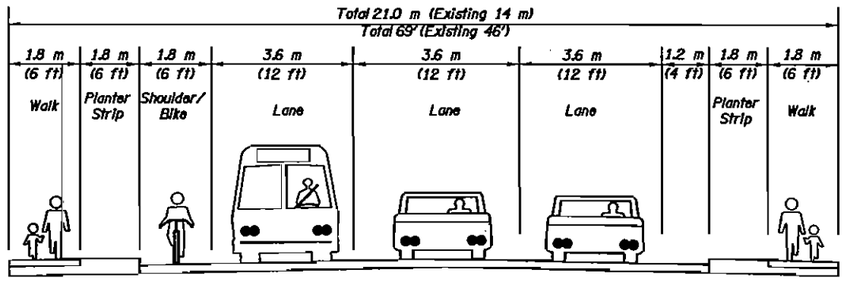
The conceptual phasing plan is divided into three parts. The actual phasing plan could result in further subdividing the concept phasing plan or reducing the number of phases. The proposed timing sequence is based on addressing immediate safety related deficiencies followed by anticipated congestion and safety related concerns. Depending on funding, the bike/pedestrian facilities south of Beltline including the I-5 crossing could be constructed as part of Phase 1,2, or 3. The roadway improvements and bike/pedestrian crossing of Beltline described by phase as follows:

- The first phase anticipated in 2005 consists of constructing new ramps I-5 northbound to westbound and eastbound Beltline, I-5 southbound to westbound Beltline, partial construction of the I-5 northbound onramp, and separated collector distributor road I-5 southbound. The existing ramp connections to Beltline Road on the east side would be removed as well as the loop in the northeast quadrant of the interchange, increasing the

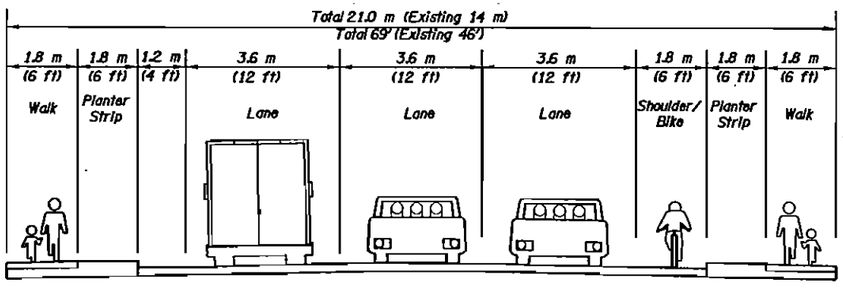


BELTLINE EAST OF GATEWAY LOOKING WEST

* Planter Strip Narrows At Holiday Inn



GATEWAY (ONEWAY SOUTHBOUND) NORTH OF KRUSE WAY LOOKING NORTH



KRUSE WAY / HUTTON ROAD (ONEWAY NORTHBOUND) LOOKING NORTH

ALTERNATIVE 3
GATEWAY STREET & HUTTON ROAD\KRUSE WAY COUPLET

CROSS SECTIONS
FIGURE 4-6

I-5/BELTLINE INTERCHANGE PROJECT

ALTERNATIVE 3
GATEWAY STREET & HUTTON ROAD/KRUSE WAY COUPLET
Not To Scale
FIGURE 4-5

N

LEGEND

PROPOSED R/W

CONCRETE CURB

LANE LINE

RAISED MEDIAN ISLAND

PAINTED MEDIAN

SIGNAL

4.4.3 Alternative 3: Gateway Street and Hutton Road/Kruse Way Couplet

Beltline Road east of I-5 to Game Farm Road South will consist of three 3.6-meter (12-foot) through-travel lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. Auxiliary left- and right-turn lanes are provided as shown in Figure 4-5. Improvements to Beltline Road will include a planted median and access will be limited.

From International Way to Beltline Road improvements will consist of two 3.6-meter (12-foot) through-travel lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. Auxiliary left- and right-turn lanes will be provided as shown. Raised medians are proposed on Gateway from Game Farm Road East to Beltline. Access to adjacent properties will be right-in/right-out. Typical street cross sections are shown in Figure 4-6.

Gateway from Beltline to Kruse Way will become one-way southbound consisting of three 3.6-meter (12-foot) travel lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. The leftmost lane will be dropped as a stop sign-controlled left-turn lane at Kruse Way. In the vicinity of Kruse Way, northbound traffic along Gateway will curve to the right along a modified alignment of Kruse Way to the east, curving north to Hutton/Beltline intersection. The northbound segment will consist of three 3.6-meter (12-foot) travel lanes, 1.8-meter (6-foot) bike lane, 1.8-meter (6-foot) planter strip, and 1.8-meter (6-foot) sidewalk. Gateway to the south of Kruse Way, will return to two-way traffic and match into the existing section. There will be no raised medians in the one-way segments and access will consist of right-in/right-out or left-in/left-out depending on the property direction and flow of traffic.

4.5 Project Phasing

Because of funding limitations, it is anticipated that this project will be constructed in phases over a period of several years. Phases constructed will be based upon logical traffic flows and ability to function for the time period they will operate without future phases in place. As described below, there are a number of possible plans and subdivisions of phases that could be implemented. For the purposes of this analysis, we have outlined three broad phases over a 15-year period that would function adequately.

The conceptual phasing plan is divided into three parts. The actual phasing plan could result in further subdividing the concept phasing plan or reducing the number of phases. The proposed timing sequence is based on addressing immediate safety related deficiencies followed by anticipated congestion and safety related concerns. Depending on funding, the bike/pedestrian facilities south of Beltline including the I-5 crossing could be constructed as part of Phase 1,2, or 3. The roadway improvements and bike/pedestrian crossing of Beltline described by phase as follows:

- The first phase anticipated in 2005 consists of constructing new ramps I-5 northbound to westbound and eastbound Beltline, I-5 southbound to westbound Beltline, partial construction of the I-5 northbound onramp, and separated collector distributor road I-5 southbound. The existing ramp connections to Beltline Road on the east side would be removed as well as the loop in the northeast quadrant of the interchange, increasing the

weaving distance between the northbound ramp and Gateway/Beltline intersection. An element of the bike/pedestrian Beltline crossing would be built with the southbound ramps.

- The second phase anticipated in year 2015 addresses capacity deficiencies at the Gateway/Beltline intersection. Improvements would be made on Beltline, Gateway, Game Farm Road North, Kruse Way, and Hutton Road in accordance with the alternative selected. The actual construction year would depend upon the rate of growth in the immediate vicinity and background growth to base volumes in the regional area as well as available funding.
- The third phase is anticipated in year 2020. Improvements would include Beltline eastbound to I-5 southbound and northbound ramps, completion of the I-5 northbound freeway entrance ramp, construction of the I-5 southbound to Beltline eastbound ramp, and rebuilding of the loop in the northwest quadrant. The loop in the southwest quadrant and the southbound collector distributor road would be removed. An element of the bike/pedestrian Beltline crossing would be built with the southbound ramps.

SECTION 5

Analysis Methods Overview

This section briefly presents the analysis scenarios studied in this report and the travel demand modeling process used to obtain future year traffic volume projections. In addition, the methodology used to address the application of Oregon Administration Rule on Access Management (734-051-0370) is also discussed.

5.1 Alternatives Studied

The analysis scenarios and conditions studied in this report, along with the applicable analysis time periods, are highlighted in Table 5-1. The scenarios encompass the project alternatives described in the previous section including the No Build Alternative, Financially Constrained System, Alternative 1—Hutton Road/Kruse Way Connector, Alternative 2—New Road/Kruse Way Connector, and Alternative 3—Gateway Street and Hutton Road/Kruse Way Couplet. Scenario 1 establishes the base case for the No Build and Financially Constrained System improvements, see Section 6 for a discussion of the results. Scenario 2 evaluates the Build solutions, see Section 7 for a discussion of the results.

TABLE 5-1
Analysis Scenarios, Alternatives and Analysis Years

Conditions	Year 2000	Year 2005	Year 2025
Scenario 1 – No Build Travel Demand and Operations Baseline (Section 6)			
No Build ("Existing Conditions")	X		
No Build ("Future baseline scenario") includes TransPlan's funded or Programmed Projects only (excluding improvements to I-5/Beltline)		X	X
Financially Constrained System includes TransPlan's programmed and unprogrammed projects (excluding improvements to I-5/Beltline)			X
Scenario 2 – Build Alternative Travel Demand and Operations (Section 7)			
Alternative 1 – Hutton Road/Kruse Way Connector, including Programmed Projects from TransPlan's Financially Constrained scenario		X	
Alternative 2 – New Road/Kruse Way Connector, including Programmed Projects from TransPlan's Financially Constrained scenario		X	
Alternative 3 – Gateway Street and Hutton Road/Kruse Way Couplet, including Programmed Projects from TransPlan's Financially Constrained scenario		X	
Financially Constrained System includes TransPlan's programmed and unprogrammed Projects (excluding improvements to I-5/Beltline)			X
Alternative 1– Hutton Road/Kruse Way Connector, including Programmed and Unprogrammed Projects			X
Alternative 2 – New Road/Kruse Way Connector, including Programmed and Unprogrammed Projects			X
Alternative 3 – Gateway Street and Hutton Road/Kruse Way Couplet, including Programmed and Unprogrammed Projects			X

The year 2000 No Build Alternative considers the existing regional transportation system, including the current interchange configuration and the present status of all study area roadways. This scenario can also be considered as "existing conditions."

Year 2005 conditions are assessed in this report since the preferred interchange project would likely be constructed and operating near that year. Year 2005 conditions, for each of the three interchange alternatives, were built upon the financially constrained system of programmed projects.

Year 2025 conditions provide a 20-year horizon from the project's likely completion date. Year 2025 conditions are assessed for a Financially Constrained System that includes all of TransPlan's Programmed in addition to the Unprogrammed projects included in the plan, excluding improvements to the I-5/Beltline Interchange (unprogrammed projects currently do not have funding sources, but are expected to within the 20-year plan). Year 2025

conditions for each of the three interchange alternatives were built upon the financially constrained system of programmed and unprogrammed projects.

5.2 Travel Demand Modeling Process

The Lane Council of Governments (LCOG) has developed models that predict future travel patterns and traffic volumes based on planned growth according to land use plans in the communities of Eugene and Springfield and future transportation system improvements. The travel demand models used in this study fully account for the population and employment growth forecasts contained within TransPlan, the metropolitan region's TSP.

As noted above, TransPlan contains numerous transportation facility improvements that are considered Programmed under the Financially Constrained scenario, as well as projects that are currently Unprogrammed. A list of TransPlan's Financially Constrained projects is included in Appendix A.

LCOG provided years 1995 and 2015 daily and design hour modeling output information to ODOT's Transportation Planning Analysis Unit (TPAU) for each of the alternatives previously discussed. The year 1995 model was calibrated to replicate actual existing land uses, travel patterns, and traffic volumes. The 1995 and 2015 model volumes were adjusted to 2000 and 2025 levels, respectively, using growth rates from the model scenarios. The 2025 model volumes were post-processed following NCHRP Report 255 guidelines. Year 2005 traffic volumes were interpolated using the 2000 and 2025 results.

The traffic modeling assumptions for the Beltline Interchange Project were carefully referenced against the TransPlan base network. This network is the regional model used for transportation planning in the Eugene–Springfield Metropolitan area. In addition, traffic volumes produced for the Beltline Interchange Project were further referenced against the City of Springfield's North Gateway Transportation Improvement Area (TIA) Update and against ODOT's Beltline Facility Plan.

The I-5/Beltline TransPlan model scenarios are more conservative than the scenario followed in the Beltline Facility Plan. However, 10 years later, the 2025 I-5/Beltline Interchange Project volumes do reach the same level as the 2015 Facility Plan volumes. Both the TransPlan and Facility Plan scenarios are consistent with the independent method followed in the North Gateway TIA, which used trip generation values for future developments to obtain the same level of volumes.

The year 2000 and 2005 volumes are consistent with the North Gateway TIA Update and the Beltline Facility Plan. The 2025 volumes are consistent with the 2005 buildout volumes in the North Gateway TIA Update and the 2015 buildout volumes in the Beltline Facility Plan.

The volumes computed for the I-5/Interchange Project are consistent with past work and accurately portray existing and future conditions. Because the project volumes are consistent with the North Gateway TIA Update and the Beltline Facility Plan and the alternatives and proposed mitigation in the TIA and the Plan are similar under buildout conditions, it is likely that project solutions will be of the same magnitude.

5.3 Application of 734-051-0370

The sections of 734-051-0370 are shown in *italics* with a brief explanation of the approach taken to comply with the intent of the rule as follows:

(1) This rule applies to the construction of all new highways and interchanges, all highway or interchange modernization projects, or any other roadway or interchange project as determined by the Region Manager, such as preservation, safety and operation projects that affect curb placement or sidewalks.

The I-5/Beltline Interchange project consists of reconstruction of an existing interchange for the purposes of improving safety and operations in an urbanizing area expected to continue to develop.

(2) Supporting improvements, such as road networks, channelization, medians and access control must be consistent with the Access Management Policies in the 1999 Oregon Highway Plan.

State highway right-of-way does not extend the full distance of the area identified in the 1999 OHP. Local government rights-of-way fall within the area defined by the OHP. Therefore, joint meetings were held with ODOT staff and City of Springfield to determine the access management measures to be undertaken by this project. Raised median and accesses to public roads and private property were discussed. At this time a preliminary access management plan has been developed. The exact resolution of these issues are subject to ground surveys and engineering design.

(3) The following apply to mitigation, modification or closure of approaches for project development:

(a) Where the Department develops a highway project as described in section (1) of this rule, the Region Manager may review all approaches within the project limits and may mitigate as set forth in OAR 734-051-0210, modify or close approaches as set forth in OAR 734-051-0270 and 734-051-0380(4) if necessary to meet the classification of the highway and the highway segment objectives, highway mobility standards, spacing standards, and safety criteria (as set forth in OAR 734-051-00080(3))

With the level of built environment directly in the interchange area, a number of alternatives were considered. Several build alternatives that meet the access spacing standards were examined as well as some that do not meet the standards. The build alternatives that meet the spacing standards were screened out on a comparative basis using an evaluation process that was developed by the Stakeholder Working Group and approved by the Beltline Decision Team. Membership of these two groups consisted of a cross section of interests including residents, businesses, transportation user groups, and public agencies at local, state, and federal levels.

The screening process was structured in a tiered process to eliminate infeasible solutions. The feasible solutions were evaluated against a set of 26 criteria including transportation operations and safety, cost, implementation, human environment, and natural environmental factors. and then compare remaining alternatives by evaluating a variety of factors. The various solutions were ranked and three alternatives chosen for further study.

Three alternatives have been examined in more detail, all of which require deviations from the standards set forth in Division 51, particularly the spacing of public street access proximity to the interchange ramp terminal. On Beltline, the Game Farm Road North/Gateway Intersection is approximately 650' from the ramp terminal rather than the required 1320' as well as Hutton Road. Private property access along Game Farm Road North, Gateway Street, and Hutton Road have an effect on the interchange operations due to queuing resulting from the traffic control signal at the intersection. Therefore, private access along these streets and median control was considered.

The properties falling within the interchange management area with existing access are businesses. All businesses occupying all properties within the interchange area were contacted and were offered the opportunity to meet to discuss the project alternatives, business purpose, customer access needs, and possible access mitigation measures. The information gathered from these meetings along with safety and operational data were used as a means of determining the proposed access locations.

(b) *In development a highway project, the Region Manager shall mitigate, modify or close approaches pursuant to an adopted access management plan or interchange area management plan that is approved by the Department. Justification for not adhering the adopted access management plan objectives includes, but is not limited to a change of circumstances since the adoption of the plan;*

Currently, there is not an adopted access management plan or interchange area management plan approved by the state and/or City of Springfield governing access. The City of Springfield does call for access management along Gateway Street as part of the Gateway Refinement Plan. Presumably a raised median and consolidation of accesses to reduce the number of conflicts would be consistent with the plan's intent.

(c) *In absence of an adopted access management plan or interchange area management plan approved by the Department, the Region Manager, when reviewing private approach spacing shall consider:*

(A) Mitigation or modification of approaches

(B) Closing approaches to those parcels with multiple approaches; and

(C) Closing approaches to parcels with alternative access to adjacent streets.

In coordination with state and city staff, accesses have been reviewed and preliminary access locations identified. Based on transportation operations, progression and queuing analysis using SYNCHRO, private access locations have been identified for elimination and consolidation to improve safety and operations while attempting to minimize right-of-way impacts. Right-of-way impacts include displacements, loss of landscaping, loss of parking, and changes to internal circulation based upon existing improvements, business purpose and customer access needs.

(d) *Where the approaches within a project cannot meet the classification of the highway and the highway segment designation objectives, highway mobility standards, spacing standards and safety criteria, the Region Manager must document the reasons for any deviation and report those documented reasons to the Deputy Executive Director and the Executive Director of the Transportation Development Division.*

Deviations have not been documented for approval at this time. It is anticipated that refinement of access location will occur during final design of the preferred alternative. However, analysis has been performed to evaluated mobility and storage requirements taken into account in determining the locations depicted for each individual alternative.

(4) The following applies to improvement of an existing interchange or construction of a new interchange:

(a) Necessary supporting improvements, such as road networks, channelization, medians and access control in the interchange management area must be identified in the local comprehensive plan and committed with an identified funding source or in place;

The design includes local road system improvements, channelization, medians, and new access control limits. However, the project is included in TransPlan, which addresses its standing within the adopted Eugene – Springfield Metropolitan Area General Plan. Therefore, no comprehensive plan amendment would be necessary.

(b) Approaches to cross streets shall be consistent with established standards for a distance on either side of the ramp connections so as to reduce conflicts and manage ramp operations. The Interchange Access Management Spacing Standards supercede the Access Management Classification and Spacing Standards, as set forth in OAR 734-051-0190, unless the latter distance standards are greater;

A deviation will be required for the spacing to the approach of Game Farm Road North/Gateway Street Intersection and Coburg Road Interchange. Depending on the preferred alternative, Hutton Road may also require a deviation.

(c) Where possible, interchanges on Freeways and Expressways shall connect to state highways, major or minor arterials;

This requirement has been satisfied to the west and not to the east as previously explained.

(d) Interchanges on Statewide, Region or District Highways may connect to state highways, major or minor arterials, other county or city roads, or private roads, as appropriate; and

This requirement is not applicable to this project.

(e) The design of interchanges must consider the need for transit and park and ride facilities, along with the interchange's effect on pedestrian and bicycle traffic.

The project is part of a greater transportation system improvement program as detailed by TransPlan. TransPlan addresses Transportation Demand Management, Transportation System Improvements, and Land Use as an integrated set of solutions. At this location, transit will be accommodated along with other motorized vehicles. Amenities for transit service may be addressed further in final design. The Gateway Mall is located near the interchange and currently served by transit. It's official designation as a park and ride may not be necessary. Pedestrian and bicycle traffic have been accommodated both on street and through separate facilities.

SECTION 6

No Build and Financially Constrained Alternatives Evaluation

This section presents the analysis results of the No Build and Financially Constrained alternatives by providing an evaluation of daily and peak period traffic volumes, travel patterns, freeway and local street traffic impacts, and nonautomobile mode impacts for both alternatives. In addition, traffic volume comparisons are made between TransPlan's Financially Constrained condition and along with a scenario that does not include the Pioneer Parkway Extension.

6.1 Existing and Projected Daily Traffic Volumes

6.1.1 Daily Traffic Volumes and Forecasts

No Build existing and projected daily traffic volumes are listed in Table 6-1. Projected daily traffic volumes for the Financially Constrained System are also shown. Figures B-1 through B-4 in Appendix B illustrate the traffic volume information.

TABLE 6-1
No Build and Financially Constrained System Alternatives
Average Daily Traffic Volumes and Forecasts

Location	No Build			Financially Constrained
	Year 2000	Year 2005	Year 2025	Year 2025
Highway Segments				
I-5 n/o Beltline	41,600	47,200	78,500	78,700
I-5 s/o Beltline	63,500	70,100	103,400	97,600
Beltline w/o I-5	54,700	59,000	80,600	79,300
Beltline w/o Gateway	34,600	38,900	62,900	62,200
I-5/Beltline Ramps				
NB-to-EB	5,500	6,100	9,800	8,800
NB-to-WB	13,100	13,700	16,100	14,500
SB-to-EB	1,700	2,000	4,500	4,800
SB-to-WB	4,700	5,100	7,500	7,500
EB-to-NB	4,300	4,600	6,800	7,100
EB-to-SB	11,800	12,400	14,600	13,300
WB-to-NB	2,200	2,600	4,900	5,000
WB-to-SB	4,400	5,000	8,100	6,700
Local Roads				
Beltline e/o Hutton	10,100	11,000	15,600	32,600
Pioneer Pkwy. e/o GFRS	n/a	n/a	n/a	34,400
Gateway n/o Beltline	13,400	15,200	26,300	23,800
Gateway s/o Beltline	28,200	31,700	51,600	33,300
GFRN n/o International	9,400	10,900	19,000	18,600
International e/o GFRN	4,900	5,600	9,200	8,900
GFRE e/o GFRN	4,700	5,400	10,000	12,200
GFRS s/o Beltline	13,400	14,800	23,400	7,000

Notes:

e/o = east of
n/o = north of
s/o = south of
w/o = west of

EB = eastbound
NB = northbound
SB = southbound
WB = westbound.

6.1.2 Comparison of Daily Traffic Volumes for the No Build Scenario

Compared to year 2000 conditions, by 2025 daily traffic volumes are projected to increase substantially throughout the study area (see Table 6-1). Under the No Build, traffic volumes on I-5 north of Beltline are expected to increase almost 90 percent (from 41,600 to 78,500 vpd), while volumes on I-5 to the south of Beltline are estimated to grow over 60 percent (from 63,500 to 103,400 vpd). Beltline Highway traffic volumes, to the west of I-5, are projected to increase by over 45 percent (from 54,700 to 80,600 vpd).

Two-way daily traffic volumes along Beltline, just to the west of Gateway, are estimated to increase from 34,600 vehicles in 2000 to 62,900 vehicles in 2025, an increase of over 80 percent.

There are eight possible ramp movements between I-5 and Beltline. The heaviest traveled ramps—the eastbound Beltline Highway to southbound I-5 ramp and the reciprocal northbound I-5 to westbound Beltline Highway ramp—are expected to see daily traffic volume growth of almost 24 percent by 2025. The lowest traveled ramps—the southbound I-5 to eastbound Beltline and the reciprocal westbound Beltline to northbound I-5 ramp—are predicted to experience traffic growth of up to 165 percent.

Daily traffic volumes for the other four ramp movements, all of which currently serve moderate volumes, are estimated to increase from about 60 to 85 percent compared to existing conditions.

Traffic volumes on local roadways east of the interchange are also projected to increase substantially. Compared to year 2000 conditions, by 2025 traffic volumes on Beltline east of I-5 are expected to increase almost 55 percent (from 10,100 to 15,600 vpd). Gateway, to the north of Beltline, is expected to see traffic grow by over 95 percent (from 13,400 to 26,300 vpd), while Game Farm Road North, to the north of International, is expected to have daily traffic volumes increase by over 100 percent (from 9,400 to 19,000 vpd) between 2000 and 2025.

Other roadways north of Beltline are also expected to experience significantly increased traffic demands because of expanding industrial development. Daily traffic on International, east of Game Farm Road North, is predicted to grow almost 90 percent (from 4,900 to 9,200 vpd), while on Game Farm Road East, east of Game Farm Road North, traffic is estimated to increase over 110 percent (from 4,700 to 10,000 vpd).

Roadways just to the south of Beltline are also projected to experience substantial traffic growth by 2025. Traffic on Gateway, just south of Beltline, is predicted to grow by almost 85 percent (from 28,200 to 51,600 vpd). Daily traffic on Game Farm Road South, also to the south of Beltline, is estimated to increase by 75 percent (from 13,400 to 23,400 vpd).

6.1.3 Comparison of the No Build and Financially Constrained System

As discussed previously, the year 2025 Financially Constrained System used for comparative purposes in this report includes all of TransPlan's programmed and unprogrammed transportation projects (except for improvements to the I-5/Beltline Interchange). A list of projects considered in the Financially Constrained System, including the Pioneer Parkway Extension, is provided in Appendix A.

The above 2025 Financially Constrained System, but excluding the Pioneer Parkway Extension, was compared against the 2025 No Build (the latter of which includes all of TransPlan's programmed projects) to understand the extent of study area traffic volume differences attributable solely to TransPlan's uncommitted projects besides the Pioneer Parkway Extension.

According to travel demand modeling results, future traffic levels between the two scenarios (with and without the Pioneer Parkway) would vary by up to only a few

percentage points along the study area roadways. Since daily traffic volumes typically fluctuate by up to 10 percent and due to the model's constraints, the variance in resulting travel demands for the two scenarios is statistically insignificant. In other words, all of TransPlan's unprogrammed financially constrained projects, except for the Pioneer Parkway Extension, would only marginally affect traffic volumes on study area roadways. Another way of viewing this is that study area traffic volumes will be about the same if some or even most of TransPlan's unprogrammed projects (except the Pioneer Parkway Extension) are constructed or not by 2025.

For these reasons, the full 2025 Financially Constrained System, including all programmed and unprogrammed improvements inside and outside of the study area (except for improvements to the I-5/Beltline Interchange) was used for comparative purposes.

To understand the effect TransPlan's unprogrammed Pioneer Parkway Extension project would have on study area roadways, the last two columns in Table 6-1 compare the No Build scenario's year 2025 traffic projections against the Financially Constrained System.

The Pioneer Parkway Extension would generally not change daily traffic levels on I-5 north of Beltline or on Beltline Highway to the west of I-5. However, daily traffic volumes on I-5 south of Beltline would decrease by over 5 percent (from 103,400 to 97,600 vpd).

With the Pioneer Parkway Extension, daily traffic volumes along the interchange's ramps would decrease by up to 17 percent on each ramp, except for the westbound Beltline to northbound I-5 ramp and the reciprocal southbound I-5 to eastbound Beltline ramp, which would see traffic volumes increase by 2 to 7 percent; and the southbound I-5 to westbound Beltline Highway ramp and the reciprocal eastbound Beltline Highway to northbound I-5 ramp, which would have daily traffic increases of up to 4 percent.

Development of the Pioneer Parkway Extension by 2025 would substantially increase traffic levels along Beltline, to the east of Gateway. Two-way daily traffic volumes would increase almost 110 percent (from 15,600 to 32,600 vpd). Traffic levels on Gateway, to the north of Beltline, would decrease by about 10 percent (from 26,300 to 23,800 vpd), while volumes on Game Farm Road North, to the north of International, would decrease by just about 2 percent. Daily traffic on International, east of Game Farm Road North, would decrease by 3 percent, while on Game Farm Road East, east of Game Farm Road North, traffic would increase by over 20 percent (from 10,000 to 12,200 vpd).

With the Pioneer Parkway Extension, roadways just to the south of Beltline would experience decreased traffic levels by 2025. Traffic on Gateway, just south of Beltline, would decrease by 35 percent (from 51,600 to 33,300 vpd). Daily traffic on Game Farm Road South, also to the south of Beltline, would decrease by 70 percent (from 23,400 to 7,000 vpd).

The Pioneer Parkway Extension, just to the east of Game Farm Road South and Beltline, is projected to carry 34,400 vpd in both directions by 2025.

6.2 Existing and Projected Design Hour Traffic Volumes

This section presents existing and future project design hour volumes for the No Build and Financially Constrained alternatives. Design hour projections are used in designing transportation facilities and in assessing potential traffic and safety impacts.

6.2.1 Design Hour Traffic Volumes and Forecasts

No Build scenario existing and projected design hour traffic volumes are listed in Table 6-2. Projected design hour volumes for the Financially Constrained System are also shown. Figures B-5 through B-8 in Appendix B illustrate the traffic volume information.

TABLE 6-2
No Build and Financially Constrained System Alternatives
Design Hour Volumes and Forecasts

Location	No Build			Financially Constrained
	Year 2000	Year 2005	Year 2025	Year 2025
Highway Segments				
I-5 n/o Beltline	3,610	4,115	6,825	6,845
I-5 s/o Beltline	5,535	6,100	8,990	8,485
Beltline w/o I-5	4,755	5,135	7,010	6,905
Beltline w/o Gateway	3,010	3,385	5,465	5,410
I-5/Beltline Ramps				
NB-to-EB	480	530	850	765
NB-to-WB	1,140	1,190	1,400	1,260
SB-to-EB	145	175	390	420
SB-to-WB	405	445	655	655
EB-to-NB	370	405	590	620
EB-to-SB	1,030	1,075	1,270	1,155
WB-to-NB	190	225	425	425
WB-to-SB	385	435	705	585
Local Roads				
Beltline e/o Hutton	880	955	1,360	2,835
Pioneer Pkwy. e/o GFRS	n/a	n/a	n/a	2,990
Gateway n/o Beltline	1,160	1,325	2,290	2,070
Gateway s/o Beltline	2,450	2,760	4,495	2,875
GFRN n/o International	820	945	1,655	1,620
International e/o GFRN	430	485	800	770
GFRE e/o GFRN	410	470	875	1,025
GFRS s/o Beltline	1,165	1,290	2,035	605

Notes:

e/o = east of	EB = eastbound
n/o = north of	NB = northbound
s/o = south of	SB = southbound
w/o = west of	WB = westbound

Figure 6-1 (which is a copy of Figure B-8 in Appendix B) illustrates the 2025 design hour traffic forecasts for the Financially Constrained alternative. The forecasts for this scenario are illustrated because they are compared with the Build alternatives 2025 traffic projections in the next sections of this report.

6.2.2 Comparison of Design Hour Traffic Volumes for No Build

As shown in Table 6-2, by 2025 design hour traffic volumes are projected to increase substantially. In fact, design hour traffic is expected to increase, on a percentage basis, similarly to the daily traffic volumes previously discussed.

Under the No Build scenarios, design hour traffic volumes on I-5 north of Beltline are expected to increase almost 90 percent (from 3,610 to 6,825 vehicles per hour [vph]), while volumes on I-5 to the south of Beltline are estimated to grow over 60 percent (from 5,535 to 8,990 vph). Beltline Highway traffic volumes, to the west of I-5, are projected to increase by over 45 percent (from 4,755 to 7,010 vph).

Two-way design hour traffic volumes along Beltline, just to the west of Gateway, are estimated to increase from 3,010 vehicles in 2000 to 5,465 vehicles in 2025, an increase of over 80 percent.

Design hour volumes along the I-5/Beltline ramps are expected to increase from about 23 percent (for the heaviest traveled ramps) to over 125 percent (for the lowest traveled ramps). By 2025, each ramp movement's design hour volume will increase between 220 and 370 vph compared to 2000 conditions.

Traffic volumes on local roadways east of the interchange are also projected to increase substantially. Compared to year 2000 conditions, by 2025 traffic volumes on Beltline east of I-5 are expected to increase 55 percent (from 880 to 1,360 vph). Gateway, to the north of Beltline, is expected to see traffic grow by over 95 percent (from 1,160 to 2,290 vph), while Game Farm Road North, to the north of International, is expected to have daily traffic volumes increase by over 100 percent (from 820 to 1,655 vph) between 2000 and 2025.

Other roadways north of Beltline are also expected to experience significantly increased traffic demands. Daily traffic on International, east of Game Farm Road North, is predicted to grow over 85 percent (from 430 to 800 vph), while on Game Farm Road East, east of Game Farm Road North, traffic is estimated to increase over 110 percent (from 410 to 875 vph).

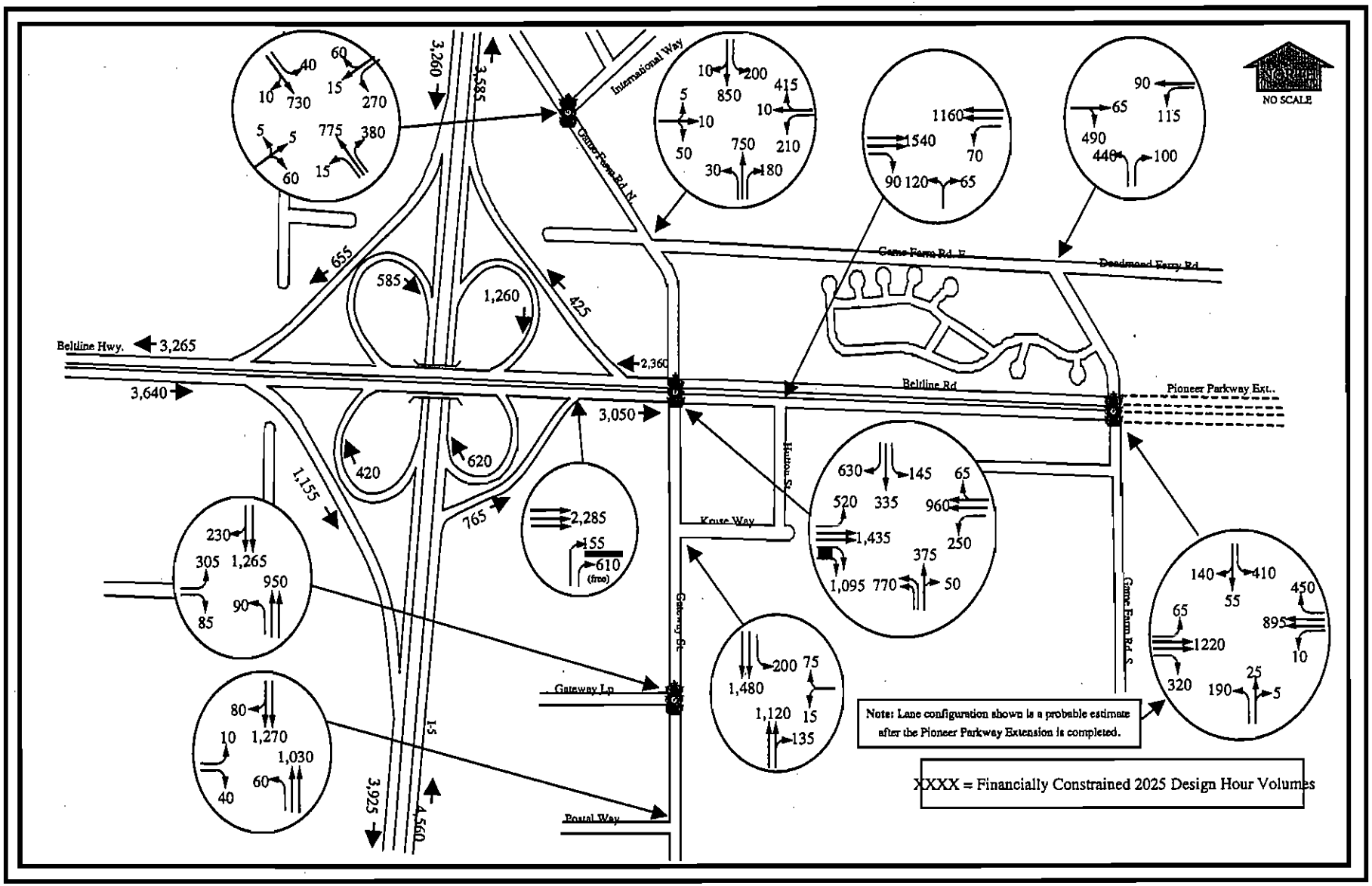
Roadways just to the south of Beltline are also projected to experience substantial traffic growth by 2025. Traffic on Gateway, just south of Beltline, is predicted to grow by almost 85 percent (from 2,450 to 4,495 vph). Daily traffic on Game Farm Road South, also to the south of Beltline, is estimated to increase by 75 percent (from 1,165 to 2,035 vph).

6.2.3 Comparison of the No Build and Financially Constrained System

The last two columns in Table 6-2 (on page 6-5) compare the No Build scenario's year 2025 design hour traffic projections against the Financially Constrained scenario.

As shown, provision of the Pioneer Parkway Extension would increase and decrease study area roadway traffic volumes similar to the percentage changes expected with daily traffic volumes, as previously discussed.

The Pioneer Parkway Extension would generally not change year 2025 design hour traffic levels on I-5 north of Beltline or on Beltline Highway to the west of I-5. However, design volumes on I-5 south of Beltline would decrease by over 5 percent (from 8,990 to 8,485 vph).



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Financially Constrained, Year 2025 Design Hour Volumes & Lane Configurations	FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema	**Figure 6-1**
	DATE : 08/17/00	Reviewed By: Brian G. Dunn, P.E.	

Figure 6-1 is also Figure B-8 in Appendix B

With the Pioneer Parkway Extension, design traffic volumes along the interchange's ramps would decrease by up to 17 percent on each ramp, except for the westbound Beltline to northbound I-5 ramp and the reciprocal southbound I-5 to eastbound Beltline ramp, which would see traffic volumes increase by up to 8 percent; and the southbound I-5 to westbound Beltline Highway ramp and the reciprocal eastbound Beltline Highway to northbound I-5 ramp, which would have design hour traffic increases of up to 5 percent.

Development of the Pioneer Parkway Extension by 2025 would substantially increase traffic levels along Beltline, to the east of Gateway. Two-way daily traffic volumes would increase almost 110 percent (from 1,360 to 2,835 vph). Traffic levels on Gateway, to the north of Beltline, would decrease by about 10 percent (from 2,290 to 2,070 vph), while volumes on Game Farm Road North, to the north of International, would decrease by just about 2 percent. Year 2025 design hour traffic on International, east of Game Farm Road North, would decrease by 4 percent, while on Game Farm Road East, east of Game Farm Road North, traffic would increase by 17 percent (from 875 to 1,025 vph).

With the Pioneer Parkway Extension, roadways just to the south of Beltline would experience decreased traffic levels by 2025. Design hour traffic on Gateway, just south of Beltline, would decrease by over 35 percent (from 4,495 vph to 2,875 vph). Daily traffic on Game Farm Road South, also to the south of Beltline, would decrease by 70 percent (from 2,035 to 605 vph).

The Pioneer Parkway Extension, just to the east of Game Farm Road South and Beltline, is projected to carry just under 3,000 vph in both directions by 2025.

6.2.4 Travel Patterns

Under year 2000 conditions, about 97,200 trips traverse through the interchange each day. About 18 percent of the total motorized vehicle trips through the interchange proceed through Eugene and Springfield on I-5; that is, they begin and end outside both the Eugene and Springfield city limits. Another 44 percent of the trips going through the interchange are external, either originating or ending within the combined city limits. Finally, about 38 percent of the trips using the interchange are internal, both beginning and ending within the combined city limits.

For year 2025 No Build conditions, daily traffic levels through the interchange are expected to increase to more than 160,000 vehicle trips per day, while under 2025 Financially Constrained conditions, interchange volumes would decrease to just under this amount. Under both future conditions, the percentage of internal and external trips are expected to be similar to existing conditions.

On a design hour basis, almost 8,500 vehicles travel through the interchange during the peak hour. By 2025, this is expected to increase to over 14,100 vph.

Currently, the heaviest traffic movements during the peak hour (not including through movements along I-5) are from northbound I-5 to westbound Beltline Highway and from eastbound Beltline Highway to southbound I-5. Over 1,000 vph make each of these movements.

Other specific and general movements with high traffic volumes during the peak hour include northbound I-5 to southbound Gateway (305 vph), eastbound Beltline Highway to northbound I-5 (370 vph), eastbound Beltline Highway to southbound South Game Farm Road (235 vph), eastbound Beltline Highway to southbound Gateway (450 vph), southbound North Game Farm Road to southbound South Game Farm Road (205 vph), and northbound Gateway to westbound Beltline Highway (300 vph). Existing origin and destination pattern information is included in Appendix C.

By 2025, under the No Build and the Financially Constrained System, each of the above key movements is expected to increase substantially. The northbound I-5 to westbound Beltline Highway and the eastbound Beltline Highway to southbound I-5 movements are expected to increase by 30 percent and 23 percent, respectively. The northbound I-5 to southbound Gateway movement is predicted to increase almost 80 percent to almost 550 vph. In addition, eastbound Beltline Highway to southbound Gateway movements is anticipated to increase almost 100 percent (to almost 900 vph).

Other substantial design hour traffic movements predicted for 2025 include: eastbound Beltline Highway to northbound I-5 (up about 60 percent to 590 vph), eastbound Beltline Highway to southbound South Game Farm Road (up over 30 percent to 310 vph), southbound North Game Farm Road to southbound South Game Farm Road (up 115 percent to 440 vph), and northbound Gateway to westbound Beltline Highway (up 37 percent to 410 vph).

Movements that currently experience low traffic volumes but will increase to substantial volumes include northbound South Game Farm Road to northbound North Game Farm Road (up 185 percent to 455 vph) and northbound Gateway to I-5 southbound (up over 85 percent to 270 vph). Year 2025 origin and destination pattern estimates are included in Appendix C.

6.3 Traffic Impacts

6.3.1 Transportation Facility Performance

A volume-to-capacity ratio is the peak hour traffic volume (measured in vph) on a facility divided by the maximum volume that the facility can handle. For example, when a highway segment's volume-to-capacity ratio equals 0.85, peak hour traffic uses 85 percent of a highway's capacity and 15 percent of the capacity is not used. If the traffic volume entering a highway section exceeds the section's capacity, i.e., the volume-to-capacity ratio exceeds 1.00, traffic queues will form and lengthen for as long as there is excessive demand. When a volume-to-capacity ratio is less than but close to 1.0 (e.g., 0.95), traffic flow becomes very unstable. Small disruptions can cause traffic flow to break down and long traffic queues to form. This is a particular concern for freeways, weaving areas, ramp junctions and signalized intersections, because the capacity of these facilities under stop-and-go traffic conditions is lower than the capacity when traffic is moving freely.

ODOT uses volume-to-capacity ratio standards to determine whether or not State facilities operate acceptably. According to the 1999 OHP, the volume-to-capacity standard for I-5 and its interchange components is 0.80. For Beltline Highway and its components, the volume-

to-capacity standard is 0.85. These standards are compared against the predicted operations of each future alternative to evaluate its performance.

The City of Springfield's level-of-service (LOS) "D" performance standard was equated to a volume-to-capacity standard of 0.85 for comparative purposes. The City of Springfield uses LOS standards rather than volume-to-capacity ratio standards. The LOS concept uses qualitative measures that characterize operational conditions within a traffic stream and the perceptions of motorists and passengers. The descriptions of individual LOS designations characterize these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Six levels-of-service are defined for each type of facility (e.g., freeway segments, weaving areas, ramp junctions, signalized and unsignalized intersections, etc.) for which analysis procedures are available. Although levels-of-service for uninterrupted and interrupted flow facilities vary widely in terms of both the user's perception of service quality and the operation variables used to describe them (see Appendix F), levels-of-service are given letter designations, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each LOS designation represents a range of operating conditions.

The volume of traffic that can be served under the stop-and-go conditions of LOS F is generally accepted as being lower than that possible at LOS E; consequently, service flow rate E is the value that corresponds to the maximum flow rate, or capacity, on a facility. For most design and planning purposes, however, service flow rates D is usually used because it ensures a more acceptable quality of service to facility users.

Table 6-3 summarizes the No Build and the Financially Constrained scenarios design hour volume-to-capacity ratios and levels-of-service. Figure 6-2 (which is a copy of Figure B-10 in Appendix B) illustrates the above volume-to-capacity and LOS results.

6.3.2 Freeway and Interchange Operations

As shown in Table 6-3, all study highway segments and interchange ramp junctions currently operate within acceptable volume-to-capacity standards except for the weaving segment of northbound I-5 between I-105 and Beltline. The weaving section's peak hour volume-to-capacity ratio is at 0.87 (while the standard volume-to-capacity ratio is 0.80), which results in congested conditions during the afternoon rush hour.

While all but one of the freeway and interchange components currently function within designated standards, the existing geometric deficiencies at the interchange impact current traffic operations:

- All of the weaving segments on I-5 and Beltline, between the exit and entrance ramps, are less than ideal for the safe movement of current traffic volumes due to their limited distances between successive ramps, which limits driver reaction time.
- The interchange's loop ramps in the northwest, southeast, and southwest quadrants were configured with noncircular curves, requiring motorists to constantly adjust steering. This affects vehicular speeds along the ramps and poses particular problems for truck traffic.

TABLE 6-3
No Build and Financially Constrained System Alternatives
Design Hour Volume-to-Capacity Ratios and LOS

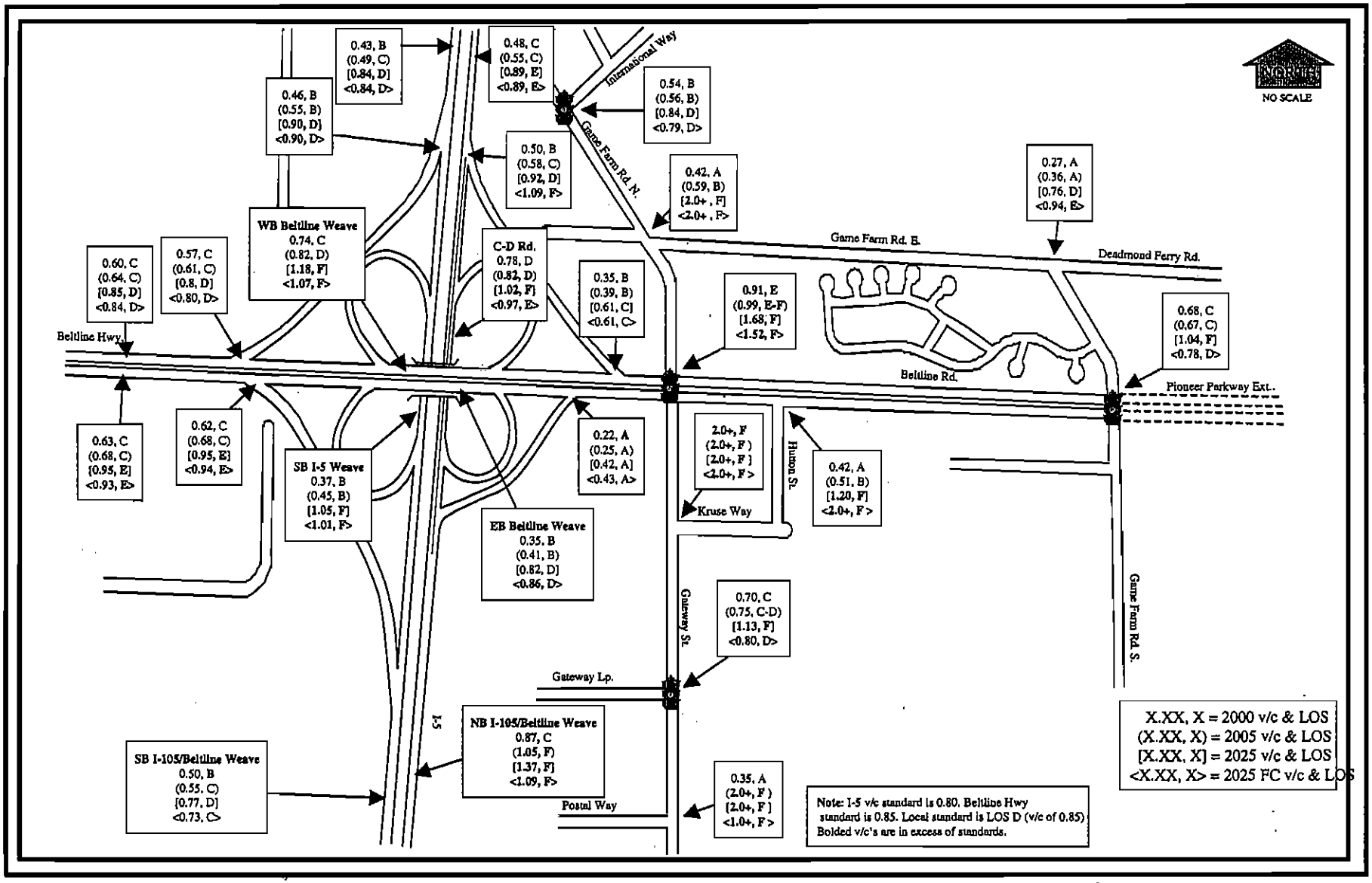
Location	Applied V/C or LOS Standard	No Build			Financially Constrained
		Year 2000	Year 2005	Year 2025	Year 2025
Highway Segments					
I-5 NB n/o Beltline	0.80	0.48 / C	0.55 / C	**0.89 / E**	**0.89 / E**
I-5 SB n/o Beltline	0.80	0.43 / B	0.49 / C	**0.84 / D**	**0.84 / D**
Beltline WB w/o I-5	0.85	0.60 / C	0.64 / C	**0.85 / D**	0.84 / D
Beltline EB w/o I-5	0.85	0.63 / C	0.68 / C	**0.95 / E**	**0.93 / E**
Weaving Areas					
I-5 NB @ Beltline	0.80	0.78 / D	0.82 / D	**1.02 / F**	**0.97 / E**
I-5 SB @ Beltline	0.80	**0.37 / B**	0.45 / B	**1.05 / F**	**1.01 / F**
I-5 NB s/o Beltline	0.80	**0.87 / C**	**1.05 / F**	**1.37 / F**	**1.09 / F**
I-5 SB s/o Beltline	0.80	0.50 / B	0.55 / C	0.77 / D	0.73 / C
Beltline WB @ I-5	0.85	0.74 / C	0.82 / D	**1.18 / F**	**1.07 / F**
Beltline EB @ I-5	0.85	0.35 / B	0.41 / B	0.82 / D	**0.86 / D**
Ramp Junctions					
NB-to-EB merge	0.85	0.22 / A	0.25 / A	0.42 / A	0.43 / A
SB-to-EB diverge	0.80	0.46 / B	0.55 / B	**0.90 / D**	**0.90 / D**
SB-to-EB merge	0.85	0.57 / C	0.61 / C	0.80 / D	0.80 / D
EB-to-SB diverge	0.85	0.62 / C	0.68 / C	**0.95 / E**	**0.94 / E**
WB-to-NB diverge	0.85	0.35 / B	0.39 / B	0.61 / C	0.61 / C
WB-to-NB merge	0.80	0.50 / B	0.58 / C	**0.92 / D**	**1.09 / F**
Intersections					
Gateway/Beltline	0.85 / D	**0.91 / E**	**0.99 / E-F**	**1.68 / F**	**1.52 / F**
Beltline/Hutton	0.85 / D	**2.0+ / F**	**2.0+ / F**	**2.0+ / F**	**2.0+ / F**
Beltline/GFRS	0.85 / D	0.68 / C	0.67 / C	**1.04 / F**	0.78 / D
Gateway/Kruse	0.85 / D	**2.0+ / F**	**2.0+ / F**	**2.0+ / F**	**2.0+ / F**
Gateway/Gwy Loop	0.85 / D	0.70 / C	0.75 / C-D	**1.13 / F**	0.80 / D
Gateway/Postal	0.85 / D	0.35 / A	**2.0+ / F**	**2.0+ / F**	**1.0+ / F**
GFRN/GFRE	0.85 / D	0.42 / A	0.59 / B	**2.0+ / F**	**2.0+ / F**
GFRN/International	0.85 / D	0.54 / B	0.56 / B	0.84 / D	0.79 / D
GFRS/GFRE	0.85 / D	0.27 / A	0.36 / A	0.76 / D	**0.94 / E**

Notes:

e/o = east of
n/o = north of
s/o = south of
w/o = west of

EB = eastbound
NB = northbound
SB = southbound
WB = westbound

Bolded figures exceed OHP volume-to-capacity standards.



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No Build & Financially Constrained, Years 2000, 2005 & 2025 Design Hour Volume to Capacity Ratios & Levels of Service

FILE : Beltline Int ~.ppt	Prepared By: Peter L. Schuytema
DATE : 2/27/01	Reviewed By: Brian G. Dunn, P.E.

Figure 6-2

Figure 6-2 is also Figure B-10 in Appendix B

- The distances between the interchange's northbound ramps and the signalized intersection at Gateway/Beltline are insufficient to allow drivers to make lane changes safely for all movements. The 625-foot spacing does not meet the 1,320-foot spacing standard for the first full intersection after an interchange according to OAR 734.

As traffic volumes increase over time, the above existing geometric deficiencies will worsen. In addition, as shown in Table 6-3, by 2025 almost all of the study highway segments and ramp junctions will exceed OHP volume-to-capacity standards.

Under the No Build alternative, by 2025 the volume-to-capacity ratio of southbound I-5 to the north of Beltline will worsen to 0.85 (LOS D), while northbound I-5 north of Beltline will worsen to a volume-to-capacity ratio of 0.89 (LOS E). Similar operations would be expected to prevail with the inclusion of the Pioneer Parkway Extension, i.e., the Financially Constrained System alternative.

South of Beltline, southbound I-5 is expected to continue operating acceptably. However, northbound I-5, which is considered a weaving area between I-105 and Beltline, is expected to worsen to a volume-to-capacity ratio of 1.37 (LOS F) by 2025. Over-capacity conditions are actually predicted to occur before 2005 for this segment. Northbound traffic backups would result along I-5. With the inclusion of the Pioneer Parkway Extension, lower traffic volumes would occur within this segment, however, it would still operate with a volume-to-capacity ratio of 1.07 (LOS F) by 2025.

By 2025 and under the No Build scenario, three of the interchange's four weaving areas between the loop ramps would operate at over-capacity (LOS F) conditions: I-5 northbound, I-5 southbound, and westbound Beltline, with volume-to-capacities of 1.02, 1.05 and 1.18, respectively. The over-capacity conditions would result in excessive congestion and vehicular backups would result along I-5 and Beltline. With the inclusion of the Pioneer Parkway, each of these three weaving areas would experience lower traffic volumes and therefore operate with improved conditions, but still at near or over-capacity conditions.

Three interchange ramp junctions are expected to degrade to unacceptable operating conditions by 2025. The southbound I-5 to eastbound Beltline diverge, the westbound Beltline to northbound I-5 merge, and the eastbound Beltline Highway to southbound I-5 diverge will degrade to volume-to-capacity ratios of 0.90, 0.92, and 0.95, respectively, or LOS D, D and E). These conditions will result in congestion at and beyond the ramp junctions.

With the provision of the Pioneer Parkway Extension, all but one of the existing ramp junctions would operate similarly to 2025 No Build conditions. Because the Pioneer Parkway Extension would slightly increase westbound Beltline to northbound I-5 traffic volumes as well as northbound I-5 traffic volumes south of the ramp junction, the freeway merge point would operate with a volume-to-capacity ratio of 1.09 (LOS F).

6.3.3 Local Roadway Operations

Three study area intersections currently operate below acceptable volume-to-capacity standards, as shown in Table 6-3 on page 6-12. The signalized Beltline/Gateway intersection operates with a volume-to-capacity ratio of 0.91 (LOS E). During the peak hour, traffic is often delayed and backs up along the intersection's approaches, particularly on Gateway's

northbound and southbound approaches to the intersection. The backed-up traffic often blocks access to and from driveways and roadways intersecting Gateway.

Two unsignalized intersections currently operate at over-capacity conditions (LOS F). Stop sign-controlled turn movements from Hutton onto Beltline are significantly delayed, as are stop sign-controlled turn movements from Kruse onto Gateway. Both stop sign-controlled movements operate with volume-to-capacity ratios of over 2.0.

By 2005, the Beltline/Gateway intersection is predicted to operate at just under capacity conditions, with a volume-to-capacity ratio of 0.99 (LOS E/F). In addition to the above two unsignalized intersections, a third unsignalized intersection in the study area is expected to operate at over-capacity conditions by 2005. Stop sign-controlled turn movements from Postal onto Gateway will be significantly delayed.

Under the No Build scenario, by 2025 all but two of the study area intersections are expected to operate unacceptably. Traffic demands at the signalized Beltline/Gateway intersection are expected to increase to almost 70 percent over the intersection's available capacity. Over-capacity conditions (with a volume-to-capacity ratio of 1.68 and LOS F) would result for multiple hours, motorists would encounter excessive delays, and traffic would back up substantially along all four of the intersection's approaches. These conditions would also impact the I-5/Beltline Interchange as backed-up traffic and long delays would impact movements along eastbound Beltline Highway, as well as several of the interchange's ramps. Traffic queued along I-5's off-ramps could extend to the freeway itself, resulting in potentially unsafe conditions.

In addition to the Gateway/Beltline intersection, the Beltline/Game Farm Road South and Gateway/Gateway Loop signalized intersections are expected to operate at over-capacity (LOS F) conditions by 2025, with volume-to-capacity ratios of 1.04 and 1.13, respectively. Under No Build conditions, four unsignalized intersections would operate unacceptably. Stop sign-controlled turn movements from Hutton onto Beltline, from Kruse onto Gateway, from Postal onto Gateway, and from Game Farm Road East onto Game Farm Road North would be significantly delayed—all with volume-to-capacity ratios of over 2.0.

The inclusion of the Pioneer Parkway Extension would re-route some travel patterns within the study area, increasing the volumes for some intersection turning movements and decreasing the volumes for others (compare Figures B-7 and B-8 in Appendix B). For example, with the Pioneer Parkway Extension the northbound left-turn and the eastbound right-turn volumes at the Beltline/Gateway intersection would decrease, while the eastbound and westbound through movements would increase. The net effect of the travel pattern changes would be slightly improved peak period operations. Under the Financially Constrained scenario, a volume-to-capacity ratio of 1.52 (LOS F) would result at the Beltline/Gateway intersection, but a volume-to-capacity ratio of 1.68 would result without the benefit of the Pioneer Parkway Extension.

With the Pioneer Parkway Extension, the signalized Beltline/Game Farm Road South and Gateway/Gateway Loop intersections would each improve from over-capacity (LOS F) conditions to volume-to-capacity ratios of 0.80 or less (LOS D). The Pioneer Parkway Extension would slightly relieve some of the unacceptably operating unsignalized intersections, however, the four stop sign-controlled turn movements that would operate at over-capacity

conditions under the 2025 No Build scenario would continue to do so under the Financially Constrained scenario.

6.3.4 Traffic Progression and Signal Needs

A computer program (SYNCHRO) was used to simulate year 2025 design hour traffic flows. The program's input variables consisted of traffic volumes, intersection lane configurations, intersection signal phasing and timing, the spacing between study area intersections, and the configuration of roadway segments connecting the intersections. Signal timing and coordination was optimized to reduce motorist delays and the length of vehicular queuing that would spillback from each intersection.

Vehicular queue lengths at signalized intersections were calculated considering a 95 percent confidence level, i.e., spillbacks that would only be exceeded 5 percent of the time during the design hour. At unsignalized intersections, queues were estimated using SimTraffic, a traffic simulation program associated with SYNCHRO. Figures B-11 and B-12 in Appendix B illustrate vehicle queuing results for the No Build and Financially Constrained scenarios, respectively.

Under both the year 2025 No Build and Financially Constrained scenarios, 95th percentile vehicle queues at the over-capacity Gateway/Beltline intersection would extend 500 feet or more to the west, affecting I-5's northbound off-ramp operations and impeding eastbound traffic flow along Beltline Highway. Under the No Build scenario, northbound spillbacks would extend about 1,100 feet to the south, inhibiting access to and egress from driveways along Gateway. In the Financially Constrained scenario, this queuing would be reduced to about 850 feet, or just south of Kruse. Under both scenarios, southbound spillbacks would extend to or beyond the Game Farm Road East intersection.

At the Gateway/Gateway Loop intersection, southbound queuing would be extensive under the No Build scenario. Vehicles would back up about 1,350 feet to the north, almost all of the way to the Beltline intersection. The queuing would block access to Kruse and many driveways along Gateway. Due to lower traffic volumes under the Financially Constrained scenario, the amount of southbound queuing at this location would be reduced to 300 feet.

The provision of the Pioneer Parkway Extension would change queuing patterns at the Beltline/Game Farm Road South intersection as well. Under the No Build scenario, 95th percentile vehicle queues would extend over 1,050 feet to the south and motorists traveling northbound would be faced with long delays. The Pioneer Parkway Extension would change the travel patterns of many motorists, reducing this queue to a length of about 175 feet, while introducing a new westbound queue extending about 400 feet to the east along the extension.

ODOT conducted a preliminary traffic signal warrant analysis for intersections that are currently unsignalized. The analysis was based on projected traffic levels and only considered a limited number of criteria. In order for a traffic signal to be installed, a comprehensive analysis needs to be conducted to warrant such installation. In addition, the State Traffic Engineer must approve all new signals on state highways and local officials must approve new signals on local facilities. The preliminary analysis was completed to estimate when a traffic signal may be justified at key locations.

The intersection of Game Farm Road North/Game Farm Road East will meet preliminary signal warrants in 2011 or 2012 with or without the Pioneer Parkway Extension. Preliminary signal warrants would not be met for the unsignalized intersections of Game Farm Road South/Game Farm Road East or for Gateway/Postal by 2025 under either the No Build or Financially Constrained scenarios.

Under the Financially Constrained scenario, the Beltline/Hutton intersection would meet preliminary signal warrants by 2007 due to the added traffic to Beltline. This intersection would not meet preliminary warrants by 2025 under the No Build scenario.

The Gateway/Kruse intersection would meet preliminary signal warrants near the year 2023 under the No Build scenario. In the Financially Constrained scenario, traffic levels are reduced along Gateway and this intersection would not meet preliminary warrants by 2025.

6.4 Impacts to Nonautomotive Modes

Under the No Build scenarios, no new pedestrian or bicycle facilities would be provided within the study area. Due to increased traffic levels in the future, pedestrian crossings could become more difficult and bicycle travel more challenging.

In the Financially Constrained scenario, the Pioneer Parkway Extension would be constructed. The extension would include sidewalks and bicycle lanes.

Due to increased congestion levels anticipated in the future, bus operations would be impacted, including LTD's routes 9, 10, 12, and 79. Buses traveling along each of these routes would be delayed substantially, particularly along Beltline and Gateway. Routes 18 and 19 would be less impacted since their travel along Gateway is limited to the segment between Gateway Mall and Harlow Road.

Bus travel would be impacted more under the 2025 No Build scenario than the 2025 Financially Constrained scenario since local intersections and roadway segments would be expected to perform better under the latter alternative.

6.5 Access Management and Circulation

For the No Build alternative, ODOT does not own the right-of-way along Beltline to the east of the Beltline/Gateway/Game Farm Road North intersection. Access management will be governed by the City of Springfield in the interchange management area. It is likely that ODOT would exercise existing authority granted through the Oregon Transportation Planning Rule (TPR) to hold congestion and related safety problems in check. This could include negotiating access management features as a condition for future site development and redevelopment approval as part of a land use action. Eventually, additional land use development would likely come to a standstill without safety improvements, and thus access management improvements, made to correct the interchange.

SECTION 7

Build Alternatives Evaluation

This section presents the results of an evaluation of daily and peak period traffic volumes for each of the three Build alternatives, transportation performance, and transportation impacts common to all alternatives as well as impacts specific to each alternative. Refer to Section 4 for a description of the alternatives.

7.1 Build Alternatives Travel Demand

Section 7.1 presents travel demand that would result under each of the three Build alternatives, including Alternatives 1, 2, and 3. Travel demand will be presented as projected daily traffic volumes and projected design hour traffic volumes. These volumes are the basis for analysis of traffic impacts.

7.1.1 Projected Daily Traffic Volumes

Each of the three build alternatives—Alternatives 1, 2, and 3—would experience similar daily traffic volumes throughout most of the study area as the Financially Constrained System (see Section 6). Figures B-14, B-20, and B-26 in Appendix B illustrate year 2025 daily traffic projections for Alternatives 1, 2, and 3 respectively, while Figure B-4 in Appendix B illustrates forecast traffic levels for the Financially Constrained System.

Compared to the Financially Constrained scenario, Alternative 1 would decrease year 2025 daily traffic levels on Gateway between Beltline and Kruse by 4,400 vpd. Traffic levels would rise on Beltline between Gateway and Hutton (by 10,200 vpd), on Hutton between Beltline and Kruse (by 19,000 vpd), and on Kruse between Hutton and Gateway (by 17,800 vpd).

Compared to the Financially Constrained System, Alternative 2 would decrease year 2025 daily traffic levels on Gateway between Beltline and Kruse by 5,200 vpd. Traffic levels would rise on Beltline east of Gateway (by 11,200 vpd), on the New Road between Beltline and Kruse (by 19,450 vpd compared to Hutton), and on Kruse east of Gateway (by 17,900 vpd).

Compared to the Financially Constrained System, Alternative 3, would increase daily traffic levels on Beltline between Gateway and Hutton would increase by 11,500 vpd for year 2025. Gateway, between Beltline and Kruse, would serve one-way southbound traffic volumes of about 21,300 each weekday, while one-way northbound Hutton would serve about 16,000 vehicles each day.

7.1.2 Projected Design Hour Traffic Volumes

Figures 7-1, 7-2, and 7-3 (which are copies of Figures B-16, B-22, B-28 in Appendix B) illustrate the 2025 design hour traffic forecasts for Alternative 1, 2, and 3 respectively. Figure B-7 in Appendix B shows the 2025 Financially Constrained System forecasts.

Compared to the Financially Constrained System, Alternative 1 would decrease year 2025 peak hour traffic levels on Gateway between Beltline and Kruse by almost 400 vph. Traffic levels would rise on Beltline between Gateway and Hutton (by almost 900 vph), on Hutton between Beltline and Kruse (by over 1,650 vph), and on Kruse between Hutton and Gateway (by about 1,550 vph).

Compared to the Financially Constrained System, Alternative 2 would decrease year 2025 peak hour traffic levels on Gateway between Beltline and Kruse by about 2,075 vph. Traffic levels would rise on Beltline east of Gateway (by almost 2,450 vph), on the New Road between Beltline and Kruse (by about 1,775 vph compared to Hutton), and on Kruse east of Gateway (by almost 1,450 vph).

Compared to the Financially Constrained System, Alternative 3 volumes on Beltline between Gateway and Hutton would increase by about 1,100 vph. Gateway, between Beltline and Kruse, would serve one-way southbound traffic volumes of about 1,850 vph during the weekday peak hour, while one-way northbound Hutton would serve over 1,600 vehicles during the peak hour.

7.2 Common Transportation Impacts to All Alternatives

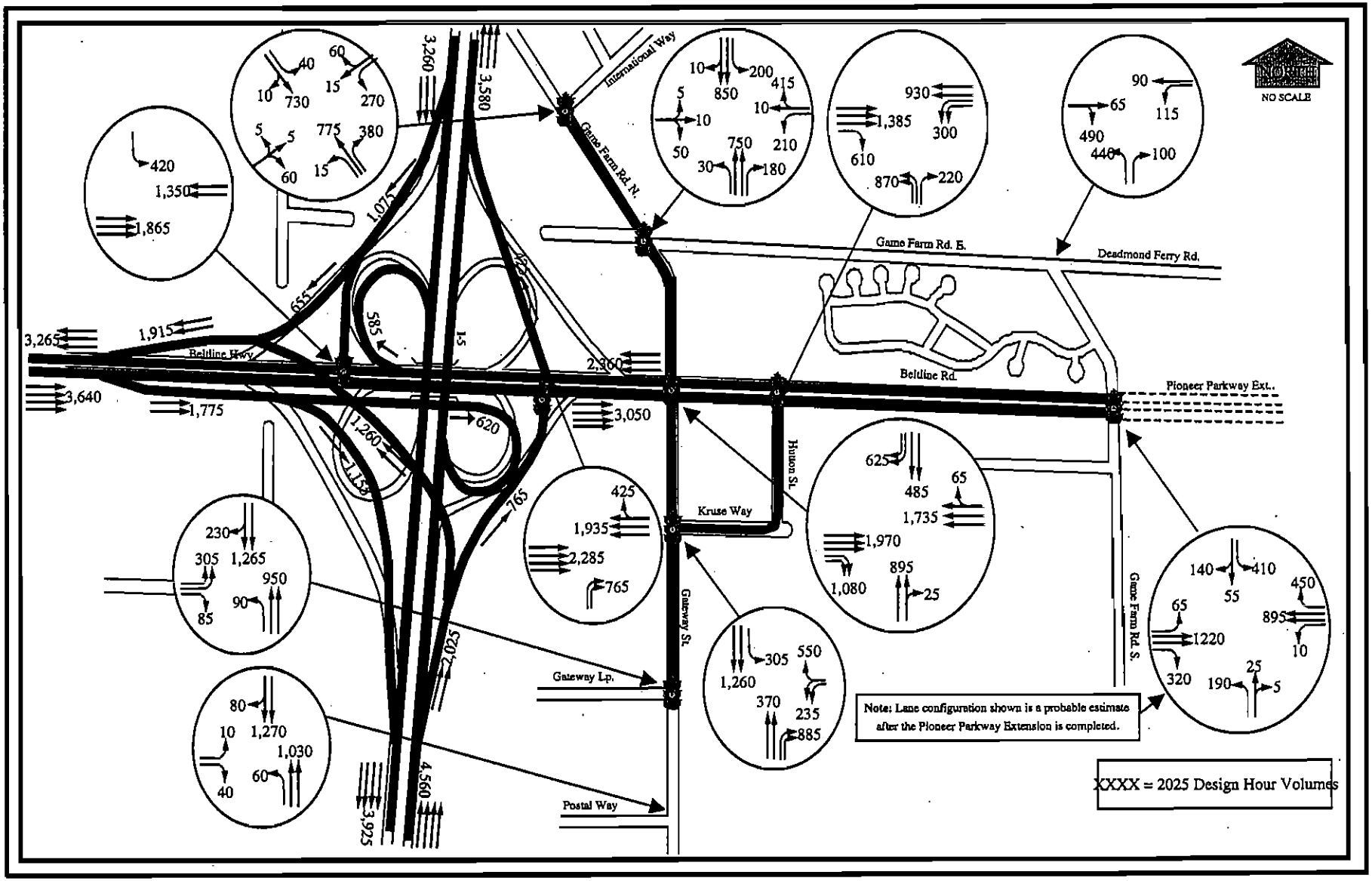
This section presents transportation related impacts that would be common to each of the three Build alternatives. The interchange configuration associated with Alternatives 1, 2, and 3 is identical. Therefore, design hour operations for the highway segment, weaving area and ramp junction components would be the same for each of the three alternatives. Figures 7-4, 7-5, and 7-6 (which are copies of Figures B-17, B-23, and B-29 in Appendix B) illustrate the 2025 design hour volume-to-capacity and LOS estimates for Alternatives 1, 2, and 3 respectively. Sections 7.2.1 and 7.2.2 present traffic operational impacts to all alternatives contained in these figures.

7.2.1 Freeway and Interchange Operations

Table 7-1 (on page 7-15) summarizes the Financially Constrained System and Alternatives 1, 2, and 3 year 2025 design hour volume-to-capacity ratios and levels-of-service for the applicable highway segments, weaving areas, and ramp junctions. See Figures B-10, B-17, B-23, and B-29 in Appendix B for illustrated information.

The alternative interchange configuration would substantially improve traffic operations in comparison to the Financially Constrained System. Under Alternatives 1, 2, and 3, two of the interchange's four loop ramps would be replaced with direct ramps, thereby eliminating the four short weaving areas that would operate unacceptably under the Financially Constrained System. The alternative interchange configuration would not have any weaving areas operating at unacceptable service levels. In addition, none of the ramp junctions would operate unacceptably under Alternatives 1, 2, and 3.

Similar to the 2025 Financially Constrained System, Alternatives 1, 2, and 3 would result in a volume-to-capacity ratio of 0.84 (LOS D) along southbound I-5 to the north of Beltline and a volume-to-capacity ratio of 0.89 (LOS E) along northbound I-5 to the north of Beltline.

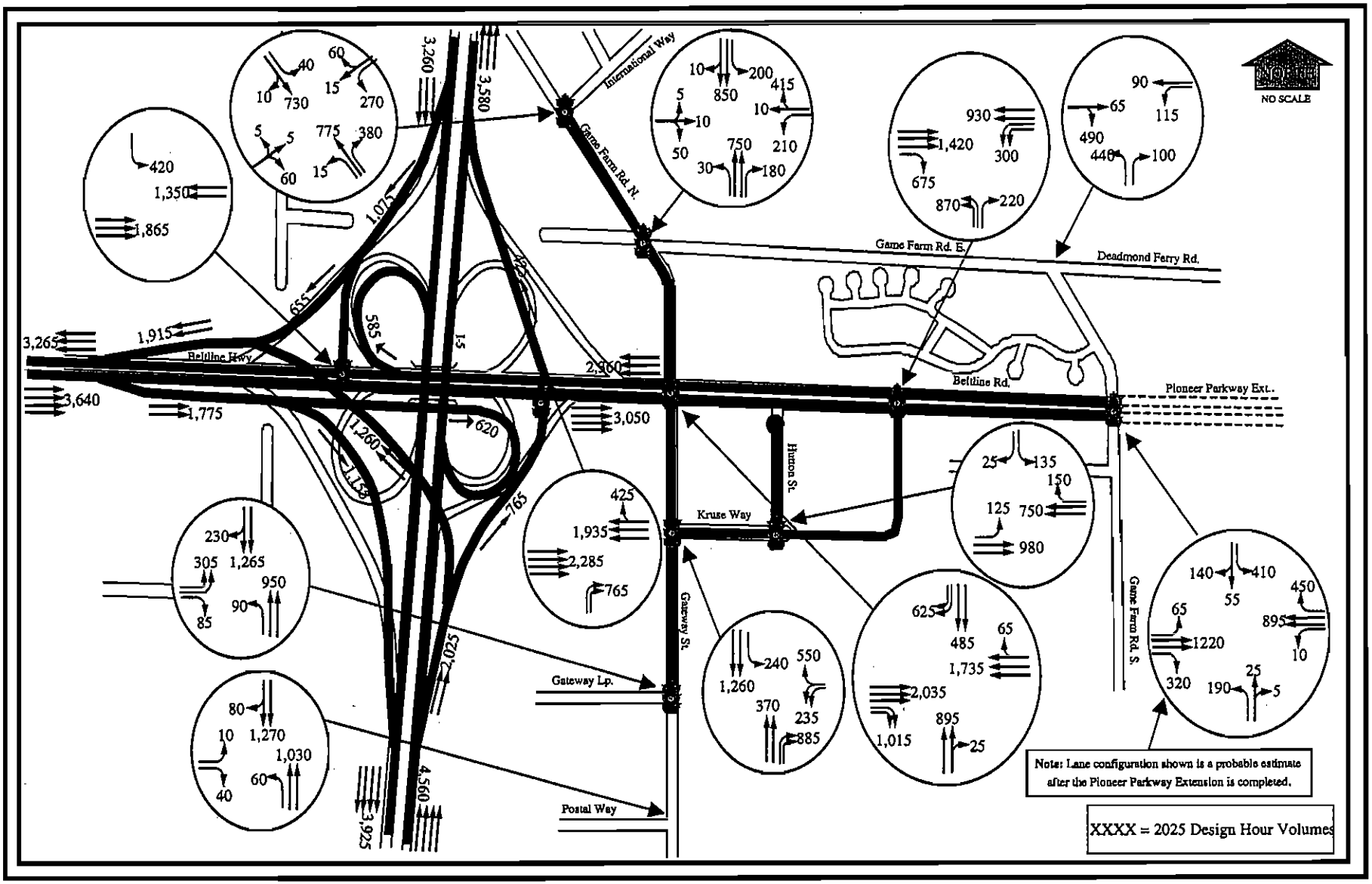


OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 1, Year 2025 **Design Hour Volumes & Lane Configurations**	FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema	**Figure 7-1**
	DATE : 1/04/01	Reviewed By: Brian G. Dunn, P.E.	

Figure 7-1 is also Figure B-16 in Appendix B

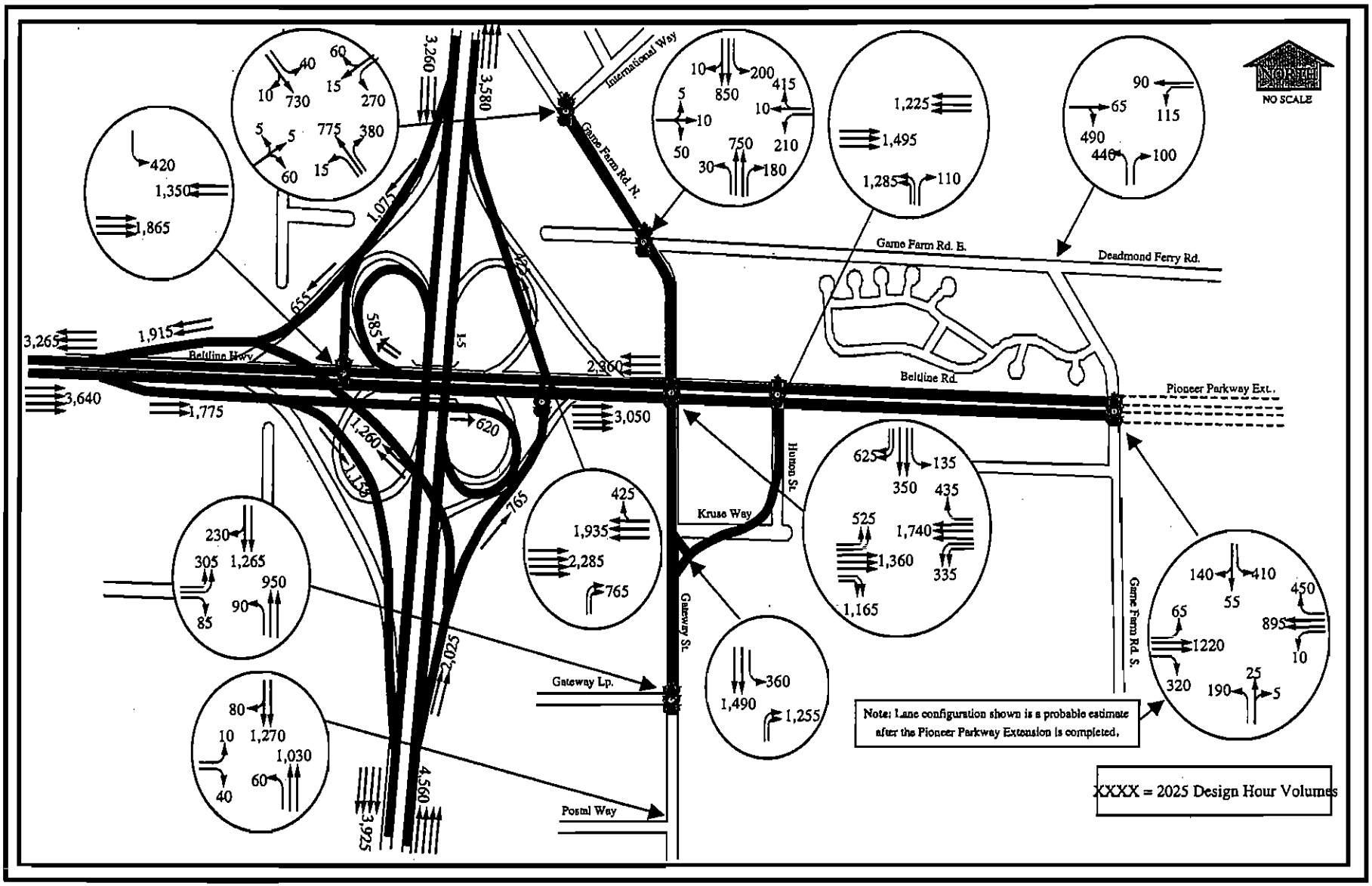


OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 2, Year 2025 Design Hour Volumes & Lane Configurations	FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema	**Figure 7-2**
	DATE : 1/04/01	Reviewed By: Brian G. Dunn, P.E.	

Figure 7-2 is also Figure B-22 in Appendix B

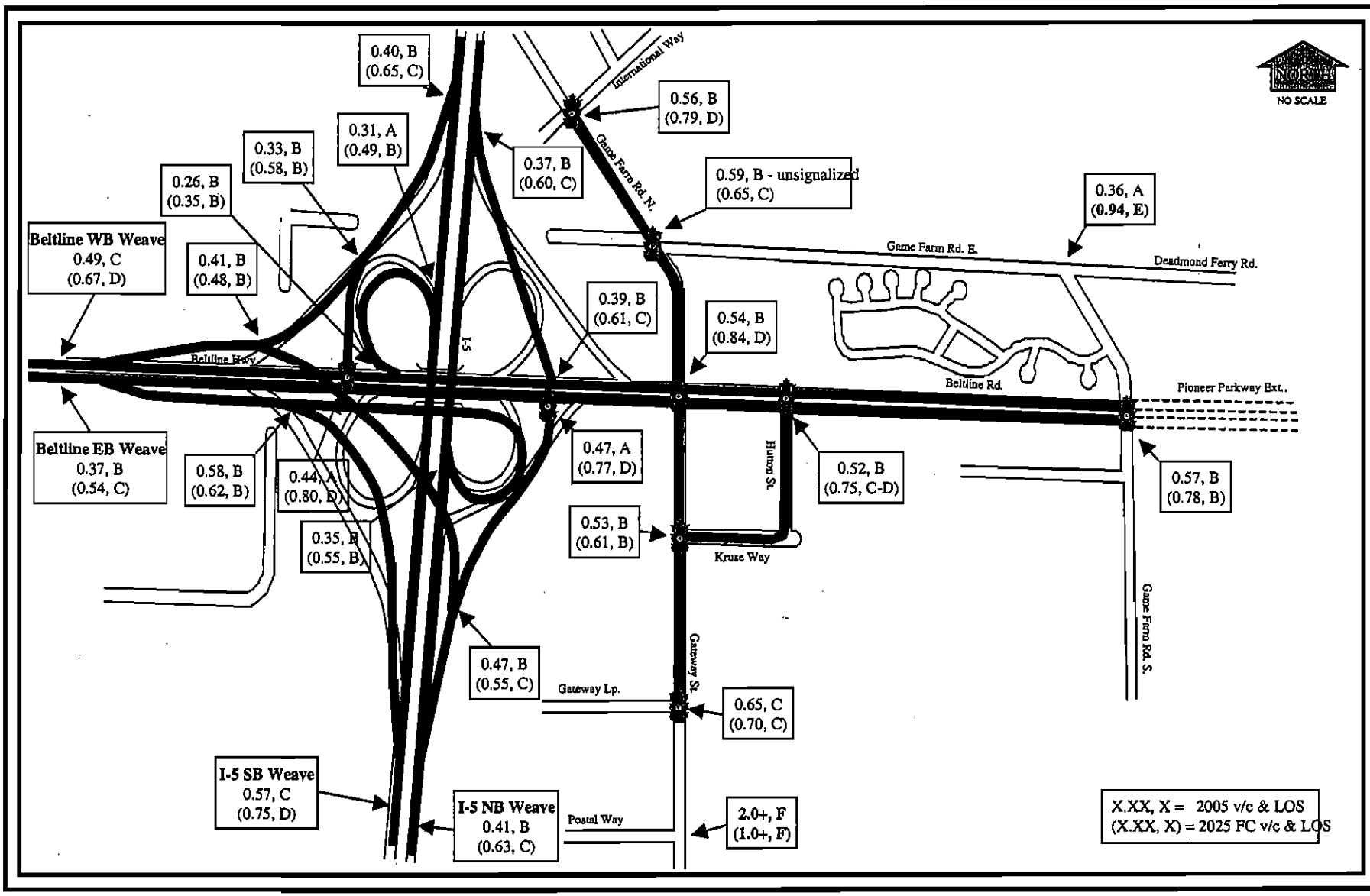


OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 3, Year 2025 **Design Hour Volumes & Lane Configurations**	FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema	**Figure 7-3**
	DATE : 2/07/01	Reviewed By: Brian G. Dunn, P.E.	

Figure 7-3 is also Figure B-28 in Appendix B



OREGON DEPARTMENT OF TRANSPORTATION

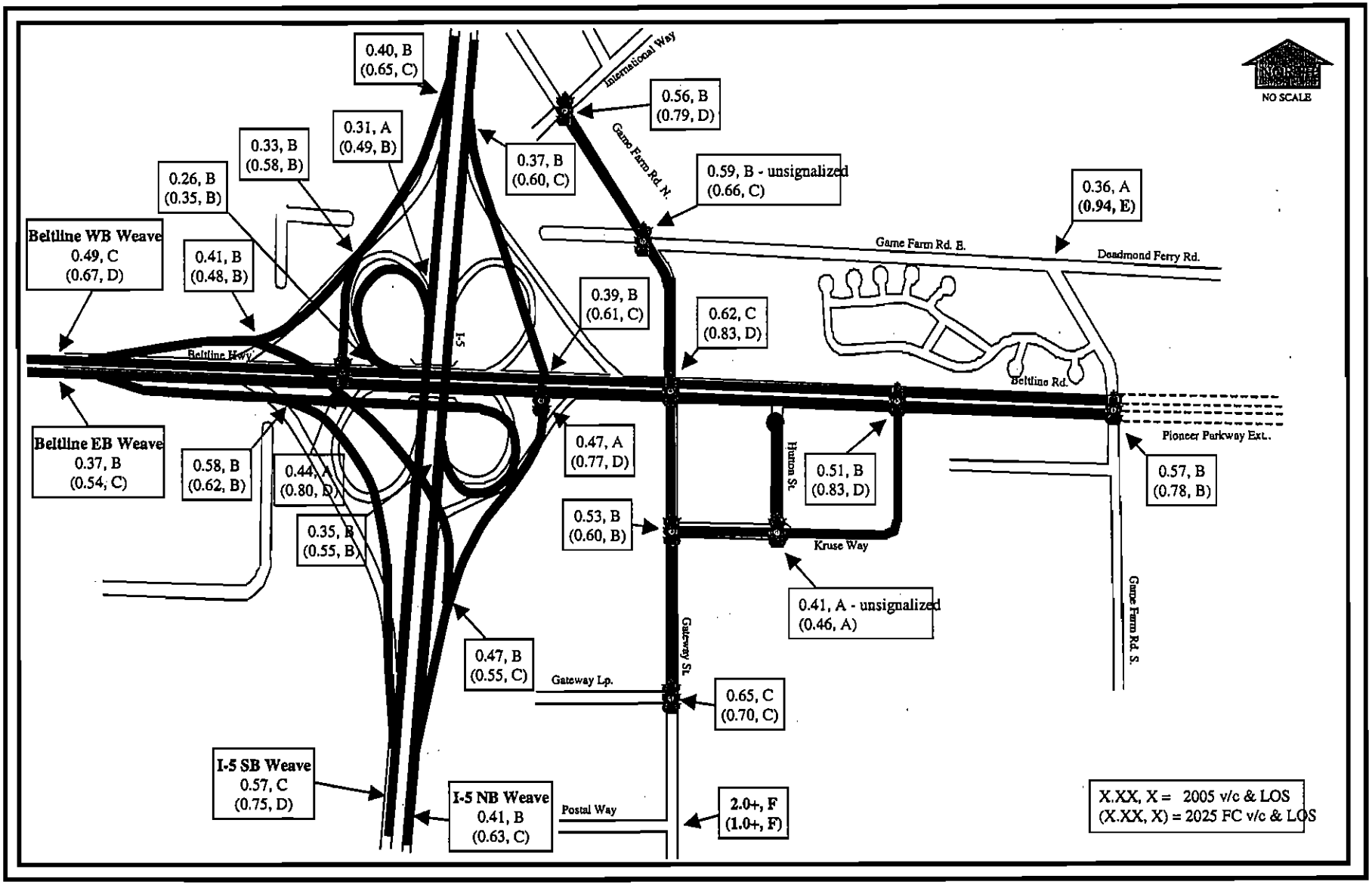
TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 1, Years 2005 & 2025
Design Hour Volume to Capacity Ratios & Levels of Service

FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema
DATE : 2/27/01	Reviewed By: Brian G. Dunn, P.E.

Figure 7-4

Figure 7-4 is also Figure B-17 in Appendix B



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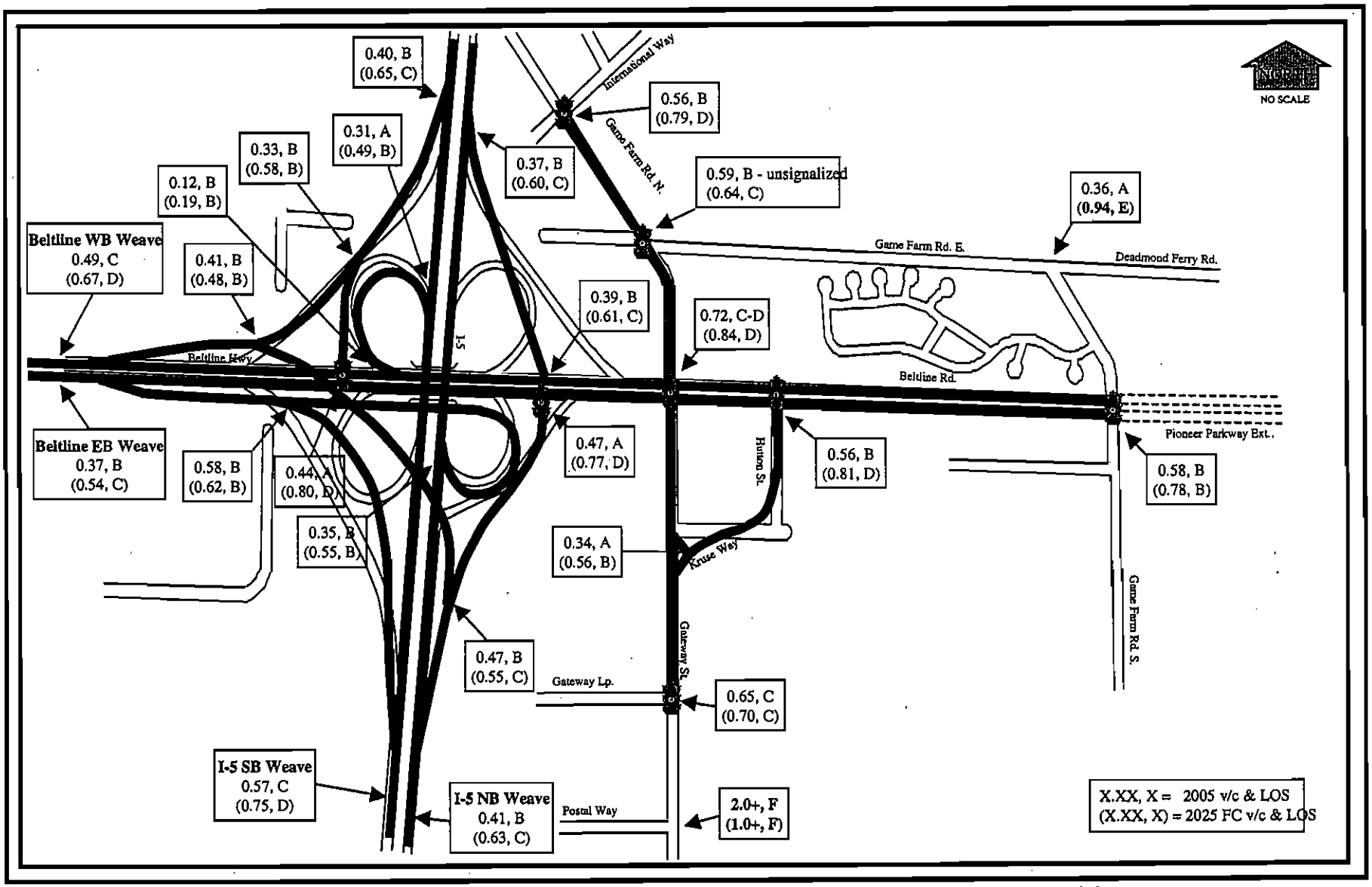
TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 2, Years 2005 & 2025
Design Hour Volume to Capacity Ratios & Levels of Service

FILE : Beltline Int ~.ppt | Prepared By: Peter L. Schuytema
DATE : 2/27/01 | Reviewed By: Brian G. Dunn, P.E.

Figure 7-5

Figure 7-5 is also Figure B-23 in Appendix B



OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 3, Years 2005 & 2025
Design Hour Volume to Capacity Ratios & Levels of Service

FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema
DATE : 2/27/01	Reviewed By: Brian G. Dunn, P.E.

Figure 7-6

Figure 7-6 is also Figure B-29 in Appendix B

TABLE 7-1
Year 2025 Conditions for Freeway and Interchange Ramps
Design Hour Volume-to-Capacity Ratios and LOS
Highway Segments, Weaving Areas, and Ramp Junctions

Location	Applied V/C or LOS Standard	Year 2025 Conditions	
		Financially Constrained	Alternatives 1, 2, and 3
Highway Segments			
I-5 NB n/o Beltline	0.80	**0.89 / E**	**0.89 / E**
I-5 SB n/o Beltline	0.80	**0.84 / D**	**0.84 / D**
Beltline WB w/o I-5	0.85	0.84 / D	n/a
Beltline EB w/o I-5	0.85	**0.93 / E**	n/a
Weaving Areas			
I-5 NB @ Beltline	0.80	**0.97 / E**	n/a
I-5 SB @ Beltline	0.80	**1.01 / F**	n/a
I-5 NB s/o Beltline	0.80	**1.09 / F**	0.63 / C
I-5 SB s/o Beltline	0.80	0.73 / C	0.75 / D
Beltline WB @ I-5	0.85	**1.07 / F**	n/a
Beltline EB @ I-5	0.85	**0.86 / D**	n/a
Beltline WB w/o I-5	0.85	n/a	0.67 / D
Beltline EB w/o I-5	0.85	n/a	0.54 / C
Ramp Junctions			
NB-to-EB merge	0.85	0.43 / A	n/a
SB-to-WB diverge	0.80	**0.90 / D**	0.65 / C
SB-to-WB merge	0.85	0.80 / D	n/a
EB-to-SB diverge	0.85	**0.94 / E**	n/a
WB-to-NB diverge	0.85	0.61 / C	0.61 / C
WB-to-NB merge	0.80	**1.09 / F**	0.60 / C
EB-to-NB merge	0.80	n/a	0.55 / B
WB-to-SB diverge	0.85	n/a	0.35 / B
WB-to-SB merge	0.80	n/a	0.49 / B
NB off-ramp diverge	0.80	n/a	0.55 / C
SB off-ramp diverge	0.80	n/a	0.58 / B
EB off-ramp diverge	0.85	n/a	0.62 / B
WB on-ramp merge	0.80	n/a	0.48 / B

Notes:

e/o = east of
n/o = north of
s/o = south of
w/o = west of

EB = eastbound
NB = northbound
SB = southbound
WB = westbound.

Bolded figures exceed OHP volume-to-capacity standards.

It should be noted that under each Build alternative, driver sight distance from the northbound ramp terminal to Gateway Street would be improved to 800 feet—better than the existing distance of 625 feet, but still less than OAR 734-051 standard of 1,320 feet. ODOT's Region Manager must approve a major deviation to this standard.

7.2.2 Local Roadway Operations

Table 7-2 summarizes the Financially Constrained System and Alternatives 1, 2, and 3 year 2025 design hour volume-to-capacity ratios and levels-of-service for the applicable signalized and unsignalized intersections. Figures B-10, B-17, B-23, and B-29 in Appendix B illustrate this information.

TABLE 7-2
Financially Constrained System and Intersection Build Alternatives 1, 2, and 3
Design Hour Volume-to-Capacity Ratios and LOS Intersections

Location	Applied V/C or LOS Standard	Financially Constrained	Year 2025 Conditions		
			Alternative 1	Alternative 2	Alternative 3
Intersections					
Beltline/I-5 SB off-ramp	0.80 / D	n/a	0.80 / D	0.80 / D	0.80 / D
Beltline/I-5 NB off-ramp	0.80 / D	n/a	0.77 / D	0.77 / D	0.77 / D
Gateway/Beltline	0.85 / D	**1.52 / F**	0.84 / D	0.83 / D	0.84 / D
Beltline/Hutton	0.85 / D	**2.0+ / F**	0.75 / C-D	n/a	0.81 / D
Beltline/Kruse	0.85 / D	n/a	n/a	0.83 / D	n/a
Beltline/GFRS/Pion. Pkwy.	0.85 / D	0.78 / D	0.78 / B	0.78 / B	0.78 / B
Gateway/Kruse	0.85 / D	**2.0+ / F**	0.61 / B	0.60 / B	0.56 / B
Kruse/Hutton	0.85 / D	n/a	n/a	0.46 / A	n/a
Gateway/Gateway Loop	0.85 / D	0.80 / D	0.70 / C	0.70 / C	0.70 / C
Gateway/Postal	0.85 / D	**1.0+ / F**	**1.0+ / F**	**1.0+ / F**	**1.0+ / F**
GFRN/GFRE	0.85 / D	**2.0+ / F**	0.65 / C	0.66 / C	0.64 / C
GFRN/International	0.85 / D	0.79 / D	0.79 / D	0.79 / D	0.79 / D
GFRS/GFRE	0.85 / D	**0.94 / E**	**0.94 / E**	**0.94 / E**	**0.94 / E**

Notes:

e/o = east of	EB = eastbound
n/o = north of	NB = northbound
s/o = south of	SB = southbound
w/o = west of	WB = westbound

Bolded figures exceed OHP volume-to-capacity standards.

Compared to the Financially Constrained System, all but two of the study area intersections would improve to acceptable operations. The two intersections that would not meet service level standards under any 2025 Build alternative are both outside of the improved project area. By 2025, the Game Farm Road South/Game Farm Road East intersection is anticipated to operate at LOS E (with a volume-to-capacity ratio of 0.94) due to increasing traffic associated with nearby industrial development. The stop sign-controlled turns from Postal onto Gateway are predicted to operate at LOS F (with a volume-to-capacity ratio over 1.0).

Due to excessive delays, many motorists who desire to make this movement would likely shift northerly to the signalized Gateway/Gateway Loop intersection.

The Gateway/Beltline intersection's traffic lanes would be configured differently and its signal phasing would operate differently under Alternatives 1, 2, and 3. Under each alternative; however, during the 2025 design hour the intersection would function with a volume-to-capacity ratio of 0.83 to 0.84 (LOS D). This would be a substantial improvement compared to both the No Build and Financially Constrained System, which each would result in multiple hours of congestion, excessive motorist delays, and traffic backups.

Each of the Build alternatives assumes that the Pioneer Parkway Extension would be operational in the year 2025. In fact, worsened service levels would result at many of the intersections listed in Table 7-2 prior to 2025 without the Pioneer Parkway Extension. It was determined that some intersections would actually perform below LOS standards if the extension were not constructed until 2010. In other words, development of the Pioneer Parkway Extension by 2010 would likely enable all study area intersections to operate acceptably from the year the interchange area improvements are constructed until at least 2025.

Due to the each alternative's physical roadway and routing changes in the Beltline, Gateway, Kruse, and Hutton loop area, design hour traffic performance would be different at some intersections depending upon the alternative.

For each Build alternative, a computer program (SYNCHRO) was used to estimate vehicle delays at each study intersection during the 2025 design hour. By multiplying each intersection's delay result by the number of vehicles using each intersection during the peak hour, the total number of vehicle-hours of delay was determined for each study intersection. Then, the total vehicle-hours of delay for all of the signalized intersections were totaled to determine the cumulative vehicular delay throughout the study area. The measure is reported in vehicle-hours of delay during the 2025 peak hour. The system-wide delay results for each Build alternative are discussed below.

- In study area, Alternative 1 would experience about 164 vehicle-hours of delay during the 2025 peak hour. Over 20 percent of the cumulative delay would be caused by motorist delays at the Beltline/Gateway intersection. About 22 percent of the study area delay would occur at the reconfigured Beltline/Hutton intersection.
- Alternative 2 would result in about 149 vehicle-hours of delay during the 2025 peak hour. About 21 percent of the cumulative delay would result due to motorist delays at the Beltline/Gateway intersection. The Beltline/Kruse (or new connection) intersection would contribute about 16 percent of the overall delays.
- Alternative 3 would result in about 153 vehicle-hours of delay in the study area during the 2025 peak hour. Since additional movements would route through the Beltline/ Gateway intersection, this intersection would be responsible for 29 percent of the overall system delay.

7.2.3 Traffic Progression and Signal Needs

The previous section focused on local intersection operations, i.e., volume-to-capacity and LOS impacts. This section addresses vehicular queuing impacts that would likely occur under the Build alternatives. This section also estimates the year that some of the unsignalized study intersections would potentially warrant installation of a traffic signal under each Build scenario.

The SYNCHRO computer program was used to simulate year 2025 design hour traffic flows for each alternative. The program's input variables consisted of intersection lane configurations, intersection signal phasing and timing, the spacing between study area intersections, and the configuration of roadway segments connecting the intersections. Signal timing and coordination was optimized to reduce motorist delays and the length of vehicular queuing that would spillback from each intersection.

Vehicular queue lengths at signalized intersections were calculated considering a 95 percent confidence level, i.e., spillbacks that would only be exceeded 5 percent of the time during the design hour. At unsignalized intersections, queues were estimated using the AASHTO "2-minute rule", i.e., the amount of minor street traffic that arrives during a 2-minute period within the peak hour. Figures B-18, B-24 and B-30 in Appendix B illustrate the vehicle queuing results for Alternatives 1, 2, and 3, respectively. Figure B-12 in Appendix B illustrates potential queuing under the Financially Constrained System.

As shown, the introduction of new traffic signals as a part of each alternative would result in new vehicular spillbacks from the intersections. For each of the three alternatives, vehicular queues would be similar at Beltline Highway's new intersections with the I-5 southbound off-ramp and the new I-5 northbound off-ramp.

Each of the Build alternatives would have similar queuing impacts at the Game Farm Road North/Game Farm Road East intersection. Vehicular backups would not extend through adjacent intersections. Each alternative would also have similar queuing patterns at the Beltline/Game Farm Road South intersection – comparable to those that would be experienced under the Financially Constrained scenario. No spillbacks would extend through adjacent intersections.

Each Build alternative would have different vehicle queuing impacts at the Beltline/Gateway, Gateway/Kruse, Beltline/Hutton-Beltline/New Road intersections.

For each Build alternative, ODOT conducted a preliminary traffic signal warrant analysis for intersections that are currently unsignalized and would not be signalized under the alternative's definition. The preliminary analysis was based on projected traffic levels and only considered a limited number of criteria. In order for a traffic signal to be installed, a comprehensive warrant analysis needs to be conducted. In addition, the State Traffic Engineer must approve all new signals on state highways and local officials must approve new signals on local facilities. The preliminary analysis was completed to estimate when a traffic signal may be justified at key locations.

The intersection of Game Farm Road North/Game Farm Road East will meet preliminary signal warrants in 2011 or 2012 under each of the Build alternatives. Preliminary signal

warrants would not be met for the unsignalized intersections of Game Farm Road South/ Game Farm Road East or for Gateway/Postal by 2025 under any of the build alternatives.

7.2.4 Impacts to Nonauto Modes

The interchange configuration proposed for each of the three Build alternatives would include an off-road multi-use trail west of and parallel to I-5. The trail would connect Game Farm Road West to the north and Harlow Road to the south. In addition, each Build alternative includes a proposed overcrossing of I-5 providing connectivity from Eugene to Springfield near Postal Way. These facilities would be 12 feet wide and with maximum vertical grades of 5 percent to comply with ADA standards.

The multi-use trail parallel with I-5 would connect with Willakenzie Street, providing connectivity in the local neighborhood to the west of I-5. Its routing through the reconfigured I-5/Beltline Interchange would take it under five ramps and Beltline Highway.

None of the Build alternatives would include bicycle lanes or sidewalks along Beltline Highway, to the west of Gateway.

As discussed previously, each of the three Build alternatives would provide acceptable traffic service levels at each of the study intersections. Bus operations would be subject to similar mobility volume to capacity, level of service, and delay impacts as experienced by other motorized vehicle traffic as discussed under Transportation Impacts.

Depending on the Build alternative, some of LTD's existing bus routes would need to be slightly modified in the loop area around Beltline, Gateway, Kruse, and Hutton.

7.2.5 Access Management and Circulation

Safety and operations within the I-5/Beltline Interchange area were considered along with the needs of individual businesses in determining appropriate access management treatments. Based on the results of the progression and queuing analysis and preliminary engineering, there are potential displacements to existing businesses. Based on final design and opportunities that may exist for cross property easements between property owners, it may be possible to allow an individual business to remain.

For each of the three Build alternatives, it was determined that the Union 76/Circle K, Arco AM/PM, and Shari's Restaurant would be displaced. With access, there would be a significant overlap of traffic backups with the potential right-in/right-out access location creating undesirable vehicular conflicts and long delays.

Under each Build scenario, the installation of raised medians, and elimination or consolidation of access would alter some local circulation patterns. There would be short-term travel pattern adjustments for local and regional area customers of the affected businesses. Travel advisory signage with gas, food, and lodging business logos will be provided to direct interstate travelers.

7.2.6 Construction Impacts

It is ODOT's policy to maintain reasonable access to businesses and residences during construction. Temporary delays in construction work zones would be limited to a specific

time period and contractors would be carefully monitored for compliance. Contract language would be included with the project construction's special provisions that bind the contractor to specific agreements reached with property owners during right-of-way negotiations.

7.3 Alternative 1 Transportation Impacts

This section presents transportation impacts specific to Alternative 1. Unique impacts to local system operations, traffic progression and signal needs, impacts to nonautomobile modes, as well as access management and circulation will be discussed.

7.3.1 Local System Operations

As previously noted, modifications to the Beltline/Gateway intersection's traffic lanes and signal phasing would operate differently under each Build alternative. In Alternative 1, the intersection would perform with a volume-to-capacity ratio of 0.84 (LOS D). This would be a substantial improvement compared to both the No Build and Financially Constrained System, which each would result in volume-to-capacity ratios greater than 1.50 (LOS F) and in multiple hours of congestion, excessive motorist delays, and traffic backups.

It should be noted that with the prohibition of left-turns at the Beltline/Gateway intersection under Alternative 1, drivers unfamiliar with the configuration and alternative routing pattern might inadvertently attempt illegal movements or cause temporary congestion as they determine their desired travel route.

The Beltline/Hutton intersection would be signalized under Alternative 1. It would operate with a 2025 design hour volume-to-capacity ratio of 0.75 (LOS C-D). The Gateway/Kruse and Game Farm Road North/Game Farm Road East intersections would be signalized under Alternative 1. Both intersections would operate at LOS C or better conditions.

7.3.2 Traffic Progression and Signal Needs

Under Alternative 1, peak hour traffic on the northbound off-ramp would be blocked almost one-third of the time due to the backups caused at the Beltline/Gateway intersection.

Compared to Alternatives 2 and 3, Alternative 1 would result in the longest spillbacks at the Beltline/Gateway intersection. Not only would eastbound traffic often back up through the northbound off-ramp intersection, but also southbound traffic would extend through the Game Farm Road East intersection (see Figure B-18 in Appendix B).

The Gateway/Kruse intersection would be signalized and would control southbound movements along Gateway. Under Alternative 1 and during the 2025 design hour, southbound vehicles would back up 375 to 450 feet to the north, almost all of the way to the Beltline intersection.

In Alternative 1, the Beltline/Hutton intersection would be signalized and the year 2025 design hour 95th percentile northbound queue would extend about 625 feet to the south, along both Hutton and Kruse. This queue could block driveway egress as well as movements from southbound Hutton where there is a proposed break in the raised median.

As noted previously, the intersection of Game Farm Road North/Game Farm Road East will meet preliminary signal warrants in 2011 or 2012 under Alternative 1. Preliminary signal warrants would not be met for the unsignalized intersections of Game Farm Road South/ Game Farm Road East or for Gateway/Postal by 2025 under Alternative 1 or any of the Build scenarios.

7.3.3 Impacts to Nonautomobile Modes

Under Alternative 1, the Gateway/Kruse and Beltline/Hutton intersections would be signalized and pedestrian crosswalks would be constructed. In addition, both Kruse and Hutton would be widened to provide 6-foot-wide bicycle lanes and sidewalks on both sides of the roadways.

7.3.4 Access Management and Circulation

Under Alternative 1, it would be necessary to close access to the Jack in the Box near the Beltline/Hutton intersection causing an additional displacement. The proximity of the access to the intersection would adversely affect traffic operations to an unacceptable level. Proposed improvements would greatly reduce the potential for future backups and congestion extending to and through the Beltline/Gateway and Beltline/I-5 Northbound off-ramp intersections. Over-capacity conditions at these intersections would spill further back onto I-5 itself, as well as several local roadways in the study area.

Circulation on local streets would be altered through the prohibition of left turn movements through the Gateway/Beltline intersection. In the eastbound directions, left turns would be accommodated through three successive right turning movements after traveling through the Gateway/Beltline intersection. There would be some out of direction travel. However, this arrangement would provide for more efficient traffic signal operations at the Gateway/Beltline intersection.

7.4 Alternative 2 Transportation Impacts

This section presents transportation impacts specific to Alternative 2. Unique impacts to local system operations, traffic progression and signal needs, impacts to nonautomobile modes, as well as access management and circulation will be discussed.

7.4.1 Local Roadway Operations

As previously noted, modifications to the Beltline/Gateway intersection's traffic lanes and signal phasing would operate differently under each Build alternative. For each alternative, however, during the 2025 design hour the intersection would function acceptably. In Alternative 2, the intersection would perform with a volume-to-capacity ratio of 0.83 (LOS D). This would be a substantial improvement compared to both the No Build and Financially Constrained System, which each would result in volume-to-capacity ratios greater than 1.50 (LOS F) and in multiple hours of congestion, excessive motorist delays, and traffic backups.

It should be noted that with the prohibition of left-turns at the Beltline/Gateway intersection under Alternative 2, drivers unfamiliar with the configuration and alternative routing

pattern might inadvertently attempt illegal movements or cause temporary congestion as they determine their desired travel route.

In Alternative 2, the Beltline/Hutton intersection would be closed to general traffic. However, the raised median on Beltline as well as the sidewalk closure of access to Beltline from Hutton would be constructed with a mountable curb allowing emergency service vehicle access to and from Hutton.

A new intersection would result to the east along Beltline. The Beltline/New Road intersection would operate with a volume-to-capacity ratio of 0.83 (LOSD) during the 2025 design hour.

The Gateway/Kruse and Game Farm Road North/Game Farm Road East intersections would be signalized under Alternative 2. Both intersections would operate at LOS C or better conditions.

7.4.2 Traffic Progression and Signal Needs

Under Alternative 2, year 2025 design hour vehicle queues extending from the Beltline/Gateway intersection would be contained between the intersection and each of its four adjacent signalized intersections (see Figure B-24 in Appendix B).

The Gateway/Kruse intersection would be signalized and would control southbound movements along Gateway. During the 2025 design hour, southbound vehicles would back up 375 to 450 feet to the north, almost all of the way to the Beltline intersection.

In Alternative 2, the Beltline/New Road intersection would be signalized. During the year 2025 design hour, the 95th percentile queue along the New Road would extend to the Kruse/Hutton intersection, but not beyond it.

As noted previously, the intersection of Game Farm Road North/Game Farm Road East will meet preliminary signal warrants in 2011 or 2012 under Alternative 2. Preliminary signal warrants would not be met for the unsignalized intersections of Game Farm Road South/Game Farm Road East or for Gateway/Postal by 2025 under Alternative 2 or any of the Build scenarios. Under Alternative 2, it is possible that the Kruse/Hutton intersection could meet preliminary signal installation warrants by the year 2020.

7.4.3 Impacts to Nonauto Modes

In Alternative 2, the Gateway/Kruse and Kruse/Hutton intersections would be signalized and equipped with pedestrian crosswalks. In addition, the new intersection of Beltline with the extended Kruse Way would be signalized and crosswalks would be provided. Both Kruse and its extension would be widened to provide 6-foot-wide bicycle lanes and sidewalks.

7.4.4 Access Management and Circulation

Other than previously mentioned displacements common to all alternatives, there would be no business displacements to properties resulting from the elimination of access under Alternative 2.

Circulation on local streets would be altered through the prohibition of left turn movements through the Gateway/Beltline intersection. In the eastbound directions, left turns would be accommodated through three successive right turning movements after traveling through the Gateway/Beltline intersection. There would be some out of direction travel. However, this arrangement would provide for more efficient traffic signal operations at the Gateway/Beltline intersection.

7.5 Alternative 3 Transportation Impacts

This section presents transportation impacts specific to Alternative 3. Unique impacts to local system operations, traffic progression and signal needs, impacts to nonautomobile modes, as well as access management and circulation will be discussed.

7.5.1 Local Roadway Operations

As previously noted, modifications to the Beltline/Gateway intersection's traffic lanes and signal phasing would operate differently under each Build alternative. For each alternative, however, during the 2025 design hour the intersection would function acceptably. In Alternative 3, the intersection would perform with a volume-to-capacity ratio of 0.84 (LOS D). This would be a substantial improvement compared to both the No Build and Financially Constrained System, which each would result in volume-to-capacity ratios greater than 1.50 (LOS F) and in multiple hours of congestion, excessive motorist delays, and traffic backups.

Unlike Alternatives 1 and 2, left turns would not be prohibited at the Beltline/Gateway intersection under Alternative 3. This arrangement would be consistent with driver expectations for new travelers to the area.

The Beltline/Hutton intersection would be signalized under Alternative 3. It would operate with a 2025 design hour volume-to-capacity ratio of 0.81 (LOS D). The Gateway/Kruse and Game Farm Road North/Game Farm Road East intersections would be signalized under Alternative 3. Both intersections would operate at LOS C or better conditions.

7.5.2 Traffic Progression and Signal Needs

Under Alternative 3, year 2025 design hour vehicle queues extending from the Beltline/Gateway intersection would be contained between the intersection and each of its four adjacent signalized intersections (see Figure B-30 in Appendix B).

In this alternative, the Gateway/Kruse intersection would allow southbound Gateway movements to bypass the traffic signal, eliminating southbound queuing except for left-turning vehicles.

In Alternative 3, the Beltline/Hutton intersection would be signalized and the year 2025 design hour 95th percentile northbound queue would extend about 925 feet to the south, but since Hutton would be one-way northbound, driveway movements would be improved (in comparison to Alternative 1).

As noted previously, the intersection of Game Farm Road North/Game Farm Road East will meet preliminary signal warrants in 2011 or 2012 under Alternative 3. Preliminary signal

warrants would not be met for the unsignalized intersections of Game Farm Road South/ Game Farm Road East or for Gateway/Postal by 2025 under Alternative 3 or any of the Build scenarios.

7.5.3 Impacts to Nonauto Modes

Alternative 3 would provide a new traffic signal and pedestrian crosswalks at the Beltline/ Hutton intersection. The Kruse/Hutton one-way street would have a northbound bicycle lane and sidewalks on both sides. The complimentary southbound bicycle lane would continue to be provided on Gateway. There would not be a signalized crossing of Gateway near Kruse Way.

In Alternative 3, LTD's Route 12 would be re-routed in the northbound direction from Gateway to the new Kruse/Hutton one-way street. Buses that serve the Sony plant would then need to turn left onto westbound Beltline and then right onto Gateway to resume their route. None of the bus re-routings would be considered to cause significant impacts.

7.5.4 Access Management and Circulation

Under Alternative 3, it would be necessary to close access to the Jack in the Box near the Beltline/Hutton intersection causing an additional displacement. The proximity of the access to the intersection would adversely affect traffic operations to an unacceptable level. Proposed improvements would greatly reduce the potential for future backups and congestion extending to and through the Beltline/Gateway and Beltline/I-5 Northbound off-ramp intersections. Over-capacity conditions at these intersections would spill further back onto I-5 itself, as well as several local roadways in the study area.

Local street circulation would be altered through the creation of a one-way couplet section to the south of Beltline east of I-5. Gateway would be changed from two way travel to southbound only to a point just to the south of existing Kruse. Kruse and Hutton would become the one-way north. With this configuration, it is possible to accommodate left turns for the eastbound Beltline traffic onto North Game Farm Road as well as maintain a more direct point of access to properties in the SE quadrant of the Gateway/Beltline intersection.

APPENDIX A

TransPlan's Financially Constrained Projects

Appendix A: – Financially Constrained 20-Year Capital Investment Actions: Roadway Projects

Name	Geographic Limits	Description	Jurisdiction
Project Category: New Arterial Link or Interchange			
Status: Programmed			
Beaver Street Arterial	Hunsaker Lane to Wilkes Drive	T.O.W. Acquisition. General Construction	Lane County
Division Avenue	Delta Highway to Beaver Street	New frontage road w/ Willamette River Bridge	Lane County
Jasper Road Extension	Main Street to Jasper Road	Construct 4-lane arterial; phasing to be determined; improve RR X-ing at Jasper Rd; at grade interim improvement; grade separation long-range improvement	Lane County
Terry Street	Royal Avenue to Roosevelt Boulevard	Construct new 2 to 3-lane urban facility	Eugene
West Eugene Parkway, (1A)	Seneca Road to Beltline Road	W 11th – Garfield: 4-lane new construction	ODOT
Status: Unprogrammed			
Beltline Highway	West 11th Avenue to Roosevelt Boulevard	Continue widening to 4 lanes; new RR Xing interchange at WEP, grade separation @ Roosevelt and turn lanes on West 11th Ave (ODOT: West 11th North City Limits Stage 3)	ODOT
Centennial Boulevard	28th Street to 35th Street	Construct 3-lane Urban facility	Springfield
Eugene-Springfield Highway (SR-126)	At Main Street	Construct interchange	ODOT

Appendix A: – Financially Constrained 20-Year Capital Investment Actions: Roadway Projects

Name	Geographic Limits	Description	Jurisdiction
Valley River Bridge	River Road South of Park Street to Goodpasture Island Road/Delta Highway	New major arterial with 4-lane bridge over Willamette River	Eugene

Appendix A: – Financially Constrained 20-Year Capital Investment Actions: Roadway Projects

Name	Geographic Limits	Description	Jurisdiction
Project Category:	***Added Freeway Lanes or Major Interchange Improvements***		
Status: Programmed			
Beltline Highway	Royal Avenue to Roosevelt Boulevard	Overcrossing at Royal, continue widening to 4 lanes south to railroad structure, construct Roosevelt extension from Beltline to Danebo, full at grade signal controlled intersection of Beltline and Roosevelt (ODOT: W. 11th N. city limits stage 2)	ODOT
Delta/Beltline Interchange		Interim/safety improvements; replace/revise existing ramps: widen Delta Highway bridge to 5 lanes	Lane County
Status: Unprogrammed			
Beltline Highway	@ I-5	Reconstruct interchange, upgrade Beltline Road East to 5 lane urban facility, upgrade Game Farm Road from I-5 to Crescent as 2 to 3-lane urban facility. I-5 bike bridge, Pioneer Parkway extension: Harlow to Beltline.	ODOT

Appendix A: -- Financially Constrained 20-Year Capital Investment Actions: Roadway Projects

Name	Geographic Limits	Description	Jurisdiction
I-105	Washington/Jefferson Street Bridge	Extend third SB lane over bridge to 6th Ave exit, add lane to 6th Ave off-ramp	ODOT
I-105	Washington/Jefferson Street Bridge	Add lane to NB on-ramp from 6th Ave, extend third NB lane over bridge to Delta Highway exit ramp	ODOT
I-5	30th Avenue/McVay Highway	Interchange reconstruction to improve operations and safety, reconstruct ramps and bridges to modern standards, and provide for 6 lanes on I-5	ODOT

Status: Unprogrammed

42nd Street	@ Marcola Road	Traffic control improvements	Springfield
6th/7th Intersection Improvement	Garfield Street to Washington/Jefferson Street	Provide improvements such as additional turn lanes and signal improvements; intersections include 6th/7th Avenues at: Garfield, Chambers, Washington/Jefferson Street Bridge	ODOT, Eugene
Beltline Highway	@ Coburg Road	Construct ramp and signal improvements	ODOT
Centennial Boulevard	Prescott Lane to Mill Street	Reconstruct section to 4-5 lanes	Springfield

Appendix A: – Financially Constrained 20-Year Capital Investment Actions: Roadway Projects

Name	Geographic Limits	Description	Jurisdiction
Project Category: Arterial Capacity Improvements			
Status: Programmed			
Beltline Highway	@ I-5	Safety improvements	ODOT
Bloomberg Connector	McVay Highway to 30th Avenue	Modification of connection of McVay Highway to 30th Avenue	Lane County, ODOT
Status: Unprogrammed			
42nd Street	@ Marcola Road	Traffic control improvements	Springfield
6th/7th Intersection Improvement	Garfield Street to Washington/Jefferson Street	Provide improvements such as additional turn lanes and signal improvements; intersections include 6th/7th Avenues at: Garfield, Chambers, Washington/Jefferson Street Bridge	ODOT, Eugene
Beltline Highway	@ Coburg Road	Construct ramp and signal improvements	ODOT
Centennial Boulevard	Prescott Lane to Mill Street	Reconstruct section to 4-5 lanes	Springfield
Centennial Boulevard	@ 21st Street	Traffic control improvements	Springfield
Centennial Boulevard	@ 28th Street	Traffic control improvements	Springfield
Eugene-Springfield Highway (SR-126)	@ Mohawk Boulevard Interchange	Add lanes on ramps	ODOT
Harlow Road	@ Pheasant Boulevard	Traffic control improvements	Springfield
Irving Road @ NW Expressway	Gansborough entrance to Prairie Road	Construct overpass over NW Expressway and railroad. Signalize access on north side.	Lane County

Appendix A: – Financially Constrained 20-Year Capital Investment Actions: Roadway Projects

Name	Geographic Limits	Description	Jurisdiction
Main Street	@ Mountaingate Drive	Traffic control improvements	Springfield
Main Street	@ 48th Street	Traffic control improvements	Springfield
Q Street	@ Pioneer Parkway	Traffic control improvements	Springfield
S 42nd Street	@ Daisy Street	Signal improvement	ODOT, Springfield
W. 11th Avenue	Green Hill Road to Danebo Avenue	Upgrade to 5-lane urban facility	ODOT, Eugene

Project Category: New Collectors

Status: Unprogrammed

19th Street	Yolanda Avenue to Hayden Bridge Road	Extend existing street as 2-lane collector	Springfield
30th Street	Main Street to Centennial Boulevard	New collector street	Springfield
36th Street	Yolanda Avenue to Marcola Road	Extend existing street as 2-lane collector per Local Street Plan	Springfield
54th Street	Main Street to Daisy Street	New 2-lane collector	Springfield
79th Street	Main Street to Thurston Road	New 2 to 3-lane collector	Springfield
Avalon Street	Greenhill Road to Terry Street	New major collector	Eugene
Cardinal Way	Game Farm Road to MDR north-south connector	Upgrade 2 to 3-land urban facility	Springfield
Daisy Street Extension	46th Street to 48th Street	New 2 to 3-lane urban facility, traffic control improvements	Springfield

Appendix A: – Financially Constrained 20-Year Capital Investment Actions: Roadway Projects

Name	Geographic Limits	Description	Jurisdiction
Future Collector A	Gilham to County Farm Road @ Locke Street	New neighborhood collector	Eugene
Future Collector C1	Linda Lane-Jasper Road Extension	New 2 to 3-lane urban collector	Springfield
Future Collector C2	Jasper Road – Mountaindale	New 2 to 3-lane urban collector	Springfield
Future Collector C3	Jasper Road Extension – East Natron	New 2 to 3-lane urban collector	Springfield
Future Collector C4	East-west in Mid-Natron site	New 2 to 3-lane urban collector	Springfield
Future Collector C5	Loop Rd. in South Natron site	New 2 to 3-lane urban collector	Springfield
Future Collector C6	Mt. Vernon Road – Jasper Road Extension	New 2 to 3-lane urban collector	Springfield
Future Collector C7	North-south in mid-Natron site	New 2 to 3-lane urban collector	Springfield
Future Collector E	Bailey Hill Road to Bertelsen Road	New major collector	Eugene
Future Collector F	Royal Avenue to Terry Street	New major collector	Eugene
Future Collector H	Future Collector G to Royal Avenue	New major collector	Eugene
Future Collector J	Awbrey Lane to Enid Road	New major collector	Eugene
Future Collector O	Barger Drive to Avalon Street	New neighborhood collector	Eugene
Future Collector P	Avalon Street to Future Collector F	New neighborhood collector	Eugene
Glacier Drive	55th Street to 48th Street	Develop new, 2-lane urban facility	Springfield
Glenwood Boulevard Extension	105 to Laurel Hill Drive	New collector	Eugene
Hyacinth Street	Irvington Drive to Lynnbrook Drive	New neighborhood collector	Eugene
Kinsrow Avenue	Centennial Boulevard to Garden Way	New neighborhood collector	Eugene
Lakeview/Parkview	Gilham Road to County Farm Road	New neighborhood collector	Eugene
Legacy Street	Barger Drive to Avalon Street	New major collector	Eugene
McKenzie-Gateway MDR Loop collector	Within MDR site	New 2 to 3-lane collector into MDR site	Springfield
MDR site	North-south within MDR site	Construct new 3-lane north-south collector	Springfield
Mountaingate Drive	Main Street to South 58th Street	New 3-lane collector	Springfield

Appendix A: – Financially Constrained 20-Year Capital Investment Actions: Roadway Projects

Name	Geographic Limits	Description	Jurisdiction
Mt. Vernon Road	Jasper Road Extension to Mountaingate Drive	Extend existing street as 2-lane collector	Springfield
V Street	31st Street to Marcola Road	New 2 to 3-lane collector	Springfield
Vera Drive/Hayden Bridge Road	15th Street to 20th Street	New 2 to 3-lane urban collector	Springfield
Yolanda Avenue	31st Street to 34th Street	Extend existing street as 2-lane collector	Springfield

Project Category: Urban Standards

Status: Programmed

18th Avenue	Bertelsen Road to Willow Creek Road	Upgrade to 2-lane urban facility	Eugene, Lane County
Ayres Road	Delta Highway to Gilham Road	Upgrade to 2 to 3-lane urban facility	Eugene
Bertelsen Road	18th Avenue to Bailey Hill Road	Upgrade to 2 to 3-lane urban facility	Eugene
Coburg Road	Kinney Loop to Armitage Park	Reconstruct to 3-lane urban facility to UGB, turn lane @ park entrance, rural shoulders	Lane County
Delta Highway	Ayres Road to Beltline Road	Upgrade to 3-lane urban facility	Eugene
Dillard Road	43rd Street to Garnet Street	Upgrade to 2-lane urban facility	Eugene
Fox Hollow Road	Donald Street to UGB	Upgrade to 2-lane urban facility	Eugene, lane County
Garden Way	Sisters View Avenue to Centennial Boulevard	Upgrade to 2 to 3-lane urban facility	Eugene
Goodpasture Island Road	Delta Highway to Happy Lane	Upgrade to 2-lane urban facility	Eugene
Greenhill Road	North Boundary of Airport to Airport Road	Closing of existing road and realignment of east boundary of airport property	Lane County, Eugene
Irvington Road	River Road to Prairie Road	Upgrade to 2 to 3-lane urban facility	Lane County

Appendix A: – Financially Constrained 20-Year Capital Investment Actions: Roadway Projects

Name	Geographic Limits	Description	Jurisdiction
Prairie Road	Carol Lane to Irvington Drive	Reconstruct to 3-lane urban facility	Lane County
Royal Avenue	Terry Street to Greenhill Road	Upgrade to 3-lane urban facility	Lane County, Eugene

Status: Unprogrammed

28th Street	Main Street to Centennial Boulevard	Widen/provide sidewalks and bike lanes; provide intersection and signal improvements at Main Street	Springfield
31st Street	Hayden Bridge Road to U Street	Upgrade to 2 to 3-lane urban facility	Lane County
35th Street	Commercial Avenue to Olympic Street	Upgrade to 3-lane urban facility	Springfield
42nd Street	Marcola Road to Railroad Tracks	Reconstruct to 3-lane urban facility	Springfield
48th Street	Main Street to G Street	Upgrade to 2-lane urban facility	Springfield
52nd Street	G Street to Eugene-Springfield Highway (SR 126)	Upgrade to 2-lane urban facility	Springfield
69th Street	Main Street to Thurston Road	Widen on east side of roadway	Springfield
Agate Street	30th Avenue to Black Oak Road	Upgrade to 2-lane urban facility	Eugene
Aspen Street	West D Street to Centennial Boulevard	Reconstruct to 2 to 3-lane urban facility	Lane County, Springfield
Baldy View Lane	Deadmond Ferry Road to the end of dedicated right-of-way	Upgrade to urban standards	Springfield
Bethel Drive	Roosevelt Boulevard to Highway 99	Upgrade to 2-lane urban facility	Eugene
Commercial Street	35th Street to 42nd Street	Upgrade to 3-lane urban facility	Springfield
County Farm Loop	West-to-East Section	Upgrade to 2-lane urban facility	Lane County, Eugene
County Farm Loop	North-to-South Section	Upgrade to 3-lane urban facility	Lane County, Eugene
Deadmond Ferry Road	Baldy View Lane to McKenzie River	Upgrade to urban standards	Springfield
Division Avenue	Division Place to River Avenue	Upgrade to 2 to 3-lane urban facility	Eugene

Appendix A: – Financially Constrained 20-Year Capital Investment Actions: Roadway Projects

Name	Geographic Limits	Description	Jurisdiction
Elmira Road	Bertelsen Road to Highway 99	Upgrade to 2-lane urban facility	Eugene
G Street	48th Street to 52nd Street	Upgrade to 2-lane urban facility	Springfield
Game Farm Road North	Coburg Road to Crescent Avenue	Upgrade to 2 to 3-lane urban facility	Lane County
Game Farm Road South	Beltline Road to Harlow Road	Upgrade to 2-lane urban facility	Lane County, Springfield
Gilham Road	Northernmost New Collector to Ayres Road	Upgrade to 2-lane urban facility	Eugene
Greenhill Road	Barger Drive to Airport Road	Rural widening and intersection modifications	Lane County
Greenhill Road	Barger Drive to West 11th Avenue	Upgrade to 2 to 3-lane urban facility	Lane County, Eugene
Hayden Bridge Road	Yolanda Avenue to Marcola Road	Reconstruct to 2-lane urban facility	Lane County
Hunsaker Lane / Beaver Street	Division Avenue to River Road	Upgrade to 2-lane urban facility	Lane County
Jasper Road	@. 42nd Street to Jasper Road Extension	Upgrade to 2 to 3-lane urban facility; intersection improvement at 42nd Street and Jasper Road	ODOT
Jeppenen Acres Road	Gilham Road to Providence Street	Upgrade to 2-lane urban facility	Eugene
Laura Street	Scotts Glen Drive to Harlow Road	Widen to 3-lane urban facility	Springfield
Maple Street	Roosevelt Boulevard to Elmira Road	Upgrade to 2-lane urban facility	Eugene
Old Coburg Road	Game Farm Road to Chad Drive	Upgrade to3-lane urban facility	Eugene
River Avenue	River Road to Division Avenue	Upgrade to 2 to 3-lane urban facility	Eugene
River Road	Carthage Avenue to Beacon Drive	Widen to 3-lane urban facility	Lane County
S. 28th Street	Main Street to Millrace	Upgrade to 3-lane urban facility	Springfield
S. 32nd Street	Main Street to Railroad	Upgrade to 3-lane urban facility	Springfield
S. 42nd Street	Main Street to Jasper Road	Reconstruct to 2 to 3-lane urban facility; curbs, sidewalks and bike lanes	ODOT
Stewart Road	Bertelsen Road to Bailey Hill	Upgrade to 2-lane urban facility	Eugene
Thurston Road	72nd Street to UGB	Upgrade to 3-lane urban facility	Springfield

Appendix A: – Financially Constrained 20-Year Capital Investment Actions: Roadway Projects

Name	Geographic Limits	Description	Jurisdiction
Van Duyn Road	Western Drive to Harlow Road	Reconstruct to 2-lane urban facility	Eugene
Wilkes Drive	River Road to River Loop 1	Upgrade to 3-lane urban facility	Lane County
Willow Creek Road	18th Avenue to UGB	Upgrade to 2-lane urban facility	Eugene

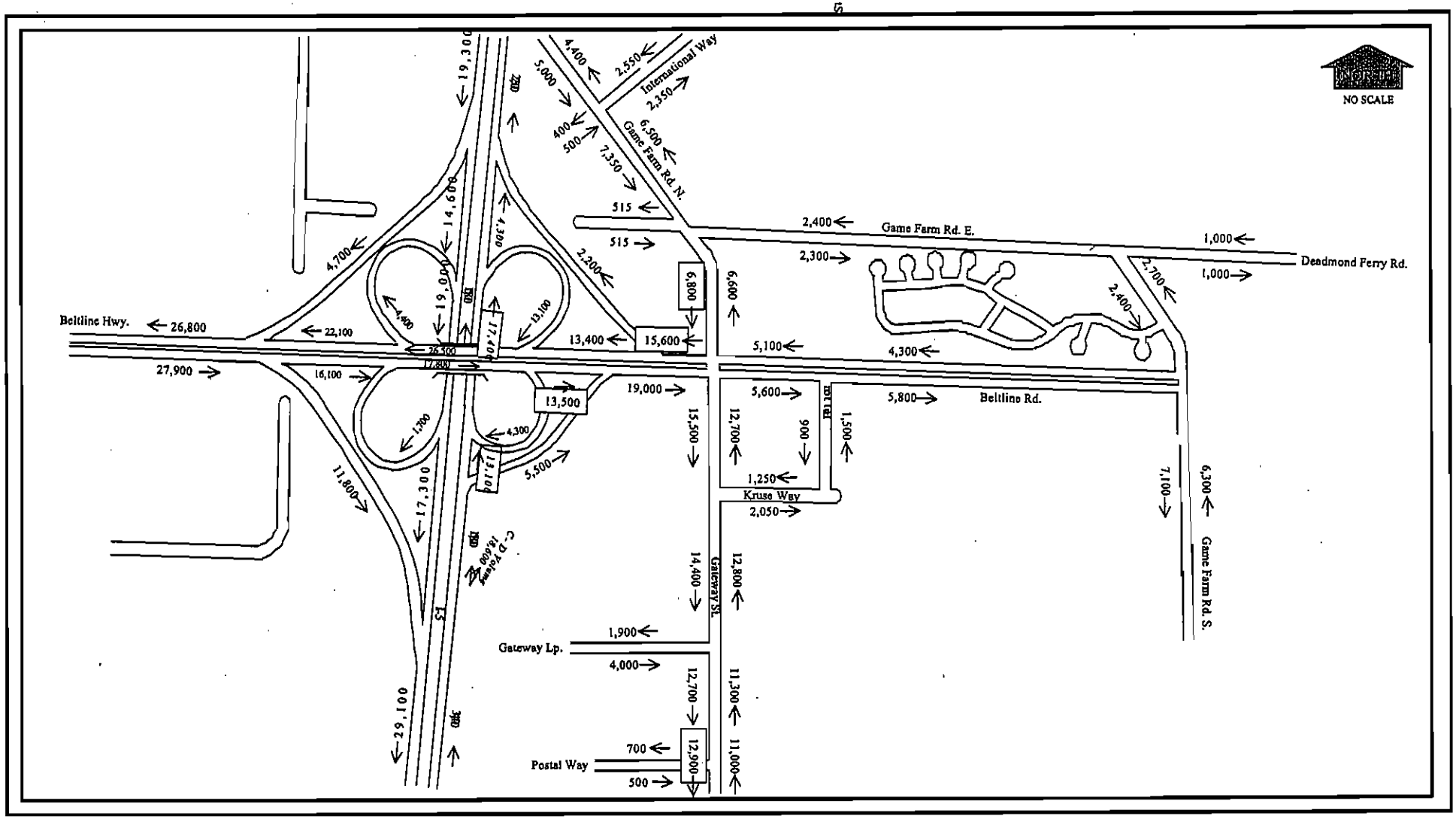
Project Category: Study

Status: Unprogrammed

18th Avenue	Bertelsen Road to Agate Street	Corridor study to determine improvements	Eugene
Chambers Street	8th Avenue to 18th Avenue	Corridor Study to determine improvements	Eugene
Coburg Road	Crescent venue to Oakway Road	Access management/safety-operational study	Eugene
Ferry Street Bridge	Oakway Road to Broadway	Long-Range Capacity Refinement Plan	Eugene
South Bank Street Improvements	Mill Street to Hillyard Street	Develop refinement plan for street system	Eugene, ODOT
W 11th Avenue	Beltline Road to Chambers Street	Access Management, Safety and Operational Study	Eugene
Willamette Street/Amazon Parkway/Patterson Street/Hillyard Street	13th Avenue to 33rd Avenue	Corridor study to determine improvements	Eugene

APPENDIX B

Traffic Volume Forecasts



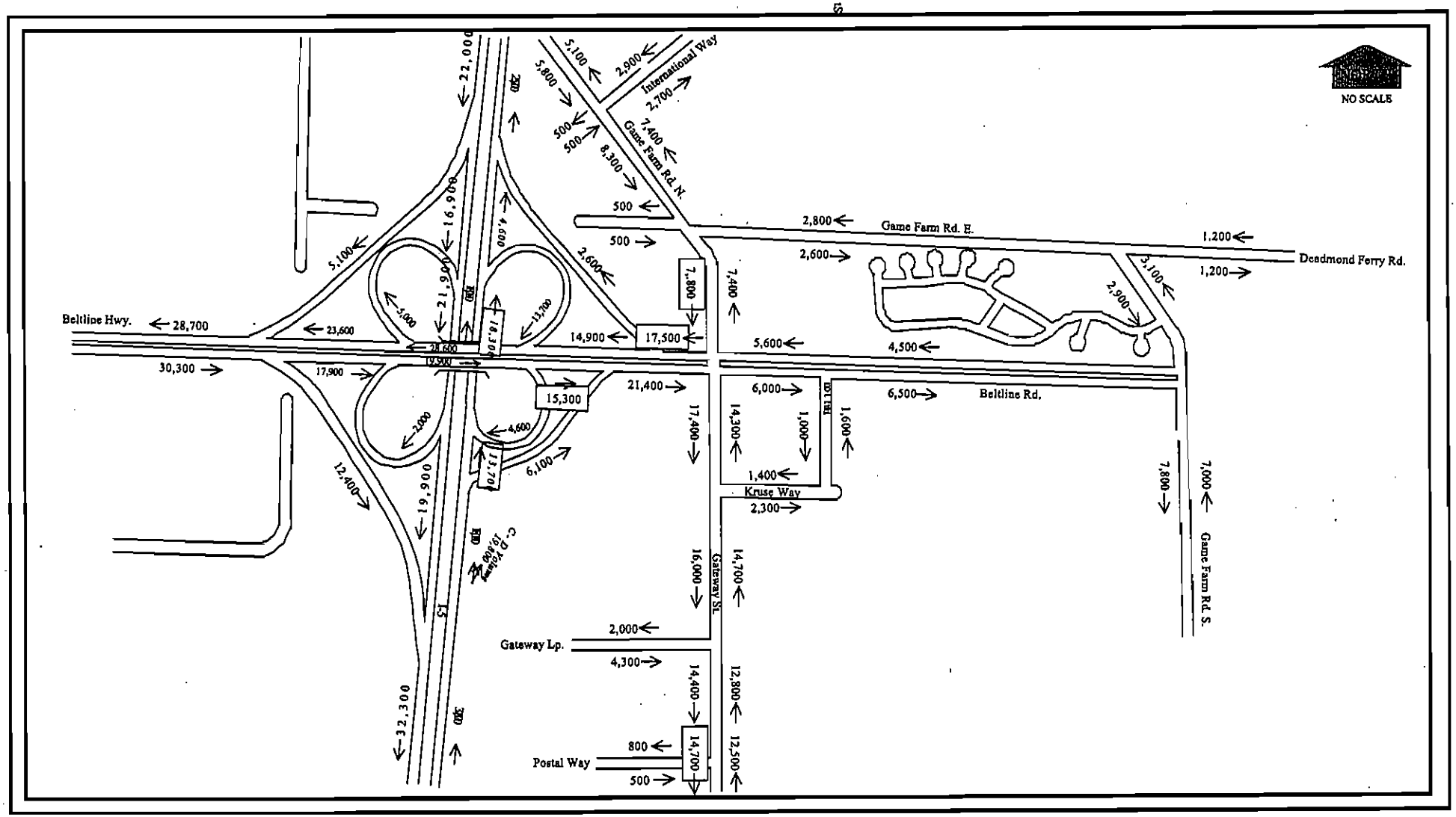
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

No Build, Year 2000
Average Daily Traffic Volumes

FILE : Beltline Int ~.ppt	Prepared By: Peter L. Schuytema
DATE : 04/10/00	Reviewed By: Brian G. Dunn, P.E.

Figure B-1



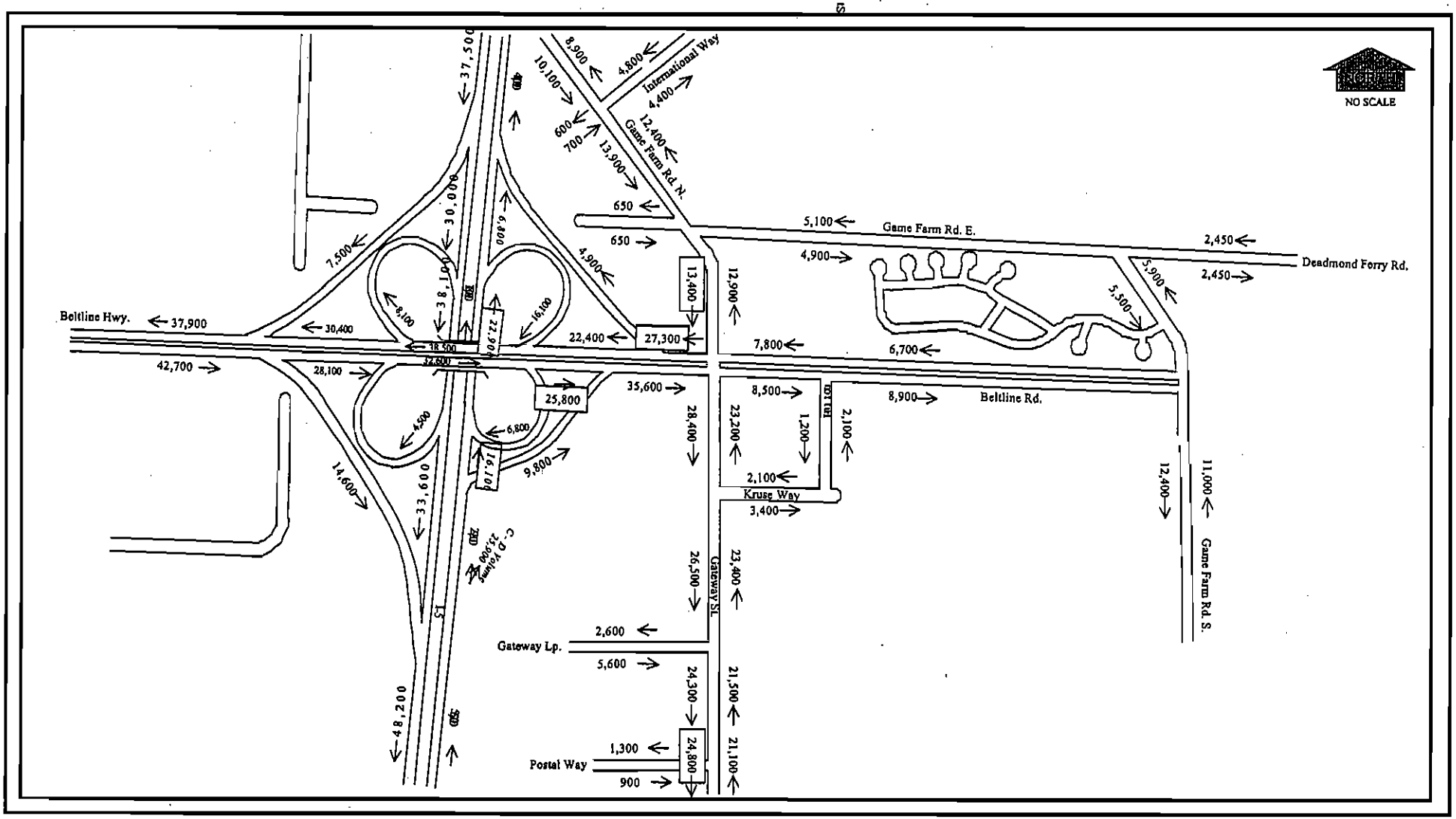
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

No Build, Year 2005
Average Daily Traffic Volumes

FILE : Beltline Int ~.ppt	Prepared By: Peter L. Schuytema
DATE : 04/10/00	Reviewed By: Brian G. Dunn, P.E.

Figure B-2



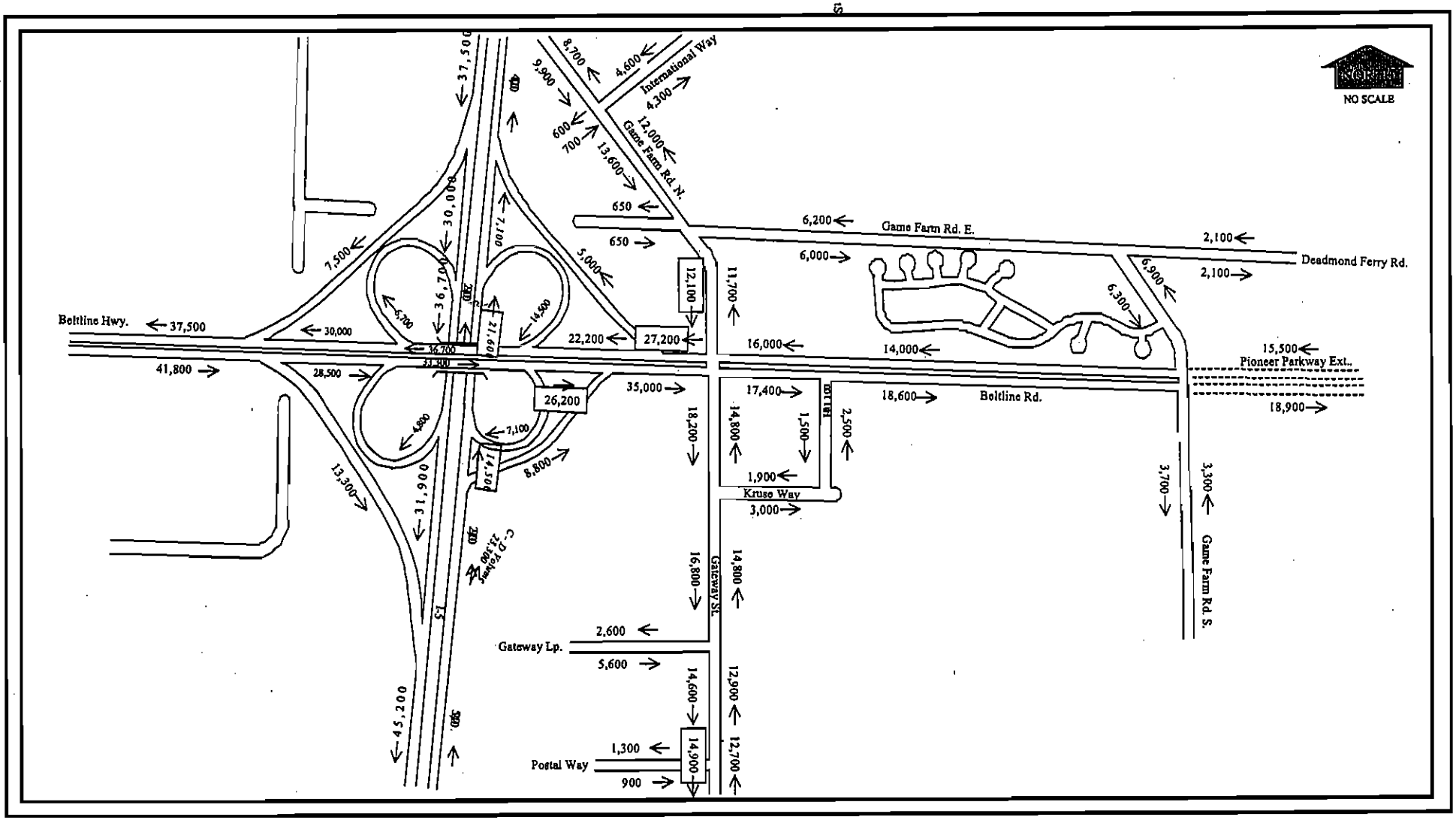
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

No Build, Year 2025
Average Daily Traffic Volumes

FILE : Beltline Int ~.ppt	Prepared By: Peter L. Schuytema
DATE : 04/10/00	Reviewed By: Brian G. Dunn, P.E.

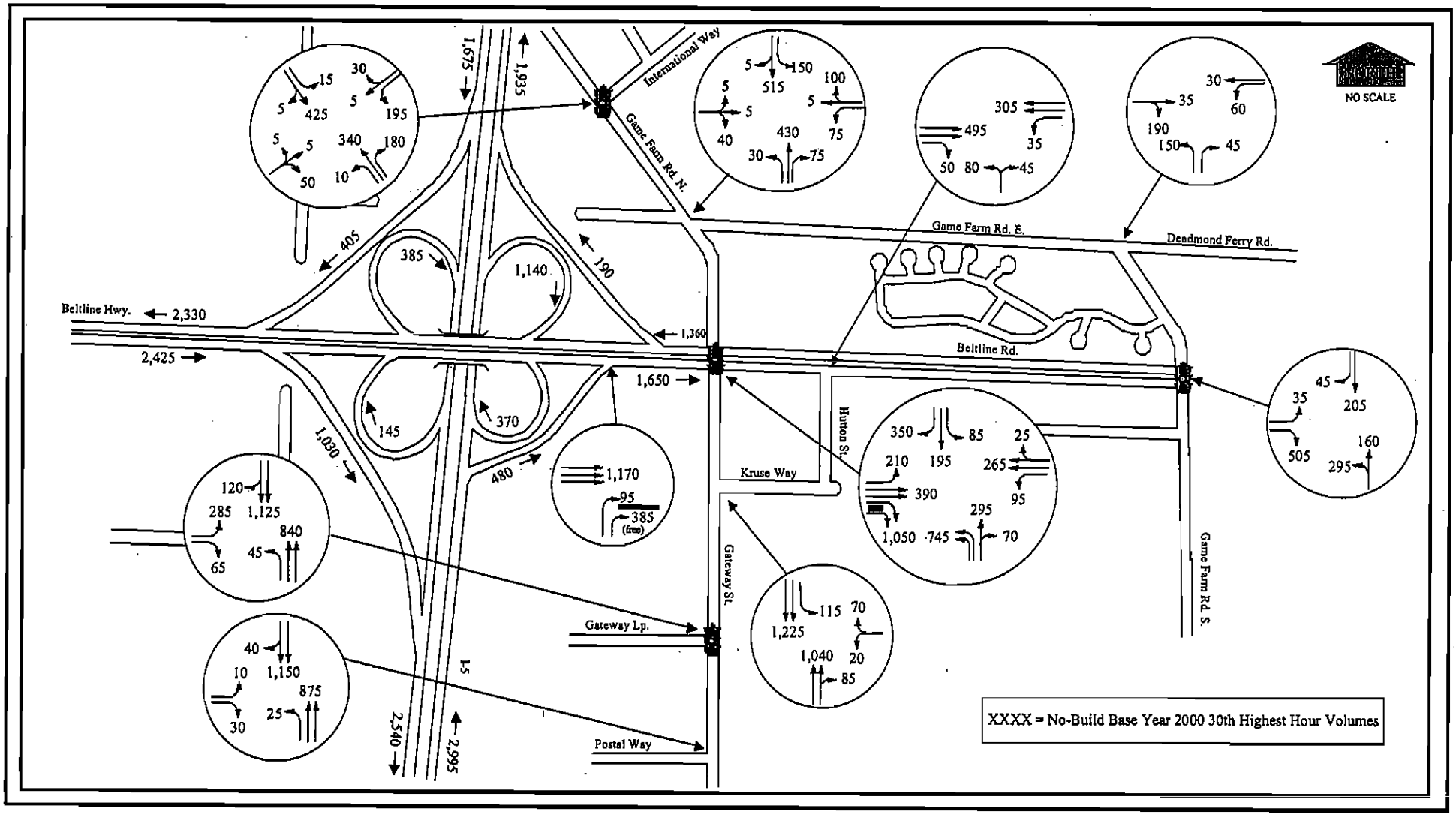
Figure B-3



OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Financially Constrained, Year 2025 **Average Daily Traffic Volumes**	FILE : Beltline Int ~.ppt	Prepared By: Peter L. Schuytema	**Figure B-4**
	DATE : 04/10/00	Reviewed By: Brian G. Dunn, P.E.	



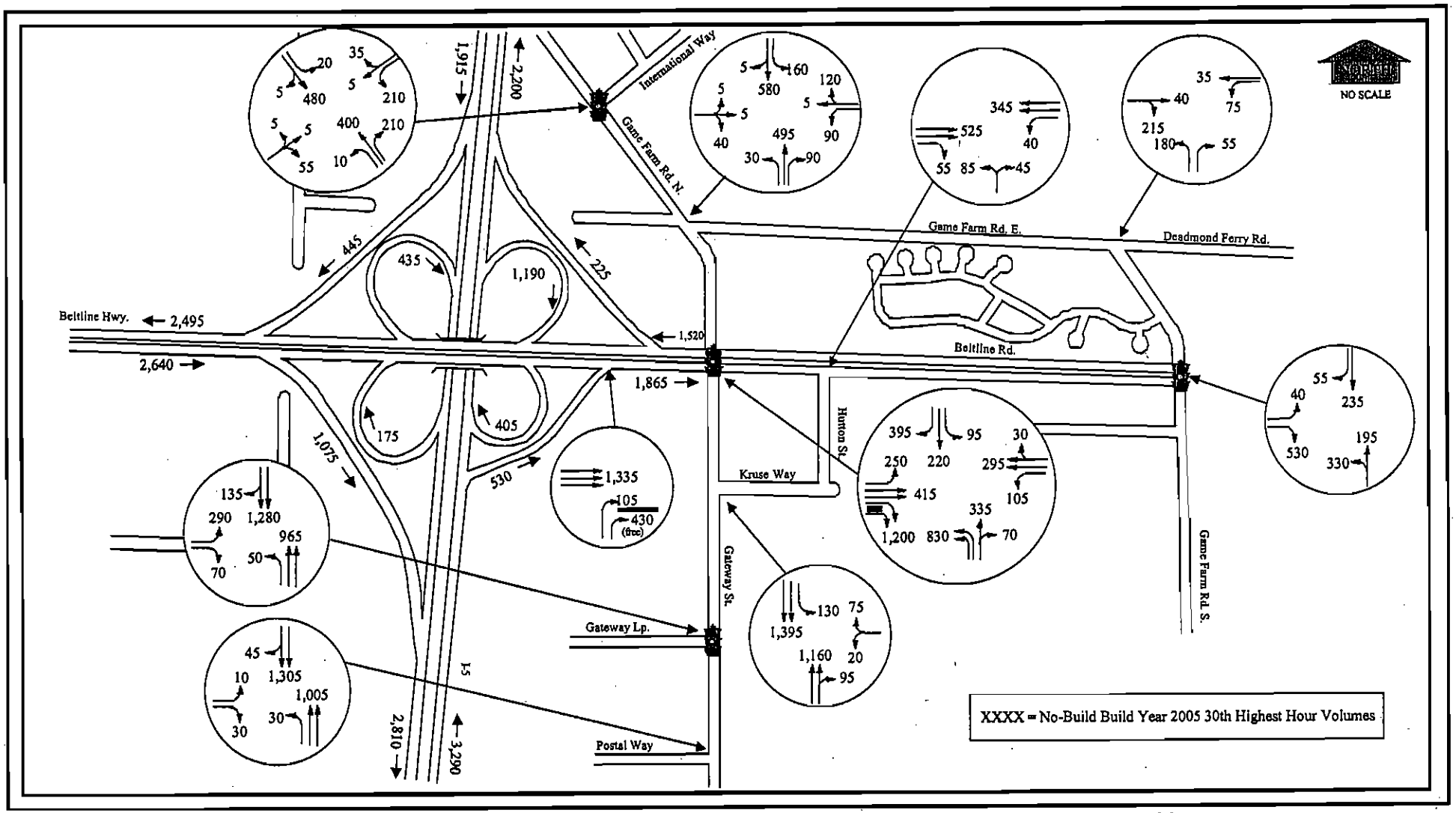
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

No Build, Year 2000
Design Hour Volumes & Lane Configurations

FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema
DATE : 04/10/00	Reviewed By: Brian G. Dunn, P.E.

Figure B-5



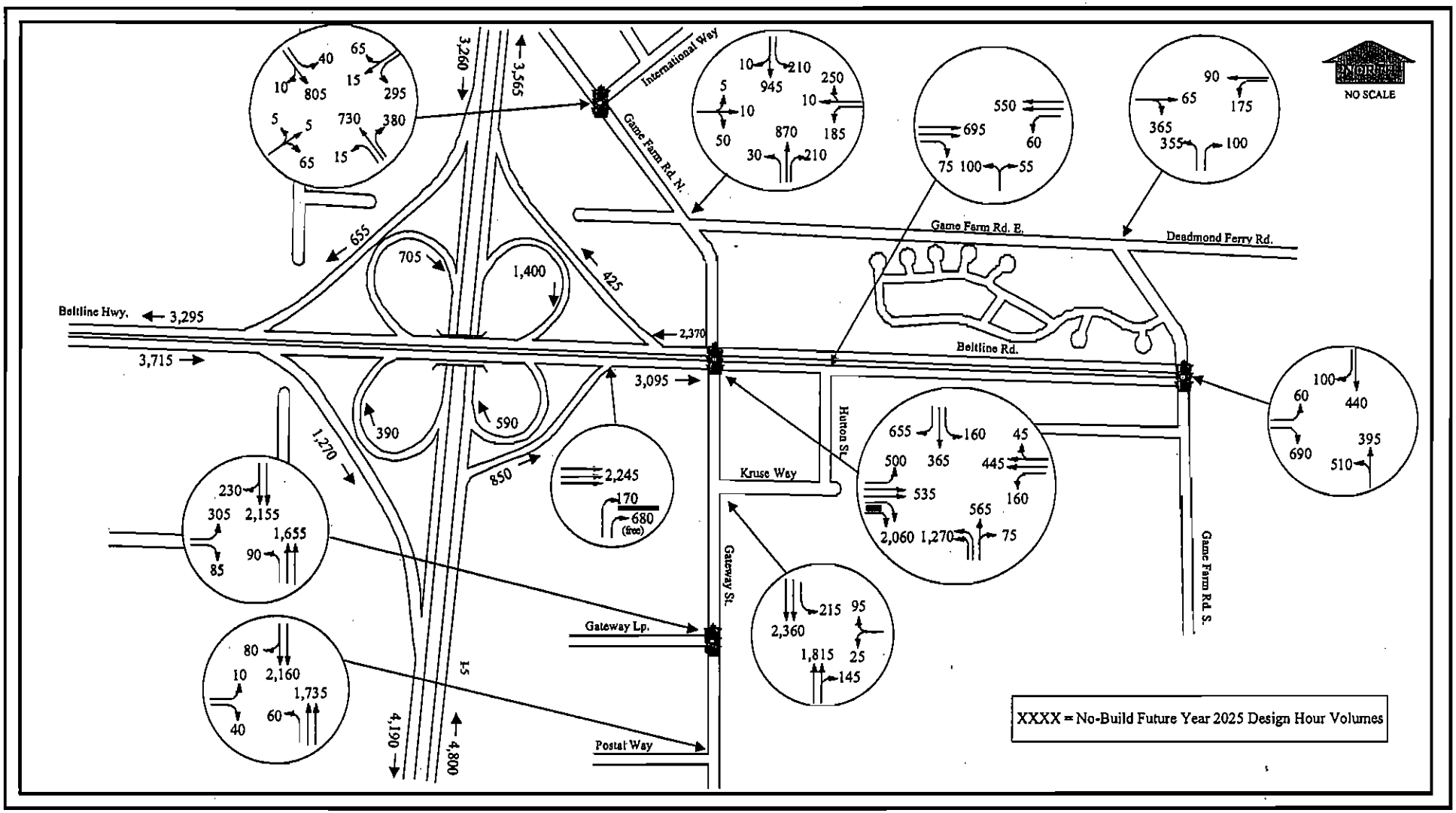
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

No Build, Year 2005
Design Hour Volumes & Lane Configurations

FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema
DATE : 04/11/00	Reviewed By: Brian G. Dunn, P.E.

Figure B-6



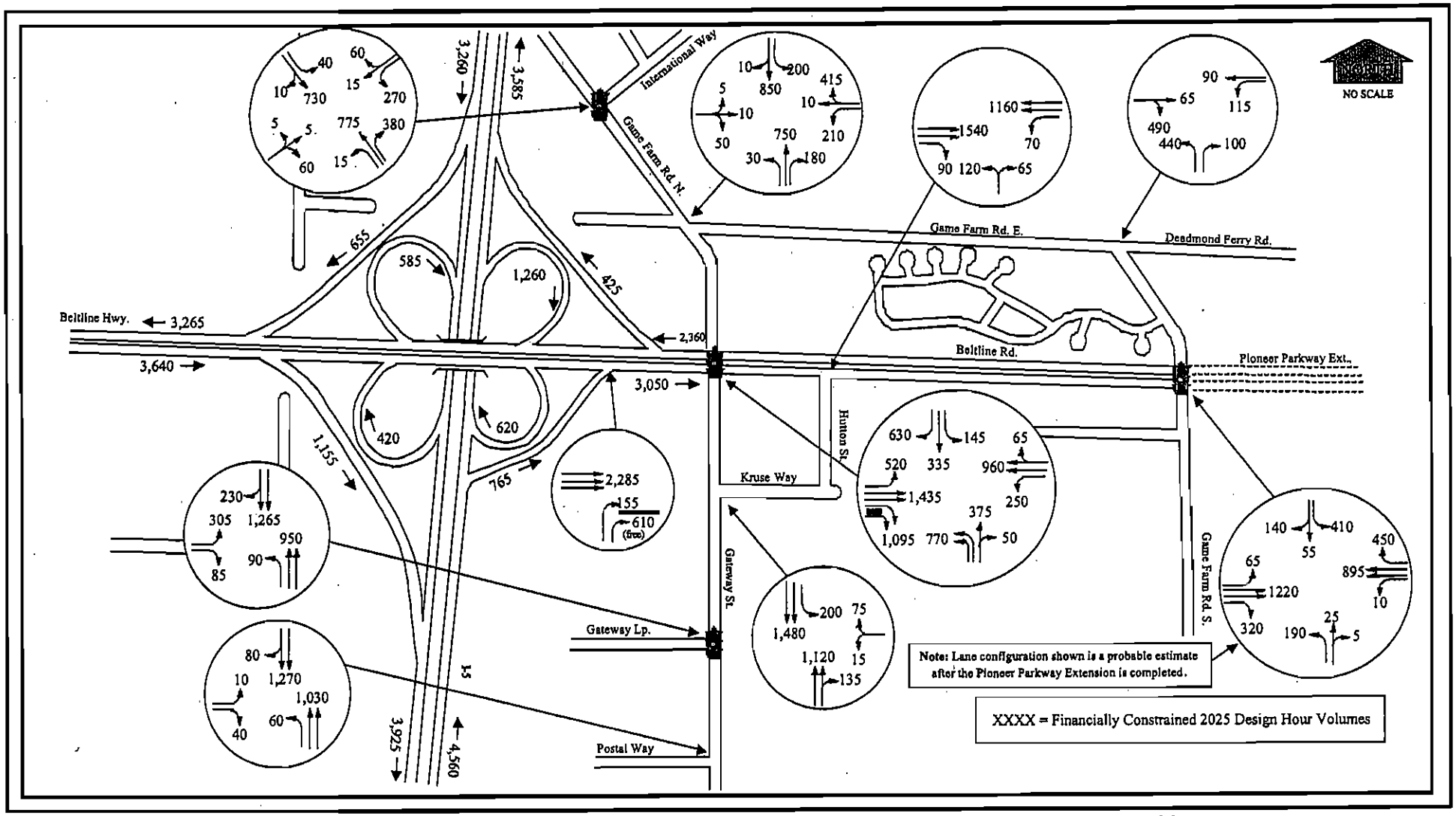
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

No Build, Year 2025
Design Hour Volumes & Lane Configurations

FILE : Beltline Int ~.ppt	Prepared By: Peter L. Schuytema
DATE : 05/26/00	Reviewed By: Brian G. Dunn, P.E.

Figure B-7



OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Financially Constrained, Year 2025
Design Hour Volumes & Lane Configurations

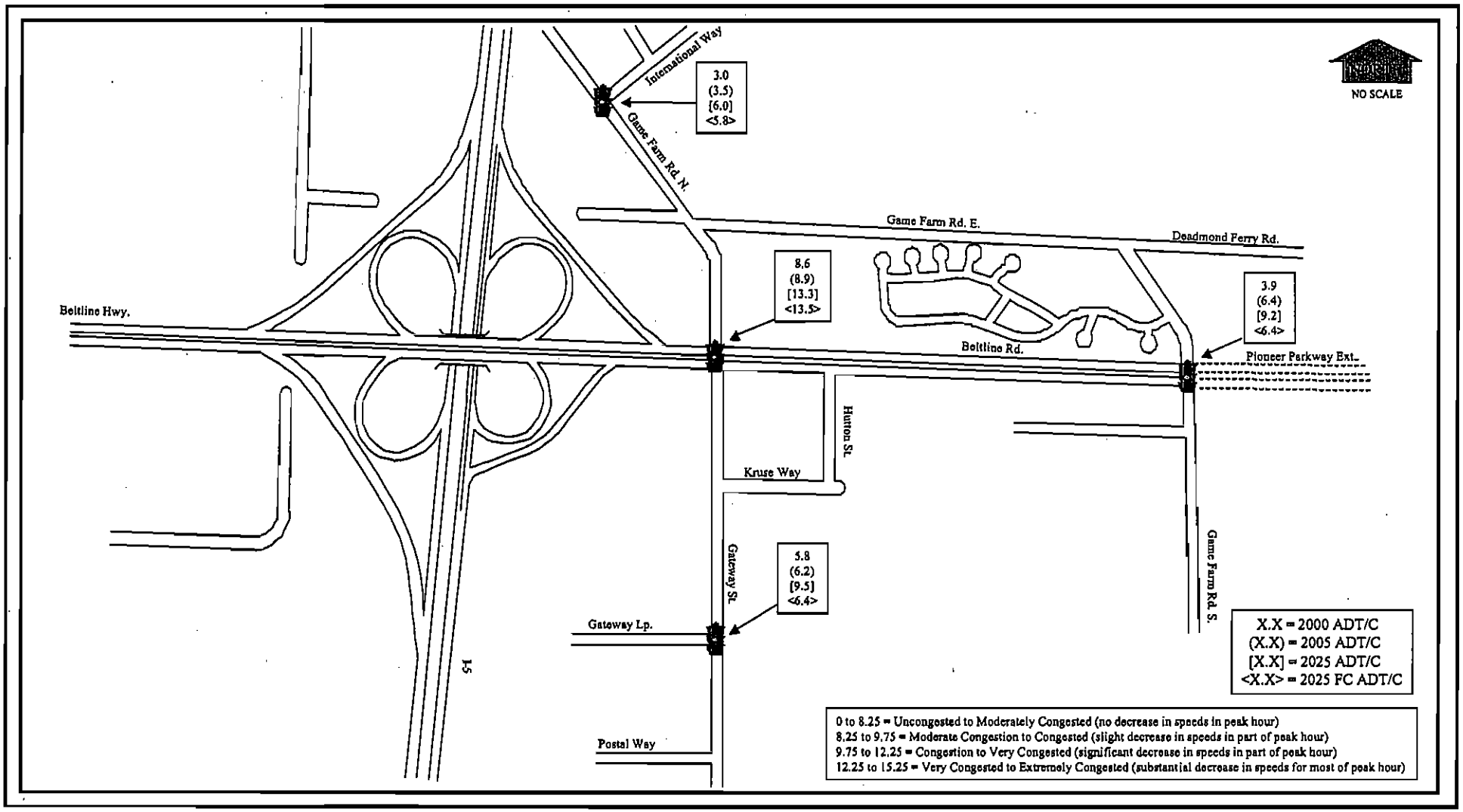
FILE : Beltline Int ~.ppt

DATE : 08/17/00

Prepared By: Peter L. Schuytema

Reviewed By: Brian G. Dunn, P.E.

Figure B-8



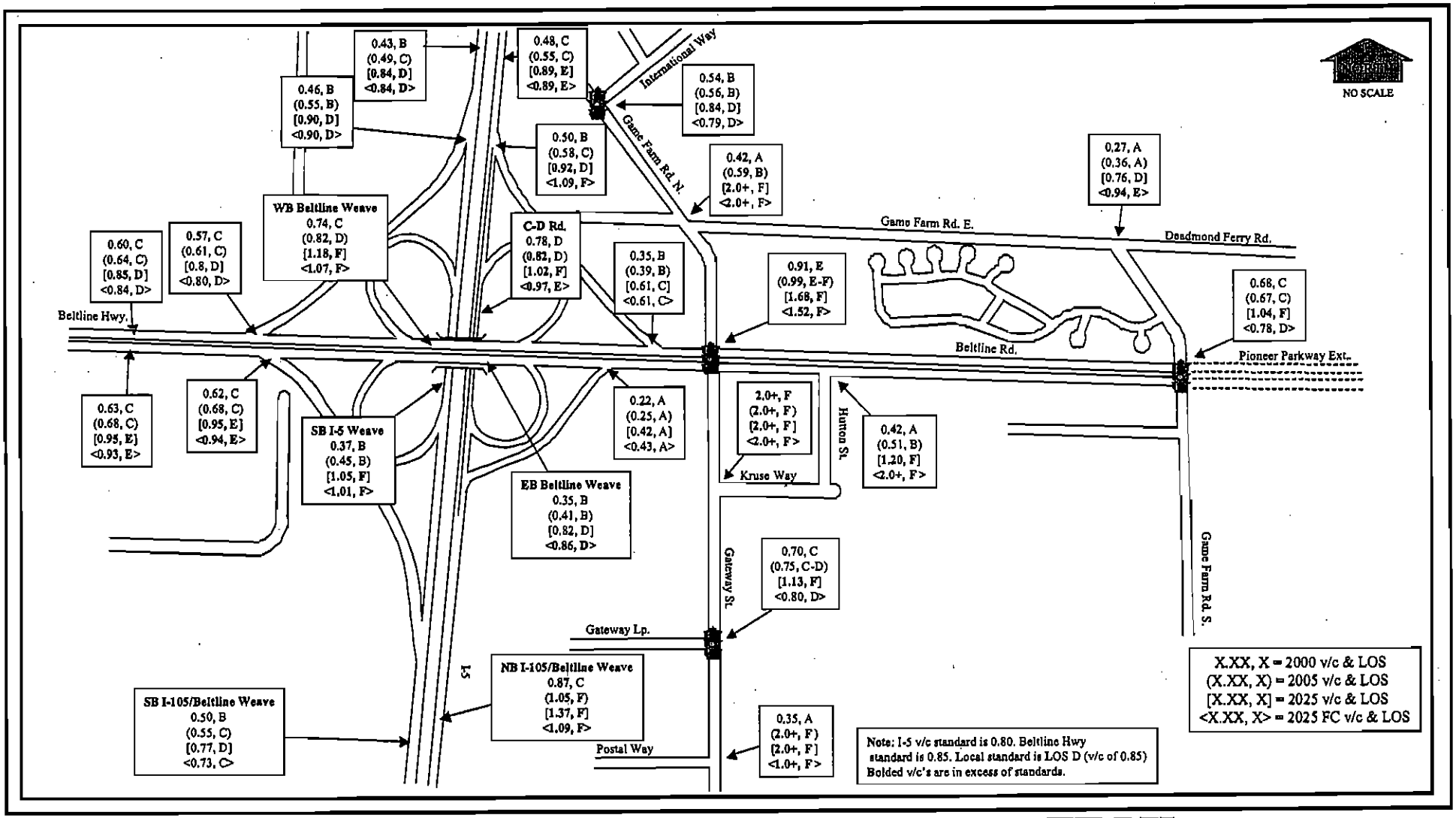
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

No Build & Financially Constrained, Years 2000, 2005 & 2025 Average Daily Traffic to Capacity Ratios

FILE : Beltline Int ~.ppt	Prepared By: Peter L. Schuytema
DATE : 11/08/00	Reviewed By: Brian G. Dunn, P.E.

Figure B-9



OREGON DEPARTMENT OF TRANSPORTATION

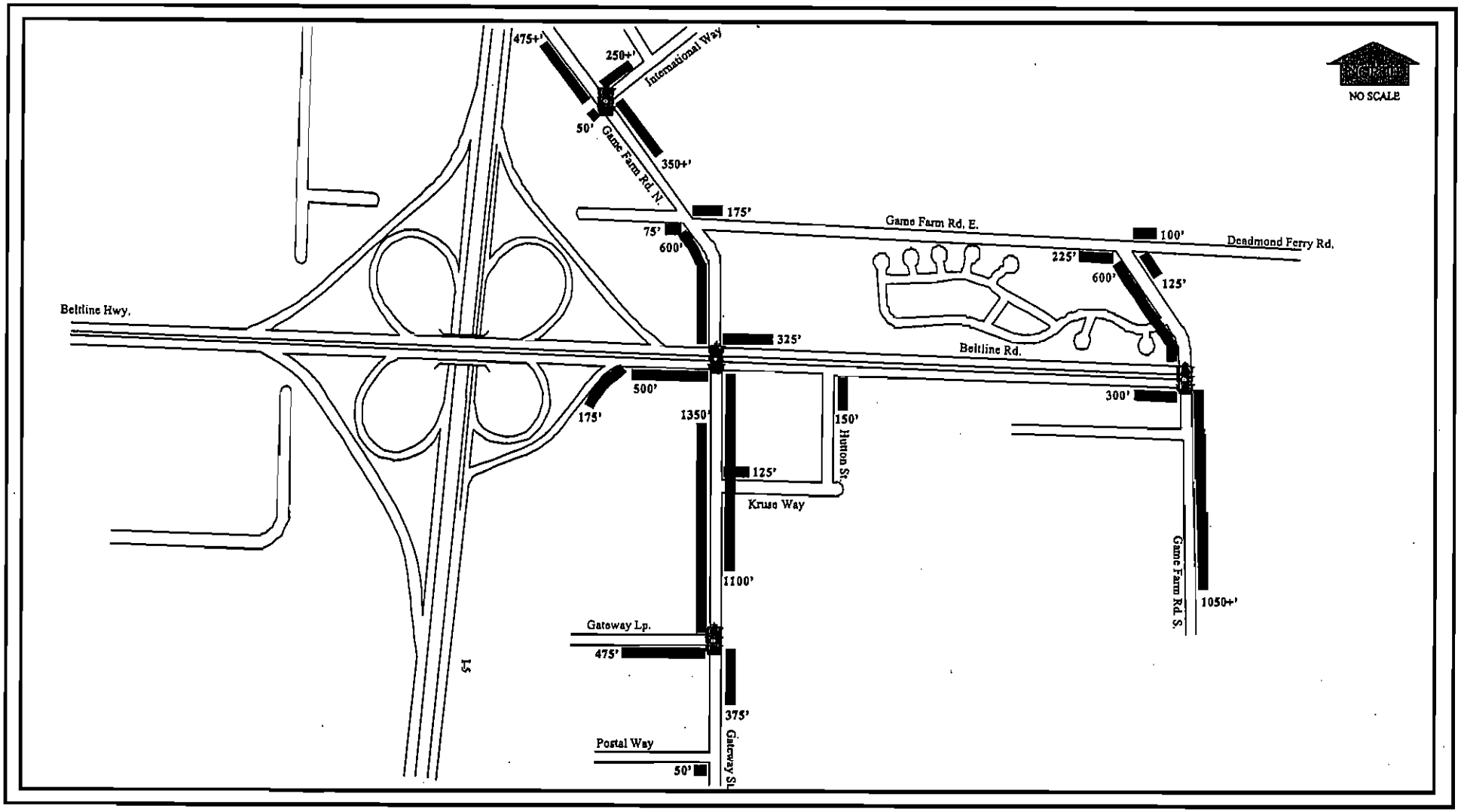
TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

No Build & Financially Constrained, Years 2000, 2005 & 2025 Design Hour Volume to Capacity Ratios & Levels of Service

FILE : Beltline Int -.ppt | Prepared By: Peter L. Schuytema

DATE : 2/27/01 | Reviewed By: Brian G. Dunn, P.E.

Figure B-10



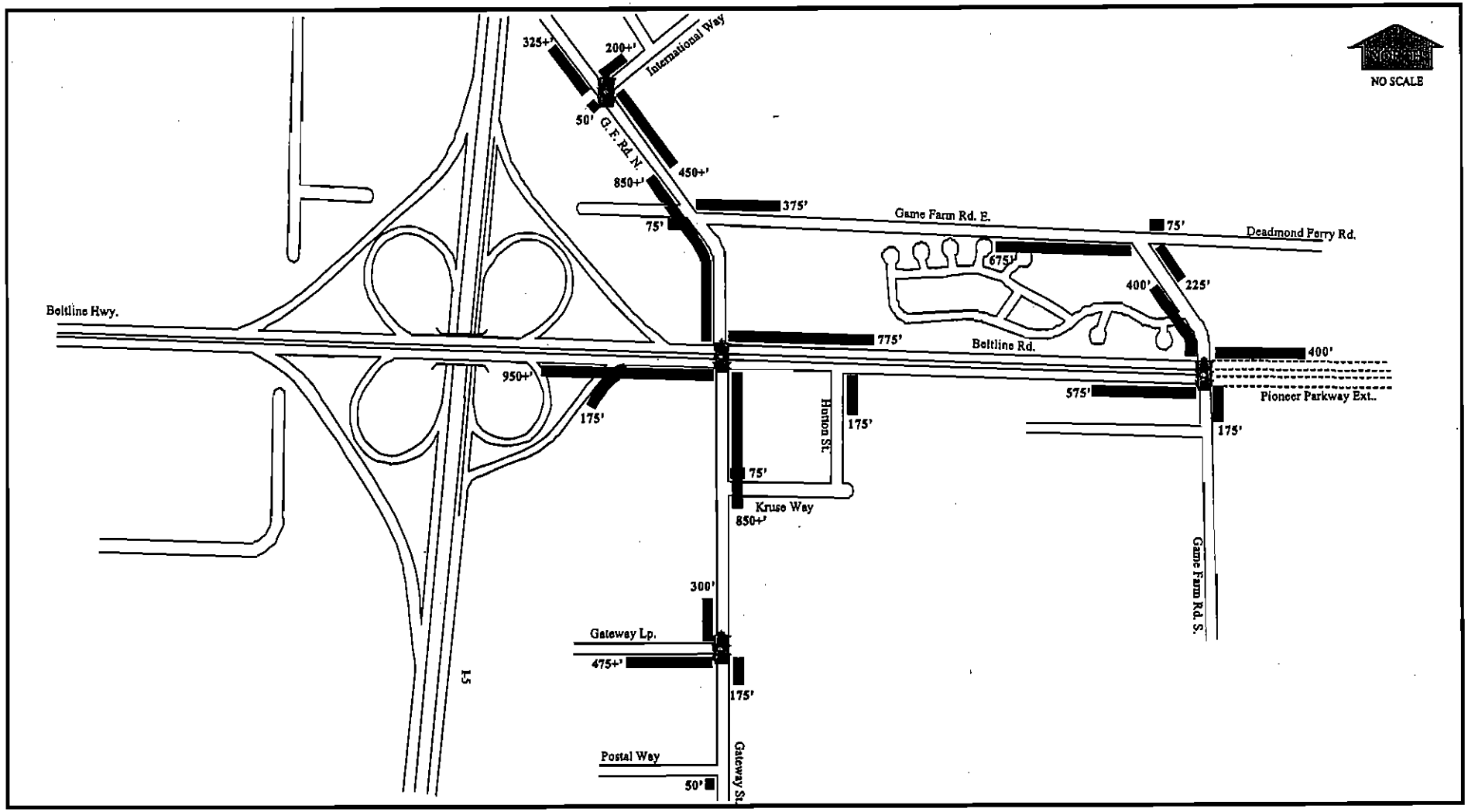
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

No Build, Year 2025
Design Hour 95th Percentile Queuing Lengths

FILE : Beltline Int -.ppt | Prepared By: Peter L. Schuytema
DATE : 11/08/00 | Reviewed By: Brian G. Dunn, P.E.

Figure B-11



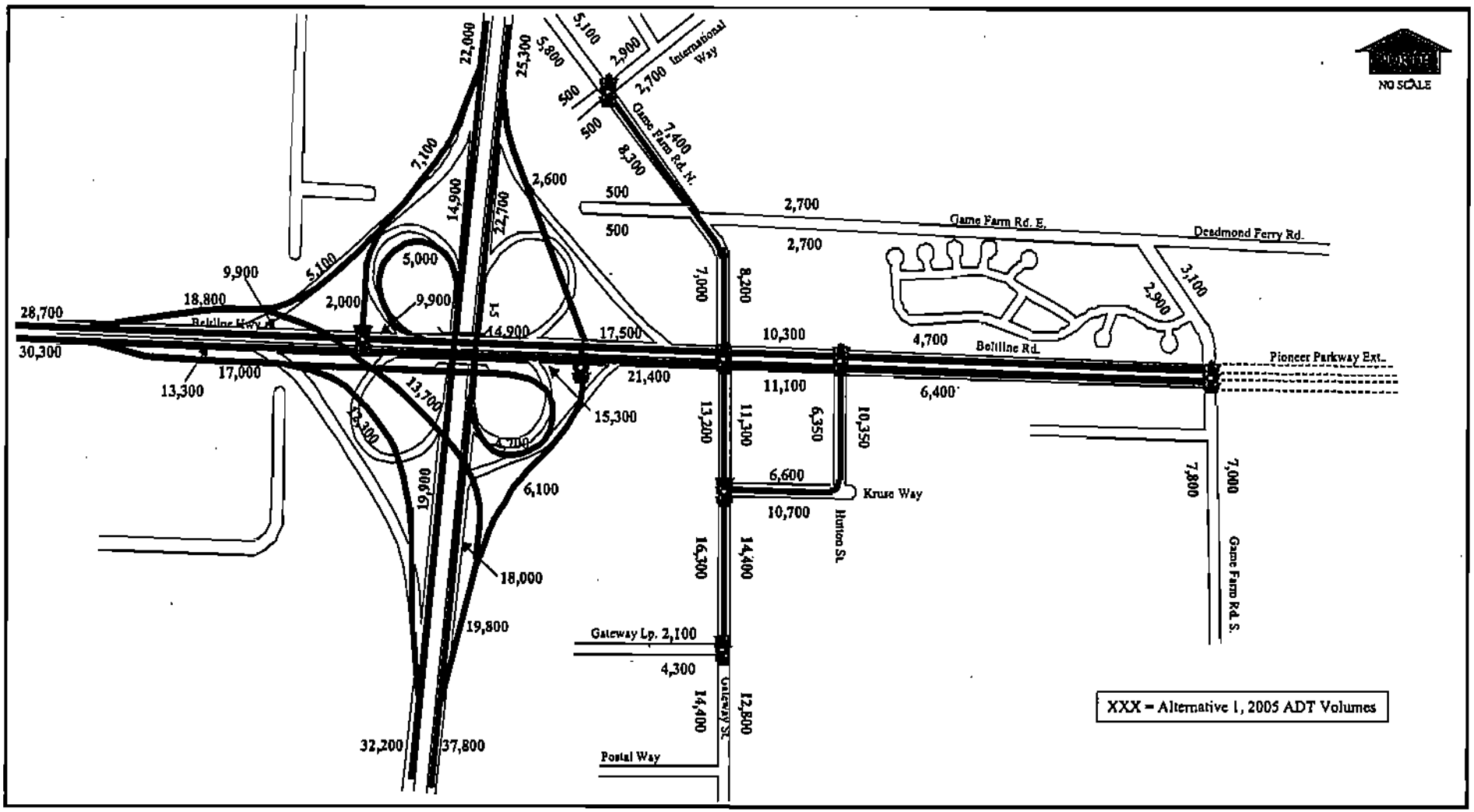
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Financially Constrained, Year 2025
Design Hour 95th Percentile Queuing Lengths

FILE : Beltline Int ~.ppt	Prepared By: Peter L. Schuytema
DATE : 11/09/00	Reviewed By: Brian G. Dunn, P.E.

Figure B-12



OREGON DEPARTMENT OF TRANSPORTATION

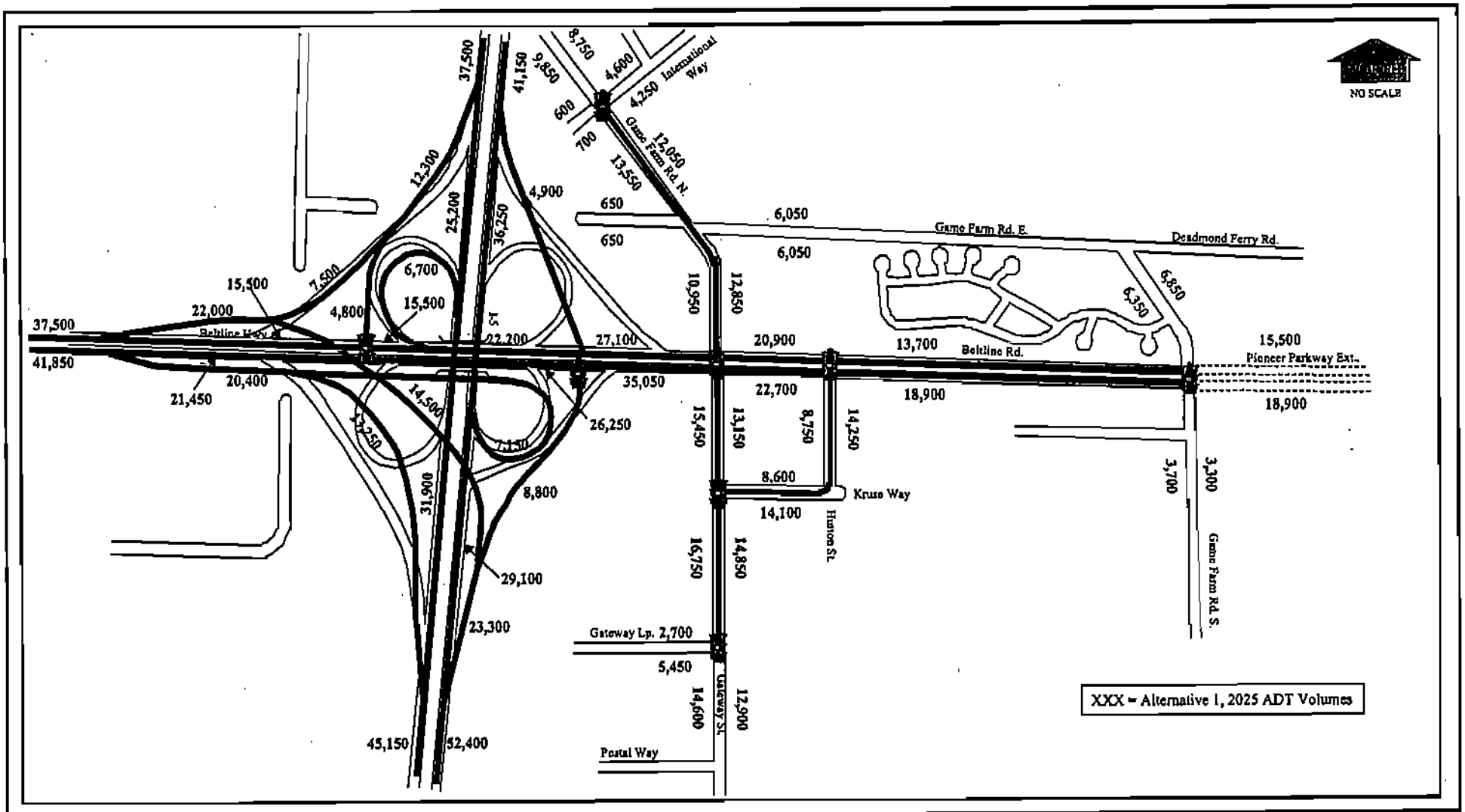
TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 1, Year 2005
Average Daily Traffic Volumes

FILE : Beltline Int -.ppt | Prepared By: Peter L. Schuyleme

DATE : 1/12/01 | Reviewed By: Brian G. Dunn, P.E.

Figure B-13



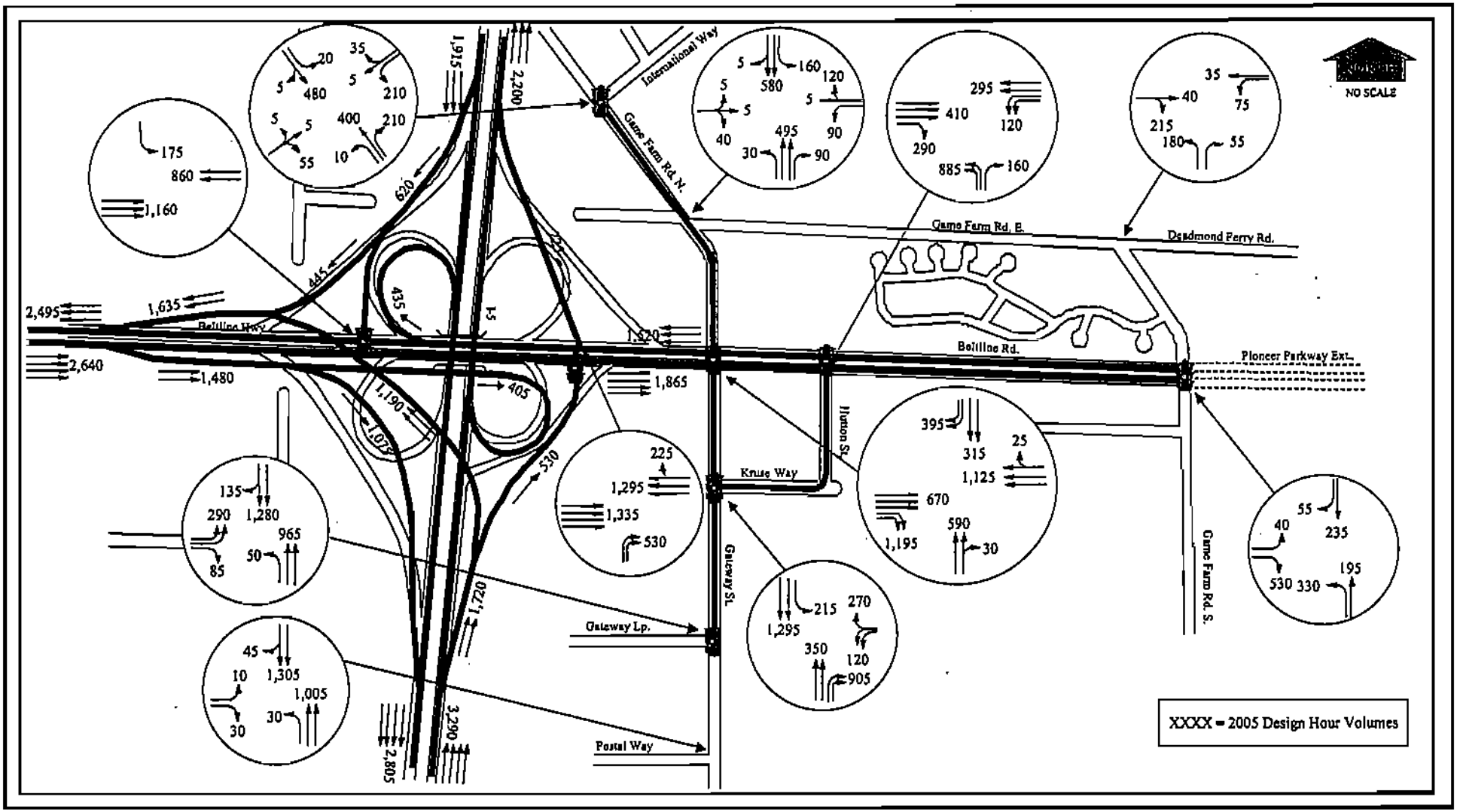
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 1, Year 2025
Average Daily Traffic Volumes

FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema
DATE : 1/12/01	Reviewed By: Brian G. Dunn, P.E.

Figure B-14



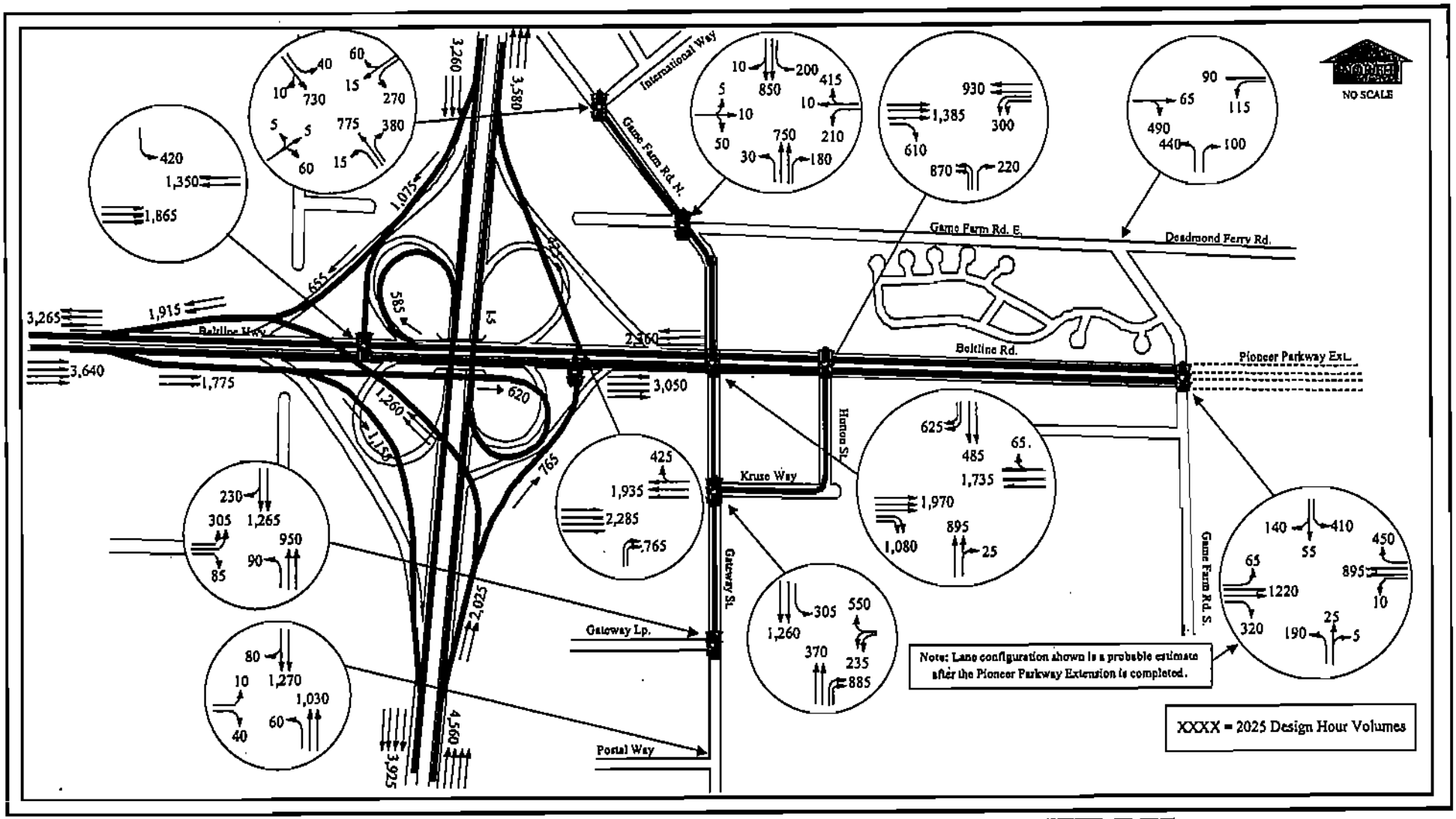
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 1, Year 2005
Design Hour Volumes & Lane Configurations

FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema
DATE : 1/04/01	Reviewed By: Brian G. Dunn, P.E.

Figure B-15



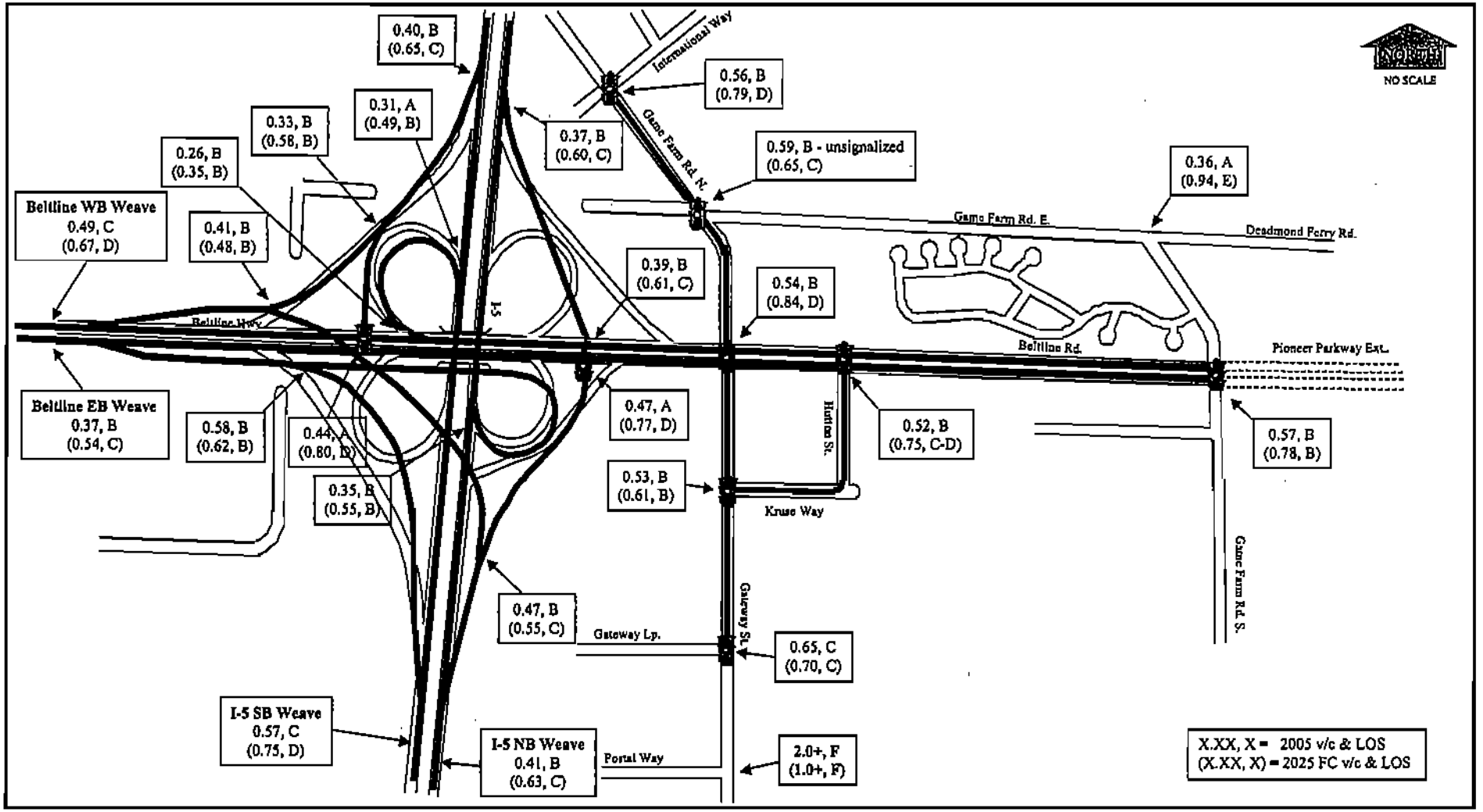
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 1, Year 2025
Design Hour Volumes & Lane Configurations

FILE : Baltline Int ~.ppt | Prepared By: Peter L. Schuyteme
DATE : 1/04/01 | Reviewed By: Brian G. Dunn, P.E.

Figure B-16



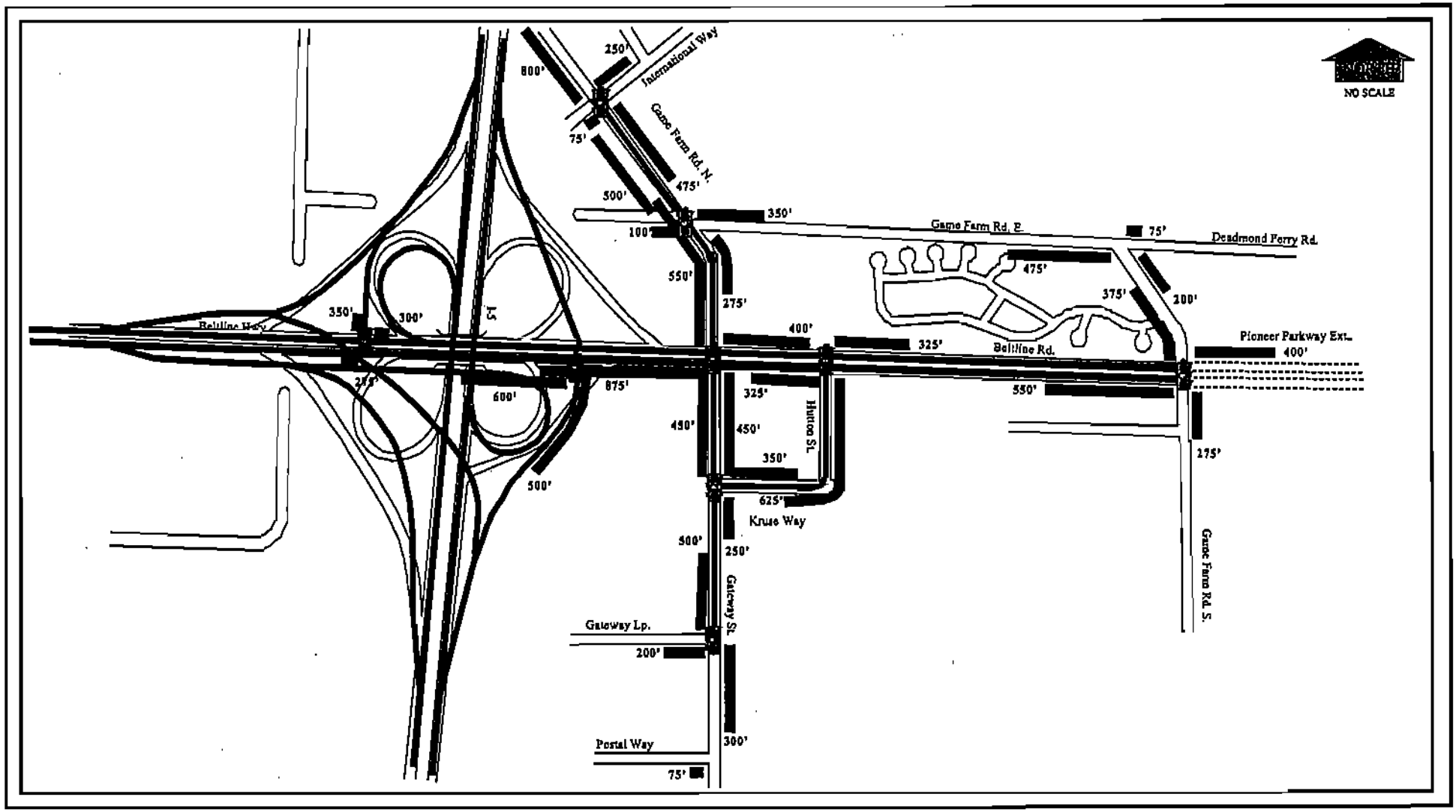
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 1, Years 2005 & 2025
Design Hour Volume to Capacity Ratios & Levels of Service

FILE : Beldlns Int -.ppt	Prepared By: Peter L. Schuytema
DATE : 2/27/01	Reviewed By: Brian G. Dunn, P.E.

Figure B-17



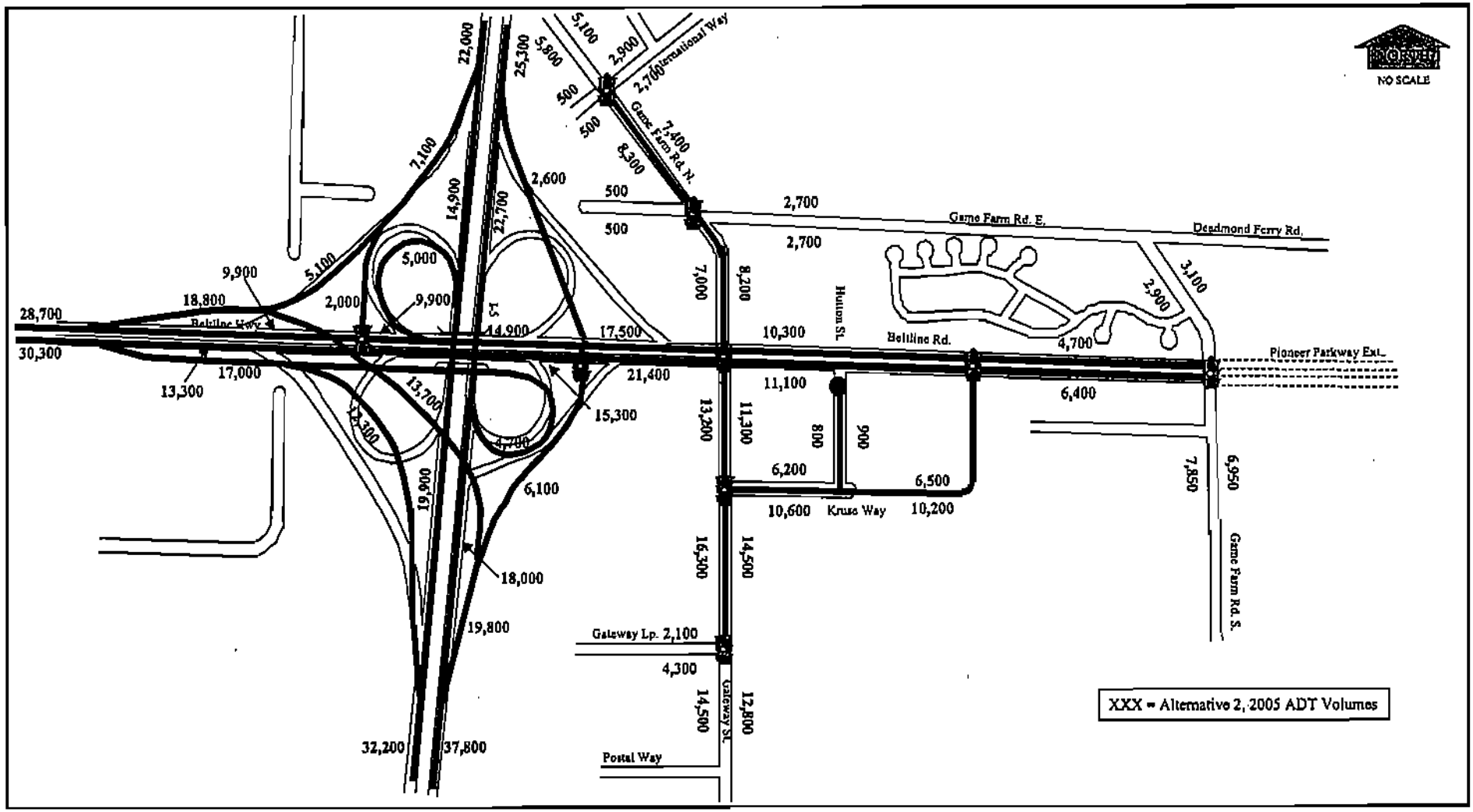
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 1, Year 2025
Design Hour 95th Percentile Queuing Lengths

FILE : Bellline Int -.ppt	Prepared By: Peter L. Schuytema
DATE : 1/12/01	Reviewed By: Brian G. Dunn, P.E.

Figure B-18



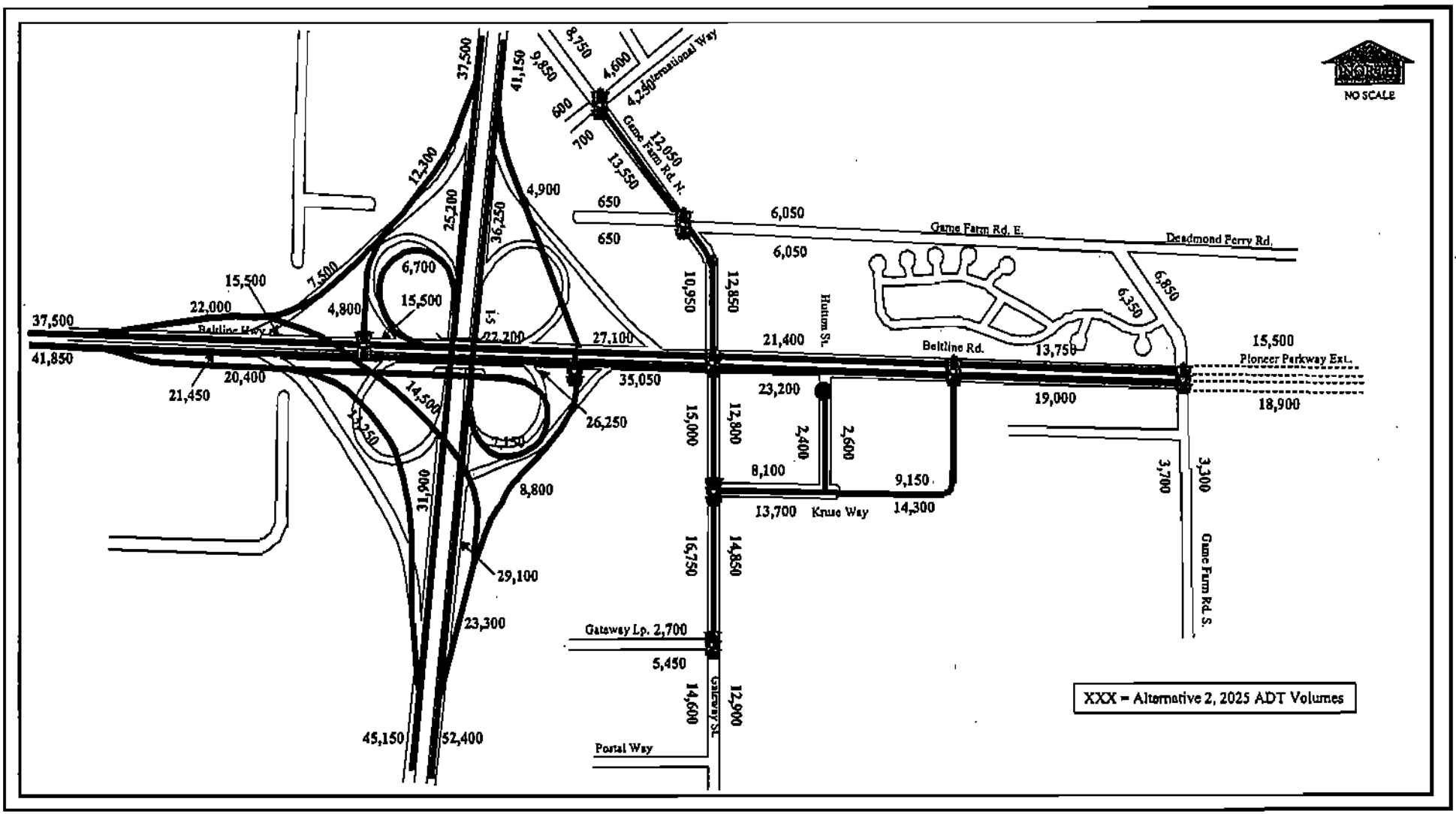
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 2, Year 2005
Average Daily Traffic Volumes

FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema
DATE : 1/12/01	Reviewed By: Brian G. Dunn, P.E.

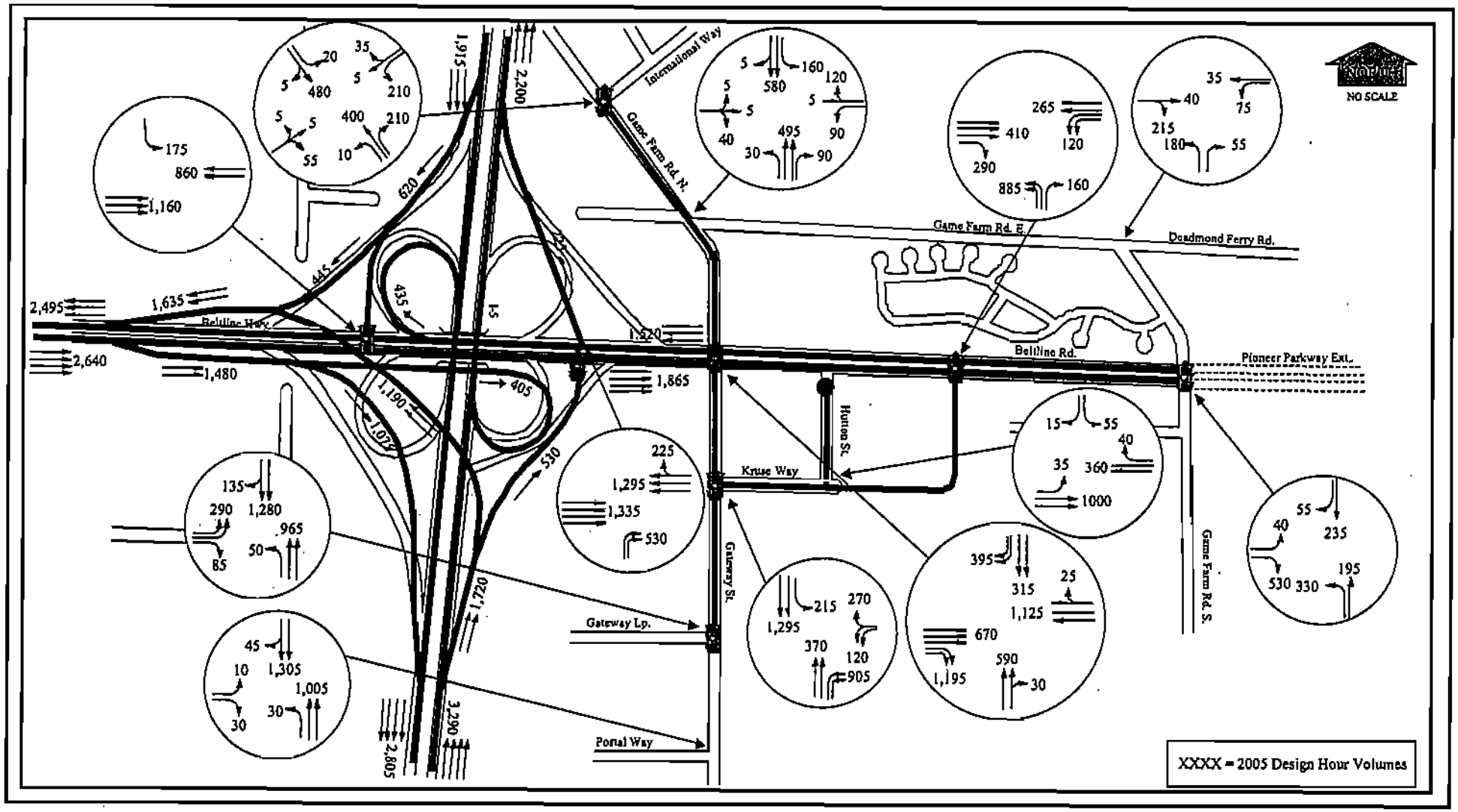
Figure B-19



OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 2, Year 2025 **Average Daily Traffic Volumes**	FILE : Beltline Int~.ppt	Prepared By: Peter L. Schuytema	**Figure B-20**
	DATE : 1/12/01	Reviewed By: Brian G. Dunn, P.E.	



OREGON DEPARTMENT OF TRANSPORTATION

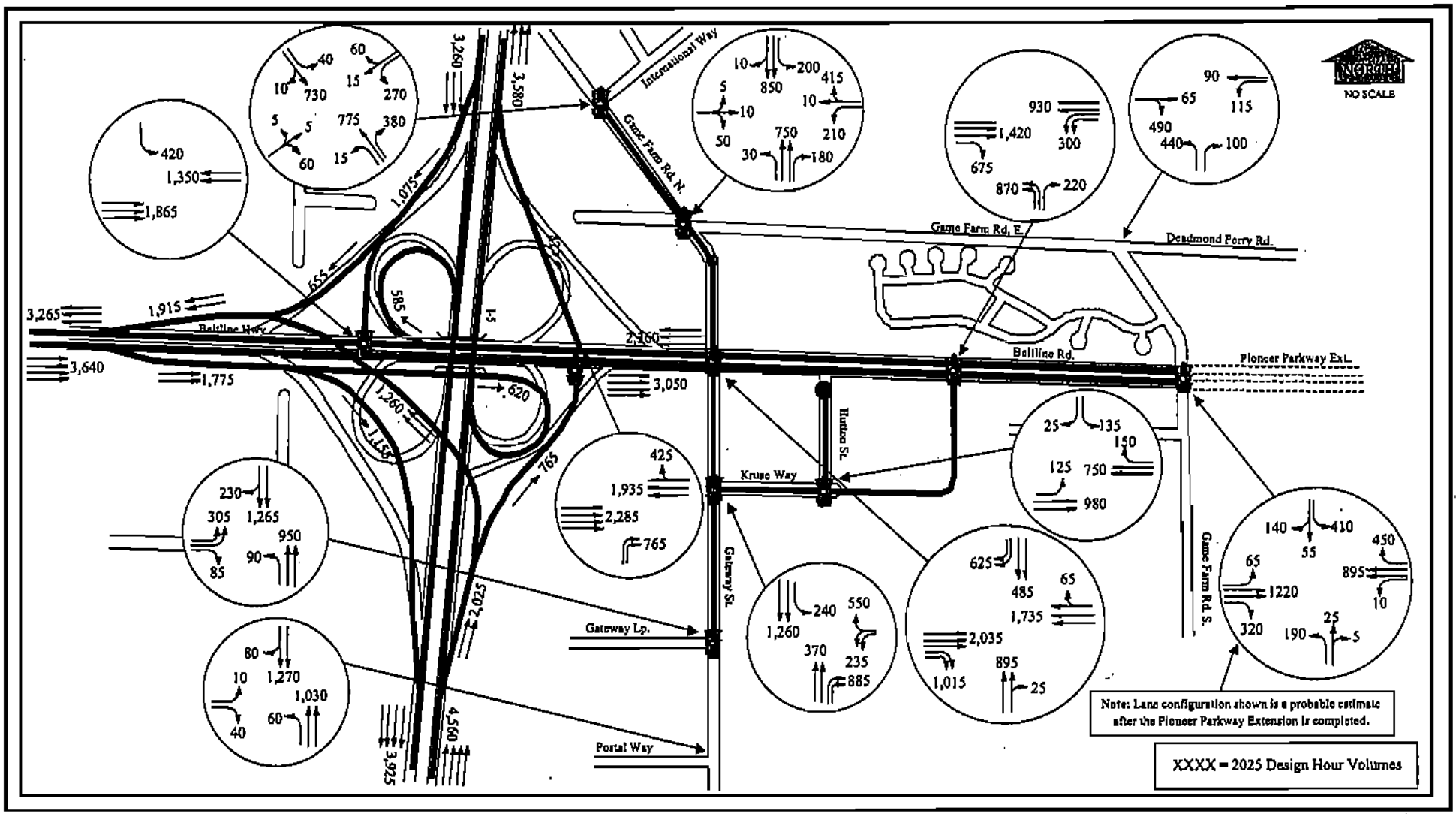
TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 2, Year 2005
Design Hour Volumes & Lane Configurations

FILE : Beltline Int -.ppt | Prepared By: Peter L. Schuytema

DATE : 1/04/01 | Reviewed By: Brian G. Dunn, P.E.

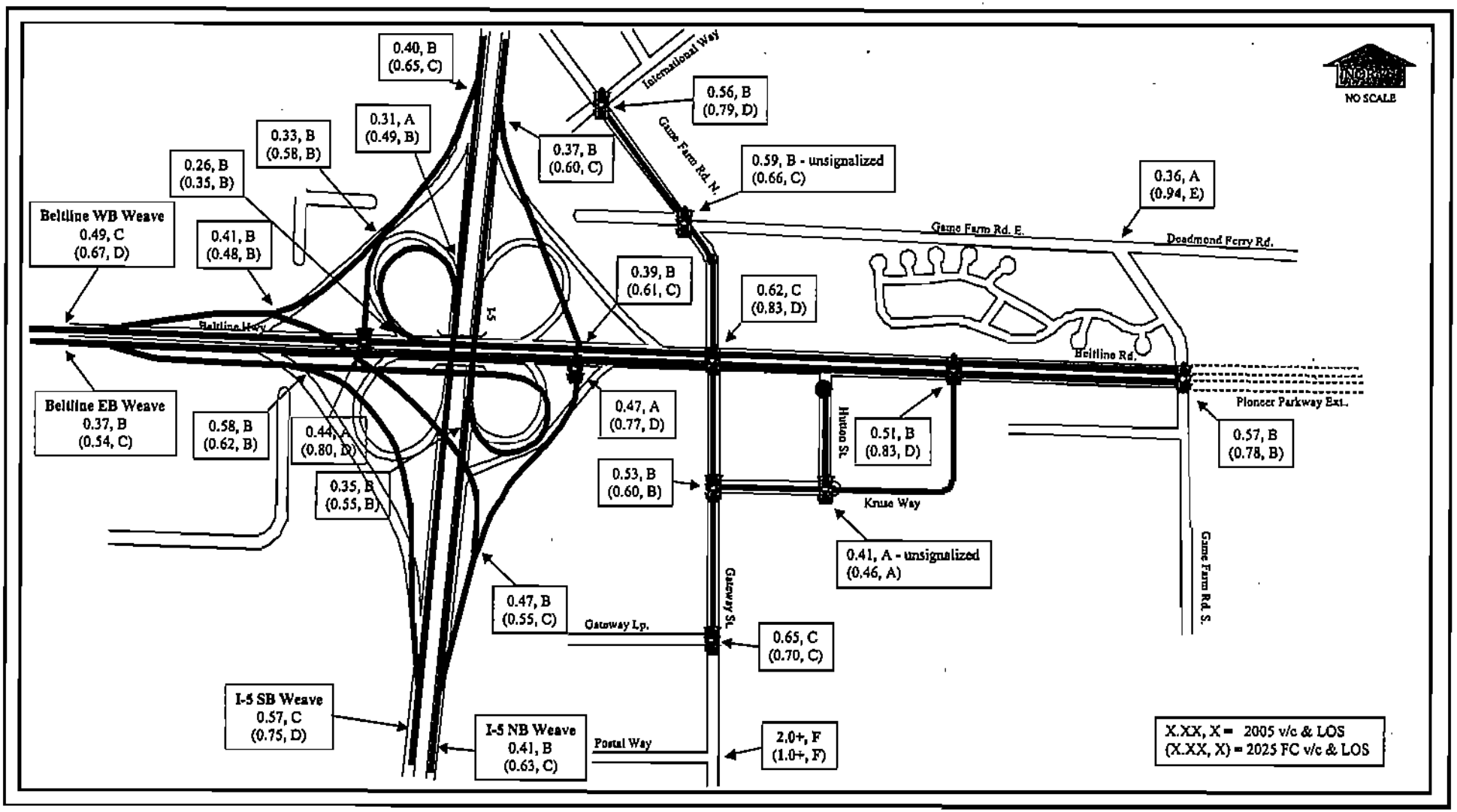
Figure B-21



OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 2, Year 2025 Design Hour Volumes & Lane Configurations	FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema	**Figure B-22**
	DATE : 1/04/01	Reviewed By: Brian G. Dunn, P.E.	



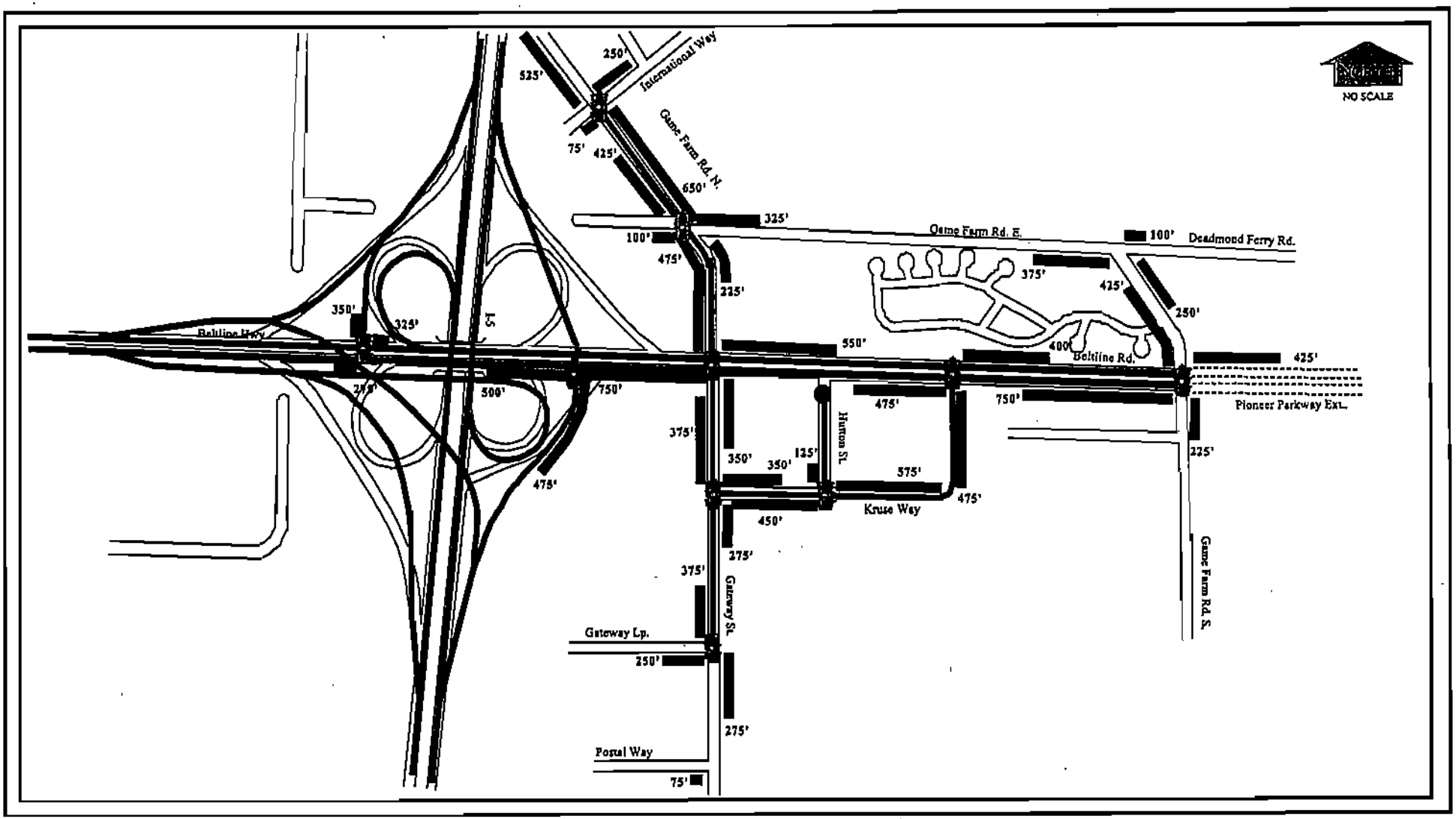
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 2, Years 2005 & 2025
Design Hour Volume to Capacity Ratios & Levels of Service

FILE : Beltline Int ~.ppt | Prepared By: Peter L. Schuytema
DATE : 2/27/01 | Reviewed By: Brian G. Dunn, P.E.

Figure B-23



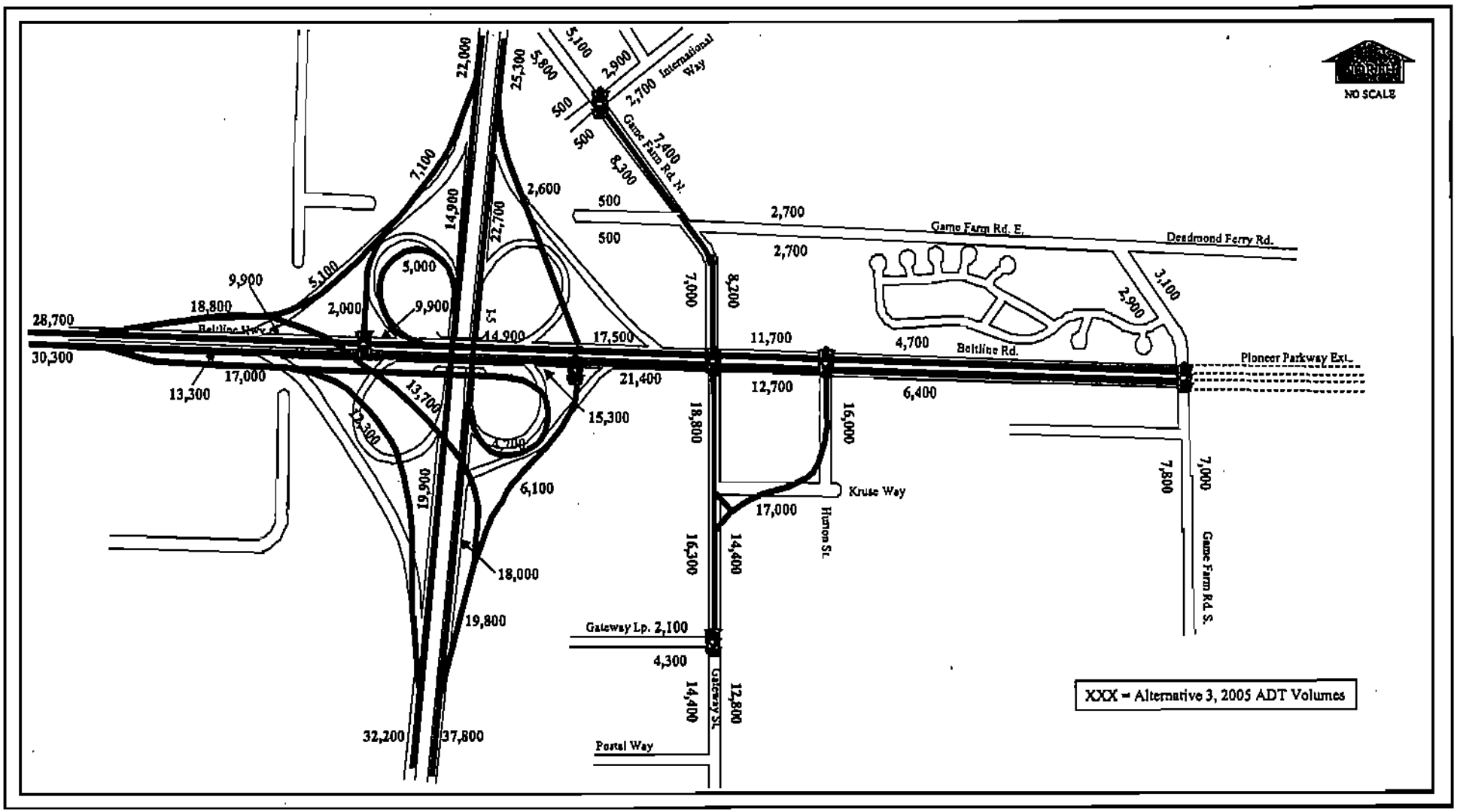
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 2, Year 2025
Design Hour 95th Percentile Queuing Lengths

FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema
DATE : 1/12/01	Reviewed By: Brian G. Dunn, P.E.

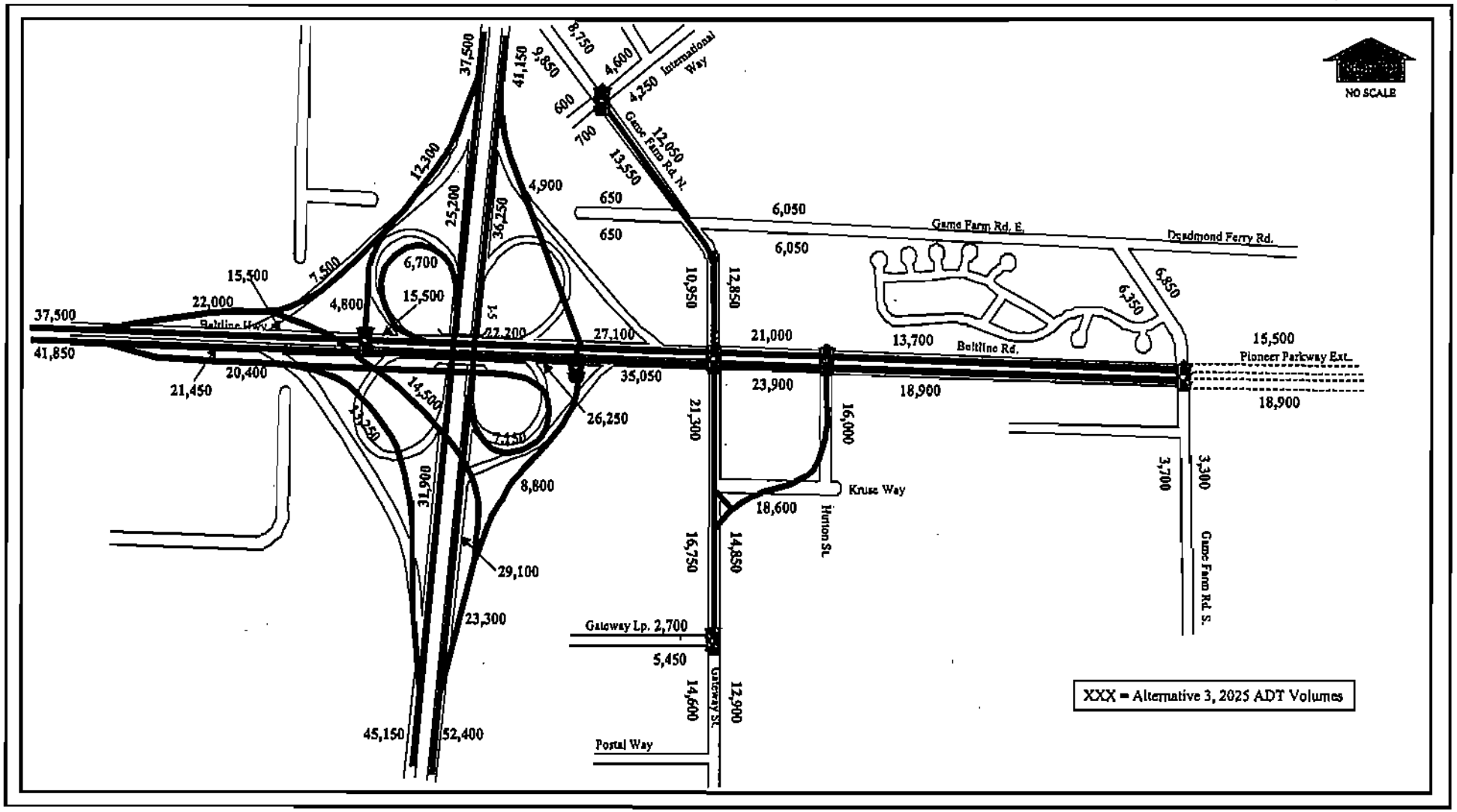
Figure B-24



OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 3, Year 2005 Average Daily Traffic Volumes	FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema	**Figure B-25**
	DATE : 1/12/01	Reviewed By: Brian G. Dunn, P.E.	



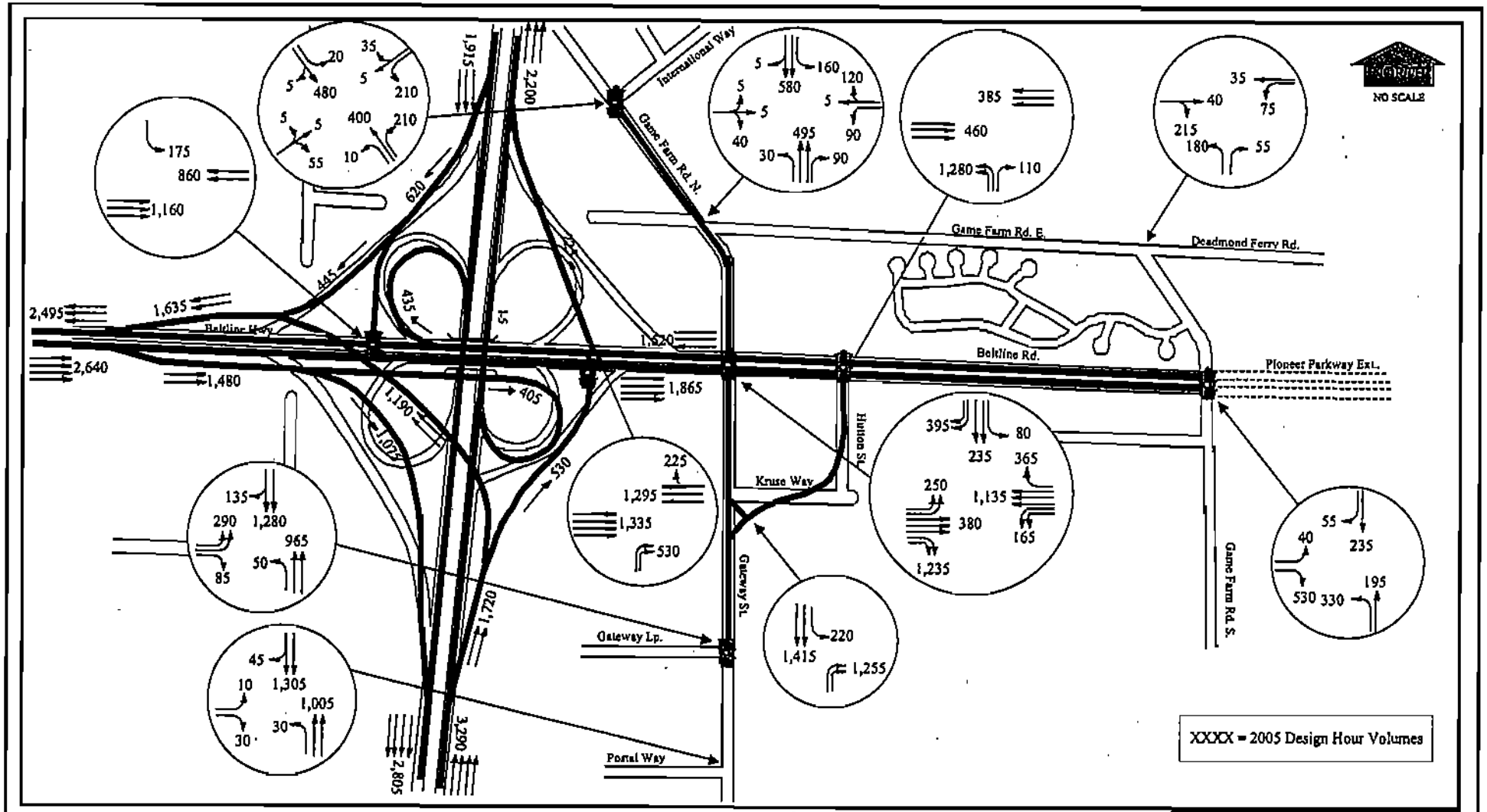
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 3, Year 2025
Average Daily Traffic Volumes

FILE : Beltline Int~.ppt | Prepared By: Peter L. Schuytema
DATE : 1/12/01 | Reviewed By: Brian G. Dunn, P.E.

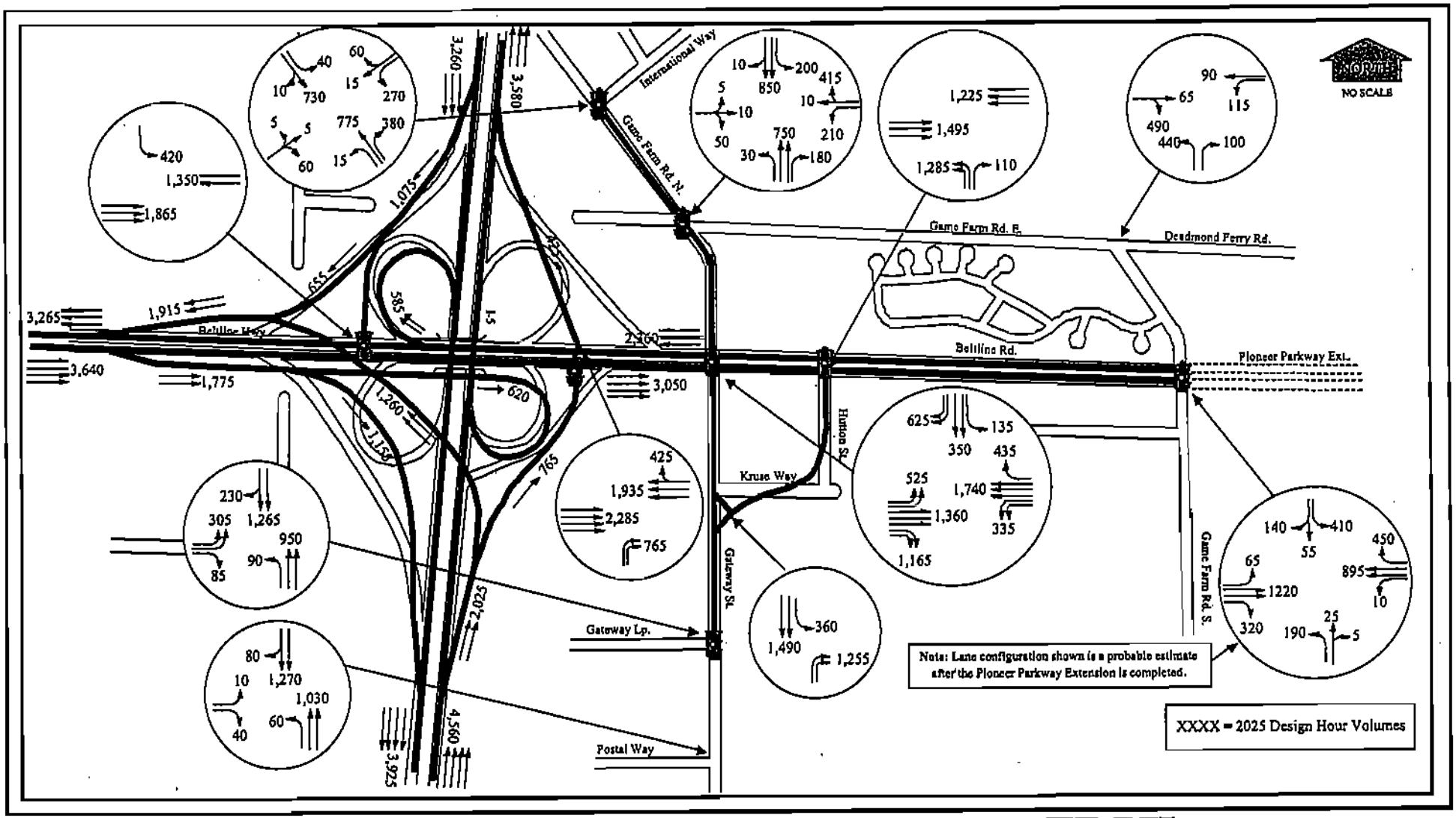
Figure B-26



OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 3, Year 2005 **Design Hour Volumes & Lane Configurations**	FILE : Baltline Int~.ppt DATE :2/07/01	Prepared By: Peter L. Schuytema Reviewed By: Brian G. Dunn, P.E.	**Figure B-27**



OREGON DEPARTMENT OF TRANSPORTATION

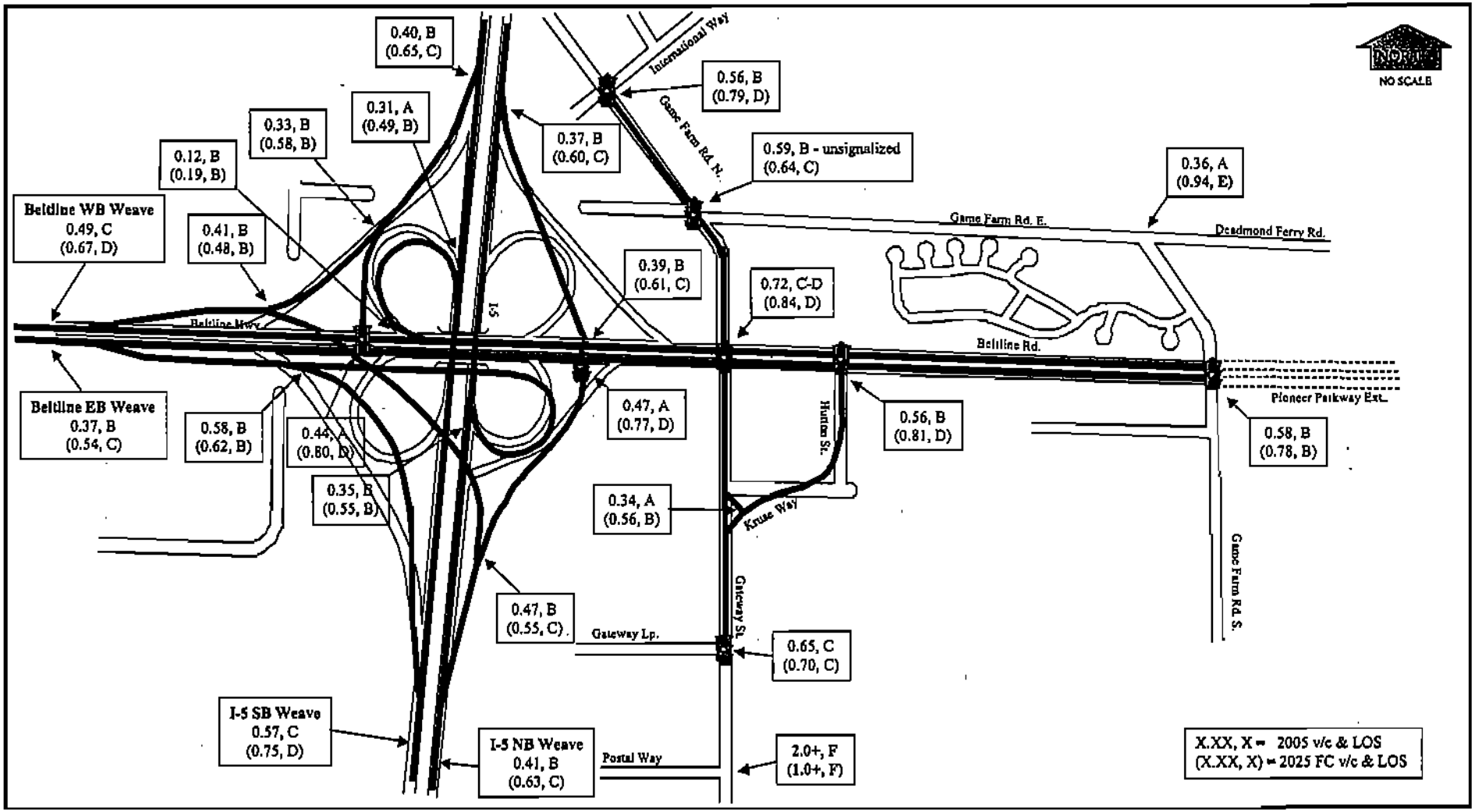
TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 3, Year 2025
Design Hour Volumes & Lane Configurations

FILE : Bellline Int -.ppt
DATE : 2/07/01

Prepared By: Peter L. Schuytema
Reviewed By: Brian G. Dunn, P.E.

Figure B-28



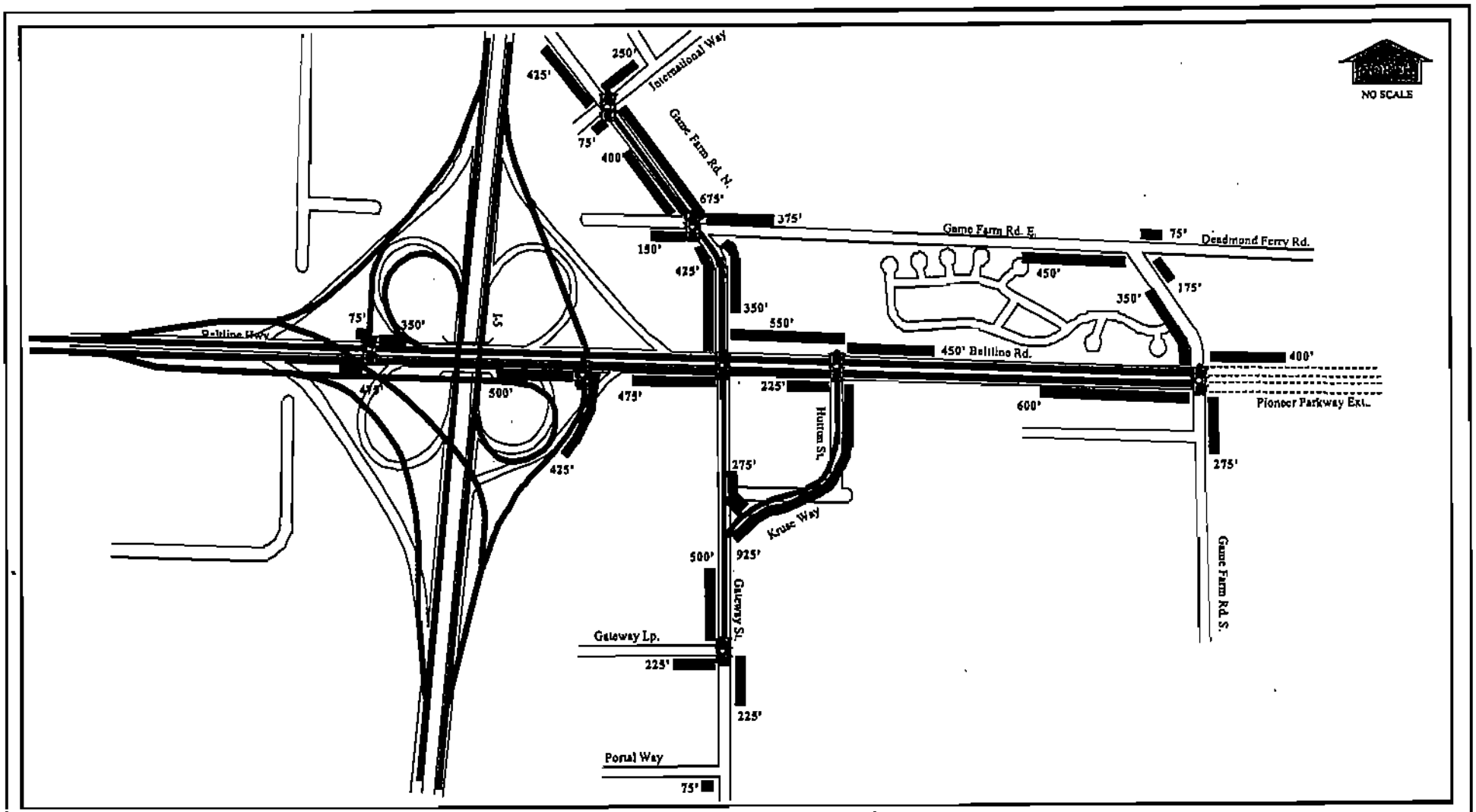
OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 3, Years 2005 & 2025
Design Hour Volume to Capacity Ratios & Levels of Service

FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema
DATE : 2/27/01	Reviewed By: Brian G. Dunn, P.E.

Figure B-29



OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Alternative 3, Year 2025
Design Hour 95th Percentile Queuing Lengths

FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema
DATE : 1/12/01	Reviewed By: Brian G. Dunn, P.E.

Figure B-30

APPENDIX C

Trip Origin-Destination Forecasts

Origin - Destination Volume Matrix: Existing Year 2000 30th Highest Hour Volumes

5/30/2001

Origin	Destination															
	I-5 N (NB)	I-5 S (SB)	Beltline W (WB)	Hutton (EB)	N Game Farm S (NB)	S Game Farm S (SB)	Game Farm W (NB)	Kruse Way (EB)	Gateway Loop (WB)	Postal Way (WB)	Gateway S (SB)	Game Farm W (WB)	Game Farm E (EB)	Int'l Way W (WB)	Int'l Way E (EB)	Totals
I-5 N (SB)		1125	405	5	0	30	10	10	10	0	70	0	5	0	5	1670
I-5 S (NB)	1375		1140	5	5	50	20	35	35	10	305	0	5	0	10	2995
Beltline W (EB)	370	1030		30	70	735	70	65	60	25	450	10	20	5	40	2420
Hutton (NB)	10	15	30		5	40	5	0	0	0	70	0	0	0	0	175
N Game Farm S (SB)	5	10	15	5		205	0	0	0	0	10	0	0	0	0	250
S Game Farm S (NB)	25	50	110	30	180		10	5	5	0	95	0	0	0	5	465
Game Farm N (SB)	25	50	105	5	0	40		10	10	5	75	5	55	5	15	445
Kruse Way (WB)	5	15	30	0	0	0	10		0	0	20	0	5	0	5	90
Gateway Loop (EB)	25	50	85	0	0	75	35	20		0	85	5	10	0	20	350
Postal Way (EB)	0	0	5	0	0	0	5	0	0		30	0	0	0	0	40
Gateway S (NB)	70	145	300	5	5	35	105	60	40	25		10	30	5	60	900
Game Farm W (EB)	5	5	10	0	0	5	5	0	0	0	15		5	0	0	60
Game Farm E (WB)	5	10	20	0	0	15	45	0	0	0	75	5		0	35	180
Int'l Way W (EB)	5	5	15	0	0	10	5	0	0	0	5	0	10		5	60
Int'l Way E (WB)	10	25	50	0	0	20	30	5	5	0	35	0	45	5		230
Totals	1935	2535	2330	85	195	710	375	200	185	65	1190	45	230	20	200	

Origin & Destination point locations

1. I-5 N: North of Beltline Interchange
2. I-5 S: South of Beltline Interchange
3. Beltline W: West of Beltline Interchange
4. Hutton Street: South of Beltline Road
5. N Game Farm S: North of Beltline Road
6. S Game Farm S: South of Beltline Road
7. Game Farm N: North of International Way
8. Kruse Way: East of Gateway Street
9. Gateway Loop: West of Gateway Street
10. Postal Way: West of Gateway Street
11. Gateway S: South of Postal Way
12. Game Farm W: West of Game Farm Road N/Gateway Street
13. Game Farm E: East of Gateway
14. International Way W: West of Game Farm Road N
15. International Way E: East of Game Farm Road N

Origin - Destination Volume Matrix: 2025 Design Hour Volumes

5/30/2001

Origin \ Destination	I-5 N (NB)	I-5 S (SB)	Baldine W (WB)	Hutton (SB)	N Game Farm S (NB)	S Game Farm S (SB)	Game Farm N (NB)	Kruse Way (SB)	Gateway Loop (WB)	Postal Way (WB)	Gateway S (SB)	Game Farm W (WB)	Game Farm E (EB)	Int'l Way W (WB)	Int'l Way E (EB)	Totals
I-5 N (SB)		2215	655	10	6	60	35	70	28	10	195	0	70	0	20	3260
I-5 S (NB)	2545		1490	10	6	75	40	85	50	20	845	5	15	0	20	4815
Baldine W (EB)	590	1270		35	20	370	170	105	110	35	890	10	60	5	85	3715
Hutton (NB)	10	20	35		6	60	5	0	0	0	20	0	0	0	5	155
N Game Farm S (SB)	10	20	30	10		440	5	0	5	0	20	0	0	0	0	540
S Game Farm S (NB)	55	100	180	50	455		15	10	10	5	90	0	5	0	10	965
Game Farm N (SB)	65	120	180	10	5	75		15	15	5	185	5	145	10	40	855
Kruse Way (WB)	10	20	30	0	0	5	15		5	0	20	0	5	0	10	120
Gateway Loop (EB)	35	60	90	0	0	10	45	25		5	50	5	15	0	25	380
Postal Way (EB)	0	0	5	0	0	0	5	0	0		40	0	0	0	0	50
Gateway S (NB)	150	370	410	5	5	40	180	120	90	60		10	70	5	95	1510
Game Farm W (EB)	5	10	15	0	0	5	5	0	0	0	15		10	0	0	65
Game Farm E (WB)	20	30	50	0	0	25	180	5	5	0	50	10		5	45	445
Int'l Way W (EB)	5	10	15	0	0	10	5	0	0	0	15	0	10		5	75
Int'l Way E (WB)	25	40	65	5	0	25	65	5	5	0	45	5	55	15		375
Totals	3545	4190	3220	135	506	1135	745	390	330	140	2200	50	415	40	410	

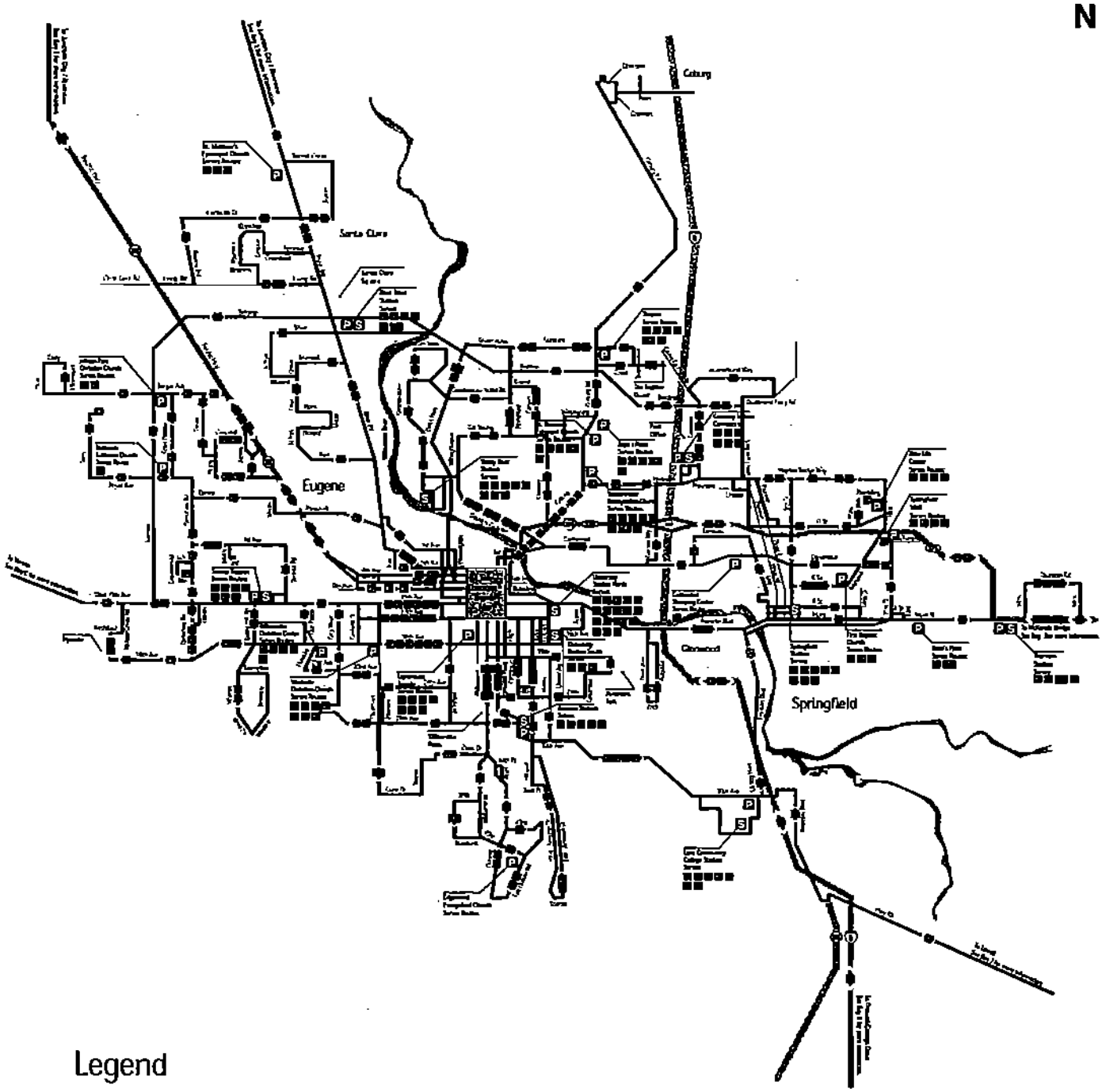
Origin & Destination point locations

1. I-5 N: North of Baldine Interchange
2. I-5 S: South of Baldine Interchange
3. Baldine W: West of Baldine Interchange
4. Hutton Street: South of Baldine Road
5. N Game Farm S: North of Baldine Road
6. S Game Farm S: South of Baldine Road
7. Game Farm N: North of International Way
8. Kruse Way: East of Gateway Street
9. Gateway Loop: West of Gateway Street
10. Postal Way: West of Gateway Street
11. Gateway S: South of Postal Way
12. Game Farm W: West of Game Farm Road N/Gateway Street
13. Game Farm E: East of Gateway
14. International Way W: West of Game Farm Road N
15. International Way E: East of Game Farm Road N

APPENDIX D

LTD Bus Routes

System Map



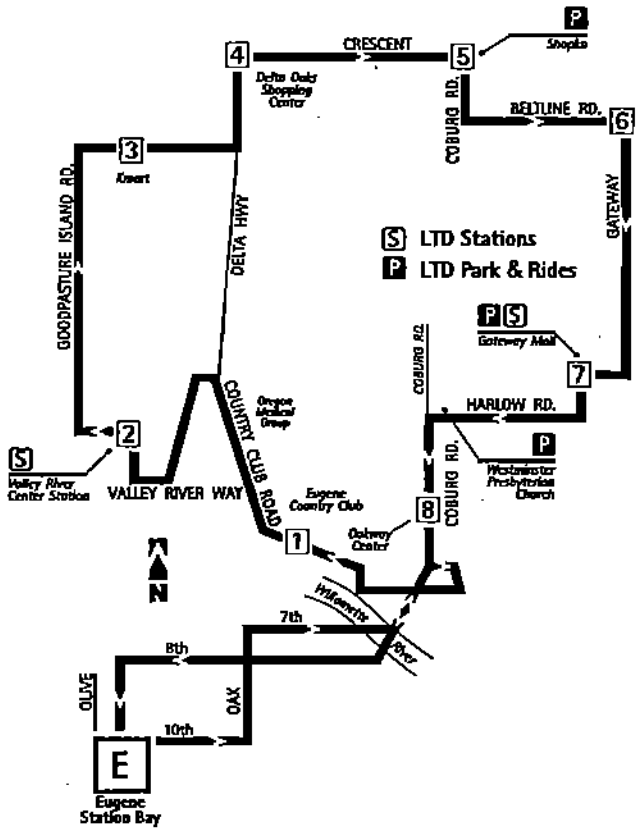
Legend

- LTD Bus Routes
- S LTD Station
  Convenient transfer stations
- P Park & Ride
  Park for free and ride LTD

LTD provides transit service throughout Lane County. The majority of LTD buses travel to and from Eugene Station in downtown Eugene. Most transfers take place at Eugene Station.

Some evening and weekend routing, and some route variations are not shown on this map. See maps and schedules at bus bays for detailed routes and schedules.

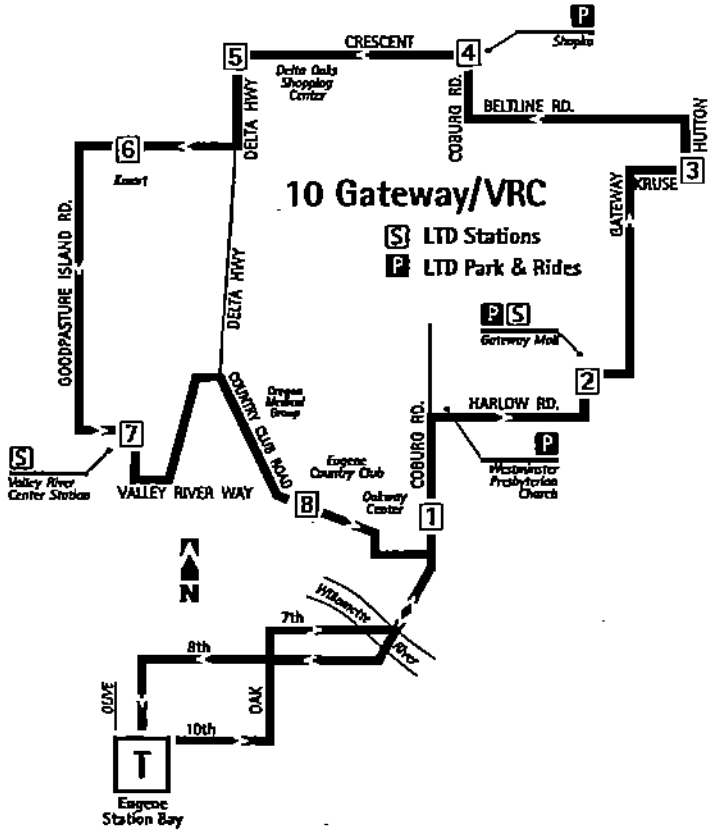
9 VRC/Gateway *SAT/SUN*



From:	Eugene Downtown								From:	Gateway	
To:	VRC/Gateway								To:	Eugene Downtown	
Name:	9 VRC/Gateway								Name:	9 Eugene Station	
	LEAVE Eugene Station [E]	Eugene Country Club [1]	Valley River Center [2]	Kmart [3]	Delta Oaks Shopping Center [4]	Crescent at Coburg [5]	Gateway at Beltline [6]	ARRIVE Gateway Station [7]	LEAVE Gateway Station [7]	Oakway Center [8]	ARRIVE Eugene Station
	SATURDAY										
AM	10:15	10:20	10:27	10:30	10:35	10:39	10:43	10:48	10:53	10:59	11:10
	11:15	11:20	11:27	11:30	11:35	11:39	11:43	11:48	11:53	11:59	12:10
PM	12:15	12:20	12:27	12:30	12:35	12:39	12:43	12:48	12:53	12:59	1:10
	1:15	1:20	1:27	1:30	1:35	1:39	1:43	1:48	1:53	1:59	2:10
	2:15	2:20	2:27	2:30	2:35	2:39	2:43	2:48	2:53	2:59	3:10
	3:15	3:20	3:27	3:30	3:35	3:39	3:43	3:48	3:53	3:59	4:10
	4:15	4:20	4:27	4:30	4:35	4:39	4:43	4:48	4:53	4:59	5:10
	SUNDAY										
AM	11:00	11:05	11:12	11:15	11:20	11:24	11:28	11:33	11:38	11:44	11:55
PM	12:00	12:05	12:12	12:15	12:20	12:24	12:28	12:33	12:38	12:44	12:55
	1:00	1:05	1:12	1:15	1:20	1:24	1:28	1:33	1:38	1:44	1:55
	2:00	2:05	2:12	2:15	2:20	2:24	2:28	2:33	2:38	2:44	2:55
	3:00	3:05	3:12	3:15	3:20	3:24	3:28	3:33	3:38	3:44	3:55
	4:00	4:05	4:12	4:15	4:20	4:24	4:28	4:33	4:38	4:44	4:55
	5:00	5:05	5:12	5:15	5:20	5:24	5:28	5:33	5:38	5:44	5:55

10 Gateway/VRC SAT/SUN

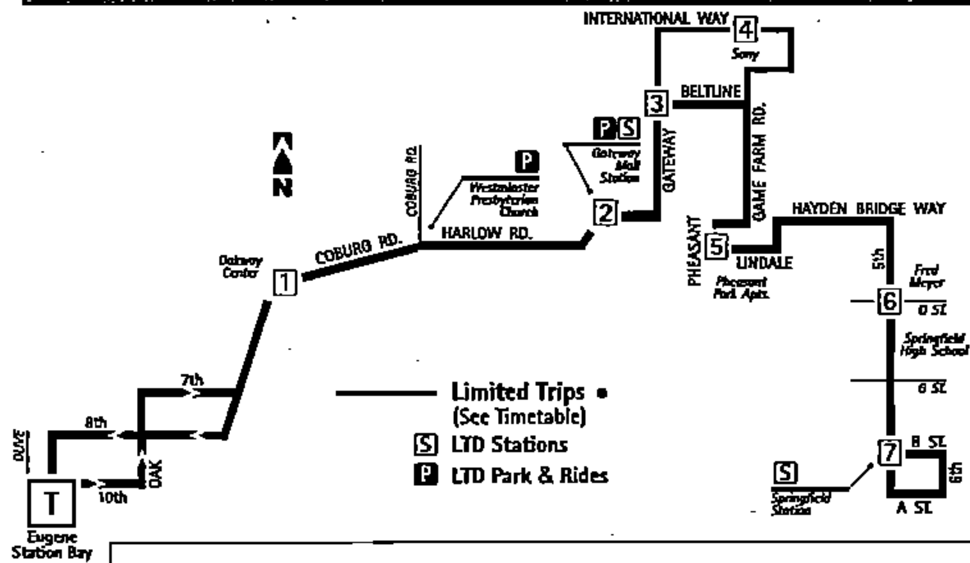
10



From: Eugene Downtown To: Gateway/VRC Name: 10 Gateway/VRC								From: Valley River Center To: Eugene Downtown Name: 10 Eugene Station		
LEAVE Eugene Station T	Coburg at Oakmont 1	Gateway Station 2	Hutton at Kruse 3	Crescent at Coburg 4	Delta Oaks Shopping Center 5	Kmart 6	ARRIVE Valley River Center 7	LEAVE Valley River Center 7	Eugene Country Club 8	ARRIVE Eugene Station
SATURDAY										
AM 10:40	10:44	10:53	10:57	11:02	11:07	11:11	11:18	11:21	11:25	11:35
11:40	11:44	11:53	11:57	12:02	12:07	12:11	12:18	12:21	12:25	12:35
PM 12:40	12:44	12:53	12:57	1:02	1:07	1:11	1:18	1:21	1:25	1:35
1:40	1:44	1:53	1:57	2:02	2:07	2:11	2:18	2:21	2:25	2:35
2:40	2:44	2:53	2:57	3:02	3:07	3:11	3:18	3:21	3:25	3:35
3:40	3:44	3:53	3:57	4:02	4:07	4:11	4:18	4:21	4:25	4:35
4:40	4:44	4:53	4:57	5:01	5:05	5:09	5:14	5:14	5:18	5:27
SUNDAY										
AM 11:00	11:04	11:13	11:17	11:22	11:27	11:31	11:38	11:41	11:45	11:55
PM 12:00	12:04	12:13	12:17	12:22	12:27	12:31	12:38	12:41	12:45	12:55
1:00	1:04	1:13	1:17	1:22	1:27	1:31	1:38	1:41	1:45	1:55
2:00	2:04	2:13	2:17	2:22	2:27	2:31	2:38	2:41	2:45	2:55
3:00	3:04	3:13	3:17	3:22	3:27	3:31	3:38	3:41	3:45	3:55
4:00	4:04	4:13	4:17	4:22	4:27	4:31	4:38	4:41	4:45	4:55
5:00	5:04	5:13	5:17	5:22	5:27	5:31	5:38	5:41	5:45	5:55

12

12 Gateway *WEEKDAYS*



"432" Eugene Downtown
13" Springfield Station via Harlow Rd. / Gateway
+021" 23 Gateway

"432" Springfield Station
13" Eugene Downtown via Gateway / Harlow Rd.
+021" 23 Eugene Station

	LEAVE Eugene Station [T]	Coburg at Oakmont [1]	ARRIVE Gateway Station [2]	LEAVE Gateway Station [2]	Gateway at Beltline [3]	SONY [4]	Lindale at Pheasant [5]	5th at "Q" [6]	ARRIVE Spfld. Station [7]		LEAVE Spfld. Station on 5th [7]	5th at "Q" [6]	Lindale at Pheasant [5]	SONY [4]	Gateway at Beltline [3]	ARRIVE Gateway Station [2]	LEAVE Gateway Station [2]	Coburg at Oakmont [1]	ARRIVE Eugene Station
WEEKDAYS																			
AM	--	--	--	--	--	--	--	--	--		5:20	5:23	5:27	--	5:30	5:38	5:38	5:44	5:55
	--	--	--	--	--	--	--	--	--		5:50	5:53	5:57	--	6:00	6:08	6:08	6:14	6:25
	--	--	--	--	--	--	--	--	--		6:20	6:23	6:27	--	6:30	6:36	6:38	6:44	6:55
	6:00	6:04	6:11	6:13	6:18	--	6:22	6:26	6:33*	●	6:38	6:41	6:45	6:50	6:53	6:58	6:58	7:04	7:15
●	6:30	6:34	6:41	6:43	6:46	6:50	6:57	7:01	7:08*	●	7:08	7:11	7:15	7:20	7:23	7:28	7:28	7:34	7:45
	--	--	--	--	--	--	--	--	--		7:24+	7:27	7:31	--	7:35	--	--	7:45	7:55
●	7:00	7:04	7:11	7:13	7:16	7:20	7:27	7:31	7:38*		7:38	7:41	7:45	--	7:48	7:54	7:58	8:04	8:15
●	7:30	7:34	7:41	7:43	7:48	7:50	7:57	8:01	8:08*		8:08	8:11	8:15	--	8:18	8:24	8:28	8:34	8:45
	8:00	8:04	8:11	8:13	8:18	--	8:22	8:28	8:33*		8:38	8:41	8:45	--	8:48	8:54	8:58	9:04	9:15
	8:30	8:34	8:41	8:43	8:46	--	8:52	8:58	9:03*		9:08	9:11	9:15	--	9:18	9:24	9:28	9:34	9:45
	9:00	9:04	9:11	9:13	9:18	--	9:22	9:28	9:33*		9:38	9:41	9:45	--	9:48	9:54	9:58	10:04	10:15
	9:30	9:34	9:41	9:43	9:46	--	9:52	9:58	10:03*		10:08	10:11	10:15	--	10:18	10:24	10:28	10:34	10:45
	10:00	10:04	10:11	10:13	10:18	--	10:22	10:28	10:33*		10:38	10:41	10:45	--	10:48	10:54	10:58	11:04	11:15
	10:30	10:34	10:41	10:43	10:48	--	10:52	10:56	11:03*		11:08	11:11	11:15	--	11:18	11:24	11:28	11:34	11:45
	11:00	11:05	11:13	11:15	11:18	--	11:25	11:30	11:38*		11:38	11:41	11:45	--	11:48	11:54	11:58	10E+2	10E13
●	11:30	11:35	11:43	11:45	11:48	11:52	11:59	10E+1	10E17	●	10E11	10E14	10E01	10E05	10E1+	10E13	10E13	10E20	10E33
PM ●	10E++	10E+3	10E11	10E13	10E18	10E00	10E07	10E11	10E20		10E21	10E24	10E31	--	10E33	1E+1	1E+3	1E10	1E03
	10E1+	10E13	10E21	10E23	10E26	--	10E33	1E++	1E1#		1E11	1E14	1E01	--	1E03	1E11	1E13	1E20	1E33
	1E++	1E+3	1E11	1E13	1E16	--	1E03	1E1+	1E2#		1E21	1E24	1E31	--	1E33	0E+1	0E+3	0E10	0E03
	1E1+	1E13	1E21	1E23	1E28	--	1E33	0E++	0E1#		0E11	0E14	0E01	--	0E03	0E11	0E13	0E20	0E33
	0E++	0E+3	0E11	0E13	0E18	--	0E03	0E1+	0E2#	●	0E21	0E24	0E31	0E35	1E++	1E+3	1E+3	1E10	1E03
	0E1+	0E13	0E21	0E23	0E28	--	0E33	1E++	1E1#		1E11	1E14	1E01	--	1E03	1E11	1E13	1E20	1E33
	--	--	--	--	--	--	--	--	--		--	--	--	--	1E16	1E22	1E23	1E30	2E+3
	1E++	1E+3	1E11	1E13	1E16	--	1E03	1E1+	1E2#		1E21	1E24	1E31	--	1E33	2E+1	2E+3	2E10	2E03
	1E0■	1E03	1E11	1E11	1E18	--	--	--	--		--	--	--	--	--	--	--	--	--
	1E1+	1E13	1E21	1E23	1E26	--	1E33	2E++	2E1#		2E11	2E14	2E01	--	2E03	2E11	2E13	2E20	2E33
	--	--	--	--	--	--	--	--	--		--	--	--	--	2E16	2E22	2E23	2E30	3E+3
	2E++	2E+3	2E11	2E13	2E18	--	2E03	2E1+	2E2#	●	2E21	2E24	2E31	2E35	3E++	3E+3	3E+3	3E10	3E03
	2E0■	2E03	2E11	2E11	2E18	--	--	--	--		--	--	--	--	--	--	--	--	--
	2E1+	2E13	2E21	2E23	2E28	--	2E33	3E++	3E1#		3E11	3E14	3E01	--	3E03	3E11	3E13	3E20	3E33
	3E++	3E+3	3E11	3E13	3E18	--	3E03	3E1+	3E2#		3E21	3E24	3E31	--	3E33	4E+1	4E+3	4E10	4E03
	3E0■	3E03	3E11	3E11	3E16	--	--	--	--		--	--	--	--	--	--	--	--	--
	3E1+	3E13	3E21	3E23	3E28	--	3E33	4E++	4E1+		4E11	4E14	4E01	--	4E03	4E11	4E13	4E20	4E33
	4E++	4E+2	4E11	4E11	4E14	--	4E00	4E04	4E11		--	--	--	--	--	--	--	--	--
	4E1+	4E12	4E21	4E21	4E22	--	4E28	4E30	4E38>		5E++	5E+1	5E+5	--	5E1+	5E14	5E18	5E02	5E13
	5E++	5E+2	5E11	5E11	5E12	--	5E16	5E00	5E06		6E++	6E+1	6E+5	--	6E1+	6E14	6E18	6E02	6E13
	5E2+	5E22	5E31	5E31	5E32	--	5E38	6E+0	6E+8>		7E++	7E+1	7E+5	--	7E1+	7E14	7E18	7E02	7E13
	6E2+	6E22	6E31	6E31	6E32	--	6E38	7E+0	7E+8>		1+E++	1+E+1	1+E+5	--	1+E1+	1+E14	1+E18	1+E02	1+E13
	7E2+	7E22	7E31	7E31	7E32	--	7E38	1+E+0	1+E+8>	●	11E++	11E+1	11E+5	11E10	11E13	11E0+	11E0+	11E04	11E10
	1+E2+	1+E22	1+E31	1+E31	1+E32	--	1+E38	11E+0	11E+8		--	--	--	--	--	--	--	--	--
●	11E2+	11E22	11E31	11E31	11E32	11E35	12:02	12:06	12:10		--	--	--	--	--	--	--	--	--

* Continues as route 85 to LCC.
+ Does not serve the Gateway Station.
# Ends at Gateway and [illegible]. Sign reads "12W Gateway to [illegible]".
> Continues as route 19 Mohawk/Q Street.

*432t Sugene 4owntown
33t Springfield Station via 7arlow Rd-, 6ateway
+021t +3 6ateway

*432t Springfield Station
33t Sugene 4owntown via 6ateway 7arlow Rd-
+021t +3 Sugene Station

	LEAVE Eogene Station 1	Colorg al Colormd 1	ARRtgO Gitr wly etto o 2	SOAgO Gitr wly etto o 2	Gitr wly k Bd Blr 3	sOVb 4	Stdlr k son Flu l 5	Stb al "O" 6	ARRtgO op lkt: etto o 7	SOAgO op lkt: etto o ou Sto 7	Sto k "b" 6	Stdl o k son Flu l 5	Gitr wly l Brl Blr 3	ARRtgO Gitr wly etto r 2	SOAgO Gitr wly etto o 2	Colora k Oktout 1	ARRtgO Duoo or etto p
	SATURDAY																
AM	--	--	--	--	--	--	--	--	--	6:48	6:51	6:55	6:58	7:04	7:08	7:14	7:25
	--	--	--	--	--	--	--	--	--	7:48	7:51	7:55	7:58	8:04	8:08	8:14	8:25
	7:30	7:34	7:41	7:43	7:46	--	7:52	7:56	8:03+	8:48	8:51	8:55	8:58	9:04	9:08	9:14	9:25
	8:30	8:34	8:41	8:43	8:46	--	8:52	8:56	9:03+	9:18	9:21	9:25	9:28	9:34	9:38	9:44	9:55
	--	--	--	--	--	--	--	--	--	9:48	9:51	9:55	9:58	10:04	10:08	10:14	10:25
	9:30	9:34	9:41	9:43	9:46	--	9:52	9:56	10:03+	10:18	10:21	10:25	10:28	10:34	10:38	10:44	10:55
	--	--	--	--	--	--	--	--	--	--	--	--	10:43#	10:48	10:53	10:59	11:10
	10:00	10:04	10:11	10:13	10:16	--	10:22	10:26	10:33+	10:48	10:51	10:55	10:58	11:04	11:08	11:14	11:25
	10:30	10:34	10:41	10:43	10:46	--	10:52	10:56	11:03+	11:18	11:21	11:25	11:28	11:34	11:38	11:44	11:55
	10:40*	10:44	10:51	10:53	10:57	--	--	--	--	--	--	--	11:43#	11:48	11:53	11:59	*+€*#
	11:00	11:04	11:11	11:13	11:16	--	11:22	11:26	11:33+	11:48	11:51	11:55	11:58	*+€#0	*+€#4	*+€*0	*+€+1
●	11:30	11:34	11:41	11:41	11:44	11:47	11:52	11:56	*+€#3+	*+€*4	*+€+*	*+€+1	*+€+4	*+€30	*+€34	*+€00	*+€11
	11:40*	11:44	11:51	11:53	11:57	--	--	--	--	--	--	--	*+€03#	*+€04	*+€13	*+€15	*€*#
PM ●	*+€##	*+€#0	*+€**	*+€**	*+€*0	*+€*3	*+€++	*+€+2	*+€33+	*+€04	*+€1*	*+€11	*+€14	*€#0	*€#4	*€*0	*€+1
	*+€3#	*+€30	*+€0*	*+€03	*+€02	--	*+€1+	*+€12	*€#3+	*€*4	*€+*	*€+1	*€+4	*€30	*€34	*€00	*€11
	*+€0#	*+€00	*+€1*	*+€13	*+€13	--	--	--	--	--	--	--	*€03#	*€04	*€13	*€15	+€*#
	*€##	*€#0	*€**	*€*3	*€*2	--	*€++	*€+2	*€33+	*€04	*€1*	*€11	*€14	+€#0	+€#4	+€*0	+€+1
	3€1+	3€12	3€23	3€21	3€24	--	3€30	3€34	0€+1+	0€36	0€03	0€03	0€06	0€12	0€16	0€22	0€33
	3€2+*	3€22	3€33	3€31	3€35	--	--	--	--	--	--	--	0€21#	0€26	0€31	0€37	1€3+
	0€++	0€+2	0€33	0€31	0€34	--	0€00	0€04	0€11+	0€28	0€33	0€33	0€36	1€+2	1€+6	1€32	1€03
	0€1+	0€12	0€23	0€21	0€24	--	0€30	0€34	1€+1+	1€36	1€03	1€03	1€06	1€12	1€16	1€22	1€33
	0€2+*	0€22	0€33	0€31	0€35	--	--	--	--	--	--	--	1€21#	1€26	1€31	1€37	2€3+
	1€++	1€+2	1€33	1€31	1€34	--	1€00	1€04	1€11+	1€26	1€33	1€33	1€36	2€+2	2€+6	2€32	2€03
	1€1+	1€12	1€23	1€21	1€24	--	1€30	1€34	2€+1+	2€36	2€03	2€03	2€06	2€12	2€16	2€22	2€33
	1€2+*	1€22	1€33	1€31	1€35	--	--	--	--	--	--	--	2€21#	2€26	2€31	2€37	3€3+
	2€++	2€+2	2€33	2€31	2€34	--	2€00	2€04	2€11+	2€26	2€33	2€33	2€38	3€+2	3€+6	3€32	3€03
	2€1+	2€12	2€23	2€21	2€24	--	2€30	2€34	3€+1+	3€36	3€03	3€03	3€06	3€12	3€18	3€22	3€33
	2€2+*	2€22	2€33	2€31	2€35	--	--	--	--	--	--	--	--	--	--	--	--
	3€++	3€+2	3€33	3€31	3€34	--	3€00	3€04	3€11+	3€26	3€33	3€33	3€36	4€+2	4€+6	4€32	4€03
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5€3+	5€34	5€05
	3€1+	3€12	3€23	3€21	3€24	--	3€30	3€34	4€+1	4€36	5€+3	5€+3	5€+6	5€32	5€36	5€02	5€13
	4€1+	4€12	4€23	4€21	4€24	--	4€30	4€34	5€+1#	5€38	6€+3	6€+3	6€+8	6€32	6€36	6€02	6€13
	5€2+	5€22	5€33	5€31	5€34	--	6€+0	6€+4	6€31#	6€31	6€34	7€++	7€+1	7€+7	7€3+	7€34	7€05
	6€3+	6€32	6€03	6€01	6€04	--	6€10	6€14	6€21	6€36	7€+3	7€+3	7€+8	7€32	7€36	7€02	7€13
	6€2+	6€22	6€33	6€31	6€34	--	7€+0	7€+4	7€31#	--	--	--	--	--	3+€33	3+€03	3+€10
	--	--	--	--	--	--	--	--	--	7€36	3+€+3	3+€+3	3+€+6	3+€32	3+€36	3+€02	3+€13
	7€1+	7€12	7€23	7€23	7€22	--	7€3+	7€32	3+€++	--	--	--	--	--	--	--	--
	7€2+	7€22	7€33	7€31	7€34	--	3+€+0	3+€+4	3+€31#	3+€38	33€+3	33€+3	33€+6	33€32	33€36	33€02	33€13
	3+€2+	3+€22	3+€33	3+€33	3+€32	--	3+€36	33€+0	33€+8	--	--	--	--	--	--	--	--
●	33€2+	33€22	33€33	33€33	33€32	33€35	12:02	12:08	12:10	--	--	--	--	--	--	--	--
	SUNDAY																
AM	--	--	--	--	--	--	--	--	--	7:48	7:51	7:55	7:58	8:04	8:08	8:14	8:25
	--	--	--	--	--	--	--	--	--	8:48	8:51	8:55	8:58	9:04	9:08	9:14	9:25
	8:30	8:34	8:41	8:43	8:46	--	8:52	8:56	9:03+	9:48	9:51	9:55	9:58	10:04	10:08	10:14	10:25
	9:30	9:34	9:41	9:43	9:46	--	9:52	9:56	10:03+	10:48	10:51	10:55	10:58	11:04	11:08	11:14	11:25
	--	--	--	--	--	--	--	--	--	--	--	--	11:28#	11:33	11:38	11:44	11:55
	10:30	10:34	10:41	10:43	10:48	--	10:52	10:56	11:03+	11:48	11:51	11:55	11:58	12:04	12:08	12:14	12:25
	11:00*	11:04	11:11	11:13	11:17	--	--	--	--	--	--	--	12:28#	12:33	12:38	12:44	12:55
	11:30	11:34	11:41	11:43	11:46	--	11:52	11:56	12:03+	12:48	12:51	12:55	12:58	1:04	1:08	1:14	1:25
MA	12:00*	12:04	12:11	12:13	12:17	3 3	3 3	3 3	3 3	3 3	3 3	3 3	1:28#	1:33	1:38	1:44	1:55
	12:30	12:34	12:41	12:43	12:48	3 3	12:52	12:56	1:03+	1:48	1:51	1:55	1:58	2:04	2:08	2:14	2:25
	1:00*	1:04	1:11	1:13	1:17	3 3	3 3	3 3	3 3	3 3	3 3	3 3	2:28#	2:33	2:38	2:44	2:55
	1:30	1:34	1:41	1:43	1:46	3 3	1:52	1:56	2:03+	2:48	2:51	2:55	2:58	3:04	3:08	3:14	3:25
	2:00*	2:04	2:11	2:13	2:17	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3:28#	3:33	3:38	3:44	3:55
	2:30	2:34	2:41	2:43	2:48	3 3	2:52	2:56	3:03+	3:48	3:51	3:55	3:58	4:04	4:08	4:14	4:25
	3:00*	3:04	3:11	3:13	3:17	3 3	3 3	3 3	3 3	3 3	3 3	3 3	4:28#	4:33	4:38	4:44	4:55
	3:30	3:34	3:41	3:43	3:46	3 3	3:52	3:56	4:03+	4:48	4:51	4:55	4:58	5:04	5:08	5:14	5:25
	4:00*	4:04	4:11	4:13	4:17	3 3	3 3	3 3	3 3	3 3	3 3	3 3	5:28#	5:33	5:38	5:44	5:55
	4:30	4:34	4:41	4:43	4:46	3 3	4:52	4:56	5:03+	5:48	5:51	5:55	5:58	6:04	6:08	6:14	6:25
	5:00*	5:04	5:11	5:13	5:17	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 3	33
	5:30	5:34	5:41	5:43	5:46	3 3	5:52	5:56	6:03+	6:48	6:51	6:55	6:58	7:04	7:08	7:14	7:25
	6:30	6:34	6:41	6:43	6:46	3 3	6:52	6:56	7:03+	7:48	7:51	7:55	7:58	8:04	8:08	8:14	8:25
	7:30	7:34	7:41	7:41	7:44	3 3	7:50	7:54	8:00	3 3	3 3	3 3	3 3	3 3	3 3	3 3	33
	8:30	8:34	8:41	8:41	8:44	3 3	8:50	8:54	9:00	3 3	3 3	3 3	3 3	3 3	3 3	3 3	33

* Bo" "oo rr b" 1A Gitr wly;
\+ Coutloo " l" 1E oloo rr r alck
\# Bo" "oo rr b" 9 Ooor or rtlbot

18 19

18 Mohawk/Hayden Bridge *WEEKDAYS*

19 Mohawk/Q Street *WEEKDAYS*

From: Springfield Downtown
To: Mohawk Marketplace. Kmart. Gateway Station
Name: Te MohawkŀHayden rridge. or Trr MohawkŀQ" Str

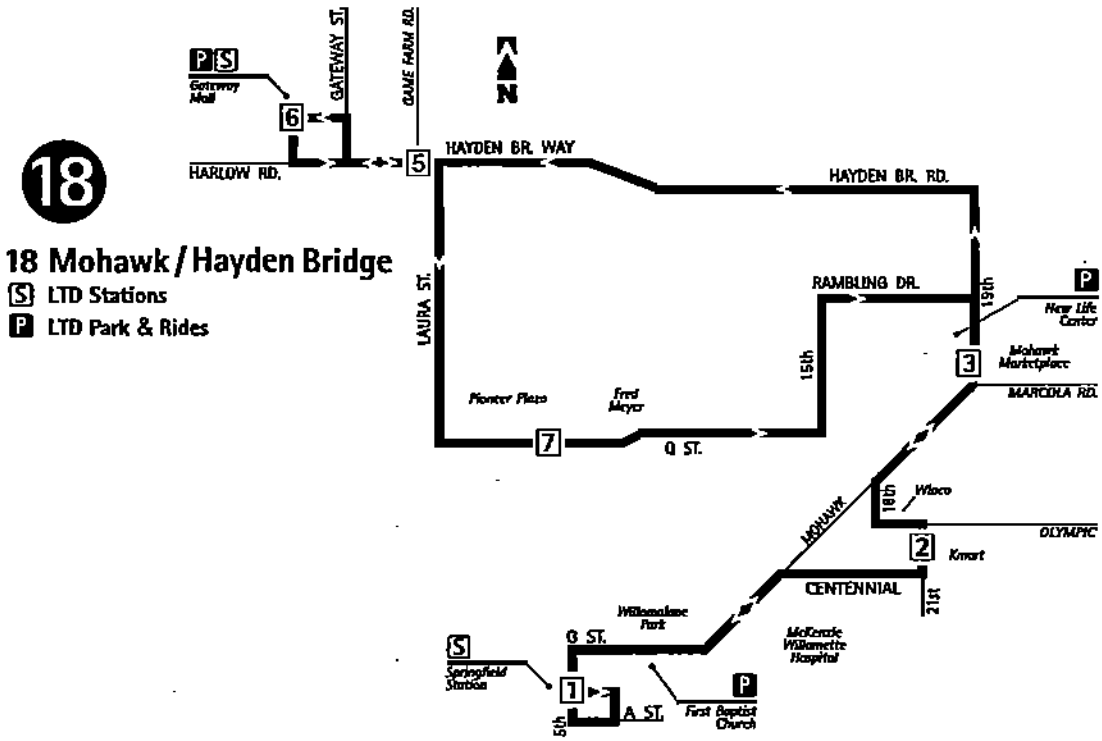
From: Mohawk Marketplace. Kmart. Gateway Station
To: Springfield Downtown
Name: Te MohawkŀHayden rridge. or Trr MohawkŀQ" St

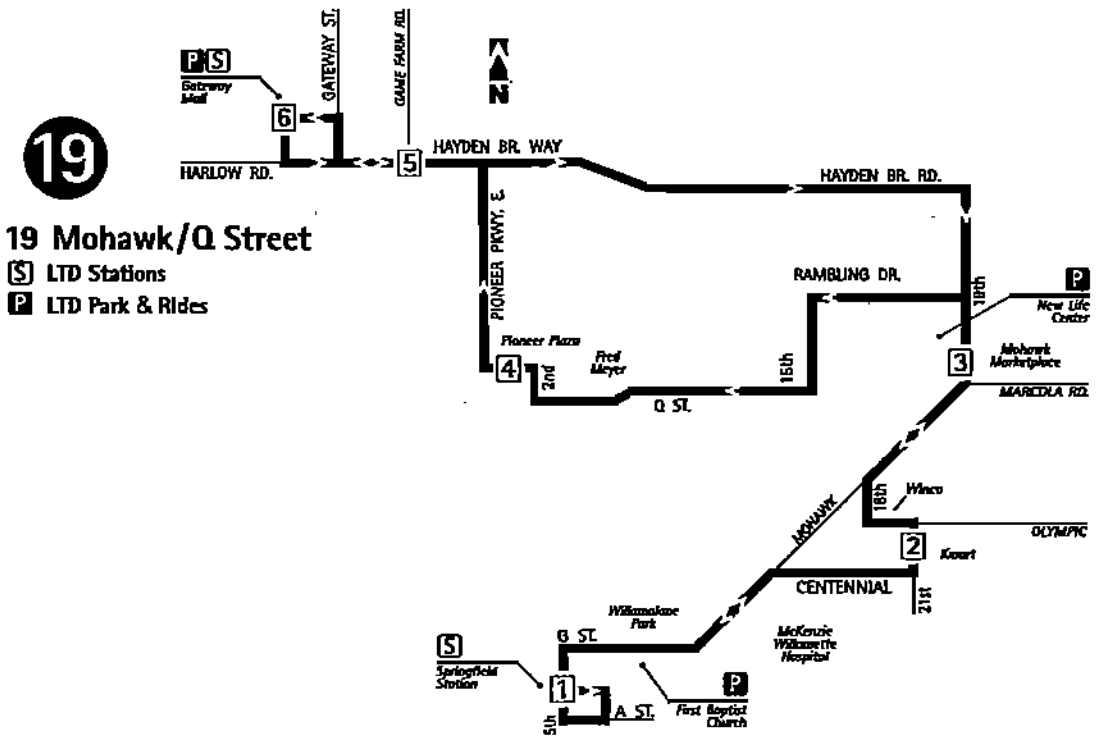
	ROUTE	LEAVE Springfield Station on "B" St. [1]	Kmart [2]	Mohawk Mktpl. on 19th [3]	Pioneer Plaza [4]	Harlow at Game Farm [5]	ARRIVE Gateway Station [6]	LEAVE Gateway Station [6]	Harlow at Game Farm [5]	"e" Strrt rrl Arp [7]	aoyrr w" a"tpf. on 1Ety [3]	S"rrrt [2]	Gggl IE Sprlnwfirlp Strtlas [1]
		WEEKDAYS											
AK	18	Dł eT·	Dł e7	Dł mo	ʌ ʌ	ʌ ʌ	ʌ ʌ	ʌ ʌ	ʌ ʌ	ʌ ʌ	Dł mo	Dł m7	Dł oĿF
	18	Dł rT·	Dł r7	7ł To	ʌ ʌ	ʌ ʌ	ʌ ʌ	ʌ ʌ	ʌ ʌ	ʌ ʌ	7ł To	7ł T7	7ł aĿF
	18	ʌ ʌ	ʌ ʌ	ʌ ʌ	ʌ ʌ	ʌ ʌ	ʌ ʌ	ʌ ʌ	ʌ ʌ	7ł eG	7ł mo	7ł m7	7ł oĿF
	18	7ł oT	7ł o7	7ł ra	ʌ ʌ	7ł rr	7ł rG	8ł Ta	8ł To	8ł T7	8ł ao	8ł a7	8ł eD
	19	8ł aT	8ł a7	8ł ea	8ł eD	8ł eG	8ł mm	8ł mr	8ł m8	ʌ ʌ	8ł oo	8ł o7	8ł rD
	18	8ł oT	8ł o7	8ł ra	ʌ ʌ	8ł rr	8ł rG	Gł Ta	Gł To	Gł T7	Gł ao	Gł a7	Gł eD
	19	Gł aT	Gł a7	Gł ea	Gł eD	Gł eG	Gł mm	Gł mr	Gł m8	ʌ ʌ	Gł oo	Gł o7	Gł rD
	18	Gł oT	Gł o7	Gł ra	ʌ ʌ	Gł rr	Gł rG	aTł Ta	aTł To	aTł T7	aTł ao	aTł a7	aTł eD
	19	aTł aT	aTł a7	aTł ea	aTł eD	aTł eG	aTł mm	aTł mr	aTł m8	ʌ ʌ	aTł oo	aTł o7	aTł rD
	18	aTł oT	aTł o7	aTł ra	ʌ ʌ	aTł rr	aTł rG	aał Ta	aał To	aał T7	aał ao	aał a7	aał rD
	19	aał aT	aał a7	aał ea	aał eD	aał eG	aał mm	aał mr	aał m8	ʌ ʌ	aał oo	aał o7	aał rD
	18	aał mm	aał oa	aał oD	ʌ ʌ	aał rT	aał rr	aał r7	TaꞒ NN	TaꞒ Ne	TaꞒ TT	TaꞒ Tm	TaꞒ aD
KM	19	TaꞒ Ne	TaꞒ TT	TaꞒ Tr	TaꞒ aa	TaꞒ ao	TaꞒ eN	TaꞒ ea	TaꞒ eo	꜔ ꜔	TaꞒ mT	TaꞒ mm	TaꞒ oD
	18	TaꞒ ee	TaꞒ mT	TaꞒ mr	꜔ ꜔	TaꞒ oN	TaꞒ oo	TaꞒ oD	TꞒ NN	TꞒ Ne	TꞒ TT	TꞒ Tm	TꞒ aD
	19	TꞒ Ne	TꞒ TT	TꞒ Tr	TꞒ aa	TꞒ ao	TꞒ eN	TꞒ ea	TꞒ eo	꜔ ꜔	TꞒ mT	TꞒ mm	TꞒ oD
	18	TꞒ ee	TꞒ mT	TꞒ mr	꜔ ꜔	TꞒ oN	TꞒ oo	TꞒ oD	aꞒ NN	aꞒ Ne	aꞒ TT	aꞒ Tm	aꞒ aD
	19	aꞒ Ne	aꞒ TT	aꞒ Tr	aꞒ aa	aꞒ ao	aꞒ eN	aꞒ ea	aꞒ eo	꜔ ꜔	aꞒ mT	aꞒ mm	aꞒ oD
	18	aꞒ ee	aꞒ mT	aꞒ mr	꜔ ꜔	aꞒ oN	aꞒ oo	aꞒ oD	eꞒ NN	eꞒ Ne	eꞒ TT	eꞒ Tm	eꞒ aD
	19	eꞒ Ne	eꞒ TT	eꞒ Tr	eꞒ aa	eꞒ ao	eꞒ eN	eꞒ ea	eꞒ eo	꜔ ꜔	eꞒ mT	eꞒ mm	eꞒ oD
	18	eꞒ ee	eꞒ mT	eꞒ mr	꜔ ꜔	eꞒ oN	eꞒ oo	eꞒ oD	mꞒ NN	mꞒ Ne	mꞒ TT	mꞒ Tm	mꞒ aD
	19	mꞒ Ne	mꞒ TT	mꞒ Tr	mꞒ aa	mꞒ ao	mꞒ eN	mꞒ ea	mꞒ eo	꜔ ꜔	mꞒ mT	mꞒ mm	mꞒ oD
	18	mꞒ ee	mꞒ mT	mꞒ mr	꜔ ꜔	mꞒ oN	mꞒ oo	mꞒ oD	oꞒ NN	oꞒ Ne	oꞒ TT	oꞒ Tm	oꞒ aD
	19	oꞒ Ne	oꞒ TT	oꞒ Tr	oꞒ aa	oꞒ ao	oꞒ eN	oꞒ ea	oꞒ eo	꜔ ꜔	oꞒ mT	oꞒ mm	oꞒ oD
	18	oꞒ ee	oꞒ mT	oꞒ mr	꜔ ꜔	oꞒ oN	oꞒ oo	oꞒ oD	rꞒ NN	rꞒ Ne	rꞒ TT	rꞒ Tm	rꞒ aD
	19	rꞒ TT	rꞒ T8	rꞒ aa	rꞒ aD	rꞒ eN	rꞒ em	rꞒ eo	rꞒ e8	꜔ ꜔	rꞒ me	rꞒ mr	rꞒ oo
	19	DꞒ Te	DꞒ T8	DꞒ aaH	DꞒ ar	DꞒ a8	DꞒ eo	DꞒ eo	DꞒ e8	꜔ ꜔	DꞒ me	DꞒ mr	DꞒ oo
	19	8Ꞓ Te	8Ꞓ T8	8Ꞓ aaH	8Ꞓ ar	8Ꞓ a8	8Ꞓ eo	8Ꞓ eo	8Ꞓ e8	꜔ ꜔	8Ꞓ me	8Ꞓ mr	8Ꞓ oo
	19	8Ꞓ Te	8Ꞓ T8	8Ꞓ aaH	8Ꞓ ar	8Ꞓ a8	8Ꞓ eo	8Ꞓ eo	8Ꞓ e8	꜔ ꜔	8Ꞓ me	8Ꞓ mr	8Ꞓ oo
	19	TNꞒ Te:	TNꞒ T8	TNꞒ aaH	TNꞒ ar	TNꞒ a8.	TNꞒ eo	TNꞒ eo	TNꞒ e8	꜔ ꜔	TNꞒ me	TNꞒ mr	TNꞒ oo

Kors not sr rvr Grrtwrry arr ŀf
\+ lontinurs rr s tyr #11 Euwmr Strrtion.
\# Kors not sr rvr grr"nłlnw Krlvr or 1Bty Strrt .
F Srr vrs tyr nus stop on e Strrt, wrst ol 1Ety Strrt, lnstrrp ol aoyrr w" arr r"rlpł rr or .

18 Mohawk/Hayden Bridge MAP

19 Mohawk/Q Street MAP





79 UO/Gateway — WEEKDAYS A.M.

79

SERVES UO

See next page for P.M. schedule and map. →

From: Gateway at Beltline
To: UO Station via Gateway Station
Name: eo UO

From: UO Station
To: Gateway at Beltline
Name: eo Gateway

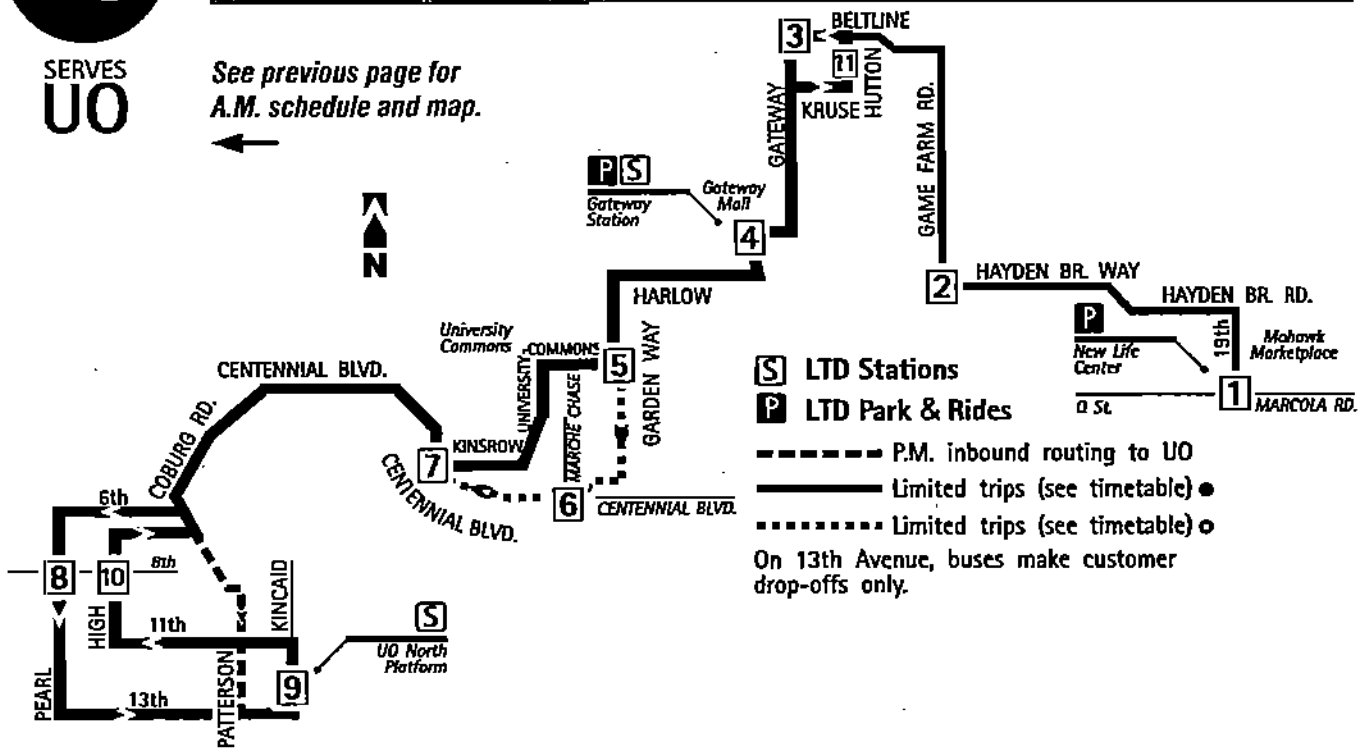
	LEAVE 19th at Marcola Road [1]	Game Farm at Harlow [2]	Gateway at Beltline [3]	Gateway Station [4]	University Commons at Garden Way [5]	Centennial at Marche Chase [6]	Centennial at Kinsrow [7]	Pearl at 8th [8]	ARRIVE UO Sta. Kincaid at 12th [9]	LEAVE UO Sta. Kincaid at 12th [9]	High at 10th [10]	Centennial at Kinsrow [7]	University Commons at Garden Way [5]	Centennial at Marche Chase [6]	Gateway Station [4]	Hutton at Kruse [11]
	WEEKDAYS A.M.															
AM	●6:17	6:22	6:25	6:29	6:32	--	6:35	6:40	6:49	--	--	--	--	--	--	--
	--	--	--	--	6:59*	--	7:02	--	7:14	--	--	--	--	--	--	--
	o --	--	--	--	--	7:28*	7:29	--	7:41	--	--	--	--	--	--	--
	--	--	--	--	7:29*	--	7:32	--	7:44	--	--	--	--	--	--	--
	●7:17	7:22	7:25	7:29	7:32	--	7:35	7:40	7:49	--	--	--	--	--	--	--
	o --	--	--	--	--	7:58*	7:59	--	8:11	--	--	--	--	--	--	--
	--	--	--	--	7:59*	--	8:02	--	8:14	--	--	--	--	--	--	--
	--	--	7:55	7:59	8:02	--	8:05	8:10	8:19	--	--	--	--	--	--	--
	--	--	8:10	8:14	8:17	--	8:20	8:25	8:34	--	--	--	--	--	--	--
	o --	--	--	--	--	8:28*	8:29	--	8:41	--	--	--	--	--	--	--
	--	--	--	--	8:29*	--	8:32	--	8:44	--	--	--	--	--	--	--
	--	--	8:25	8:29	8:32	--	8:35	8:40	8:49	--	--	--	--	--	--	--
	--	--	8:40	8:44	8:47	--	8:50	8:55	9:04	--	--	--	--	--	--	--
	o --	--	--	--	--	8:58*	8:59	--	9:11	9:11	--	--	9:23	--	--	--
	--	--	--	--	8:59*	--	9:02	--	9:14	--	--	--	--	--	--	--
	--	--	8:55	8:59	9:02	--	9:05	9:10	9:19	--	--	--	--	--	--	--
	--	--	9:10	9:14	9:17	--	9:20	9:25	9:34	--	--	--	--	--	--	--
	o --	--	--	--	--	9:28*	9:29	--	9:41	--	--	--	--	--	--	--
	--	--	--	--	9:29*	--	9:32	--	9:44	--	--	--	--	--	--	--
	--	--	9:25	9:29	9:32	--	9:35	9:40	9:49	--	--	--	--	--	--	--
	--	--	--	--	9:59*	--	10:02	--	10:14	10:14	--	--	10:23	--	--	--
	--	--	9:55	9:59	10:02	--	10:05	10:10	10:19	--	--	--	--	--	--	--
	--	--	--	--	10:29*	--	10:32	--	10:44	--	--	--	--	--	--	--
	--	--	10:25	10:29	10:32	--	10:35	10:40	10:49	11:05	11:09	11:14	11:17	--	11:20	11:24
	--	--	10:55	10:59	11:02	--	11:05	11:10	11:19	11:35	11:39	11:44	11:47	--	11:50	11:54
	--	--	11:25	11:29	11:32	--	11:35	--	11:49	--	--	--	--	--	--	--
	--	--	11:55	11:59	12:02	--	12:05	--	12:19	--	--	--	--	--	--	--

* Express service between Kinsrow and University Station. Bus sign reads "79X Express." Does not operate during UO holidays and summer.

79 UO/Gateway WEEKDAYS P.M.

SERVES UO

See previous page for A.M. schedule and map.



From: Gateway at Beltline
To: UO Station via Gateway Station
Name: eo UO

From: UO Station
To: Gateway at Beltline
Name: eo Gateway

	Gateway at Beltline [3]	Gateway Station [4]	University Commons at Garden Way [5]	Centennial at Kinsrow [7]	Pearl at 6th [8]	ARRIVE UO Sta. Kincaid at 12th [9]	LEAVE UO Sta. Kincaid at 12th [9]	High at 10th [10]	Centennial at Kinsrow [7]	University Commons at Garden Way [5]	Centennial at Marche Chase [6]	Gateway Station [4]	Hutton at Kruse [11]	Game Farm at Harlow [2]	ARRIVE 19th at "Q" [1]
	WEEKDAYS P.M.														
PM	--	--	--	--	--	--	12:05	12:09	12:14	12:17	--	12:20	12:24	--	--
	--	--	--	--	--	--	12:35	12:39	12:44	12:47	--	12:50	12:54	--	--
	12:55	12:59	1:02	1:05	--	1:19	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	o 1:03 *	--	1:12	1:15	1:17	--	--	--	--
	--	--	--	--	--	--	1:05	1:09	1:14	1:17	--	1:20	1:24	--	--
	--	--	--	--	--	--	1:35	1:39	1:44	1:47	--	1:50	1:54	--	--
	1:55	1:59	2:02	2:05	--	2:19	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	o 2:03 *	--	2:12	2:15	2:17	--	--	--	--
	--	--	--	--	--	--	2:05	2:09	2:14	2:17	--	2:20	2:24	--	--
	--	--	--	--	--	--	2:35	2:39	2:44	2:47	--	2:50	2:54	--	--
	2:55	2:59	3:02	3:05	--	3:19	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	o 3:03 *	--	3:12	3:15	3:17	--	--	--	--
	--	--	--	--	--	--	3:05	3:09	3:14	3:17	--	3:20	3:24	--	--
	--	--	--	--	--	--	o 3:33 *	--	3:42	3:45	3:47	--	--	--	--
	3:25	3:29	3:32	3:35	--	3:49	3:35	3:39	3:44	3:47	--	3:50	3:54	--	--
	--	--	--	--	--	--	o 4:03 *	--	4:12	4:15	4:17	--	--	--	--
	4:25	4:29	4:32	4:35	--	4:49	4:05	4:09	4:14	4:17	--	4:20	4:24	--	--
	--	--	--	--	--	--	● 4:35	4:39	4:44	4:47	--	4:50	4:54	4:57	5:05
	--	--	--	--	--	--	4:57	5:01	5:06	5:09	--	5:12	5:17	--	--
	--	--	--	--	--	--	o 5:03 *	--	5:12	5:15	5:17	--	--	--	--
	--	--	--	--	--	--	5:11	5:15	5:20	5:23	--	5:26	5:31	--	--
	5:35	5:39	5:42	5:45	--	5:59	● 5:35	5:39	5:44	5:47	--	5:50	5:54	5:57	6:05
	--	--	--	--	--	--	o 6:13	--	6:22	6:25	6:27	--	--	--	--

* Express service between Kinsrow Avenue and University Station. Bus sign reads "79X Express." Does not operate during UO holidays and summer.

APPENDIX E

EIS Traffic Data

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/ Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: No-build

PRINTING DATE: Feb 1, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	AVERAGE DAY TRKS	AVERAGE DAY SP	PEAK HOUR VOL	PEAK HOUR AUTO	PEAK HOUR MTR	PEAK HOUR HTR	PEAK HOUR SP	AVERAGE HOUR VOL	AVERAGE HOUR TRKS	AVERAGE HOUR SP	PEAK TRUCK HOUR VOL	PEAK TRUCK HOUR AUTO	PEAK TRUCK HOUR MTR	PEAK TRUCK HOUR HTR	PEAK TRUCK HOUR SP
Game Farm Road N																		
001	0.25	2000	9400	357	40	820	805	12	3	40	660	25	40	620	569	34	17	40
001	0.25	2005	10900	414	40	940	922	14	4	40	760	29	40	710	651	39	20	40
001	0.25	2025	18600	707	40	1620	1590	24	6	40	1310	50	40	1220	1119	67	34	40
Game Farm Road N																		
002	0.14	2000	13800	1021	40	1200	1157	25	18	40	960	55	40	870	756	84	30	40
002	0.14	2005	15700	1162	40	1360	1311	29	20	40	1090	62	40	990	861	95	34	40
002	0.14	2025	25600	1894	40	2230	2150	47	33	40	1790	102	40	1620	1409	156	55	40
Gateway Street																		
003	0.12	2000	13400	804	40	1160	1107	31	22	40	1000	69	40	900	780	86	34	40
003	0.12	2005	15200	912	40	1320	1259	36	25	40	1140	78	40	1020	884	97	39	40
003	0.12	2025	23800	1428	40	2070	1975	56	39	40	1780	123	40	1600	1387	152	61	40
Gateway Street																		
004	0.11	2000	26200	1015	35	2450	2374	59	17	35	2160	87	35	2060	1940	87	33	35
004	0.11	2005	31700	1141	35	2760	2675	66	19	35	2440	97	35	2320	2186	97	37	35
004	0.11	2025	33000	1188	35	2880	2791	69	20	35	2540	102	35	2420	2279	102	39	35
Gateway Street																		
005	0.19	2000	27200	979	35	2370	2297	59	14	35	2090	79	35	1650	1550	74	26	35
005	0.19	2005	30700	1105	35	2670	2587	67	16	35	2350	89	35	1860	1746	84	30	35
005	0.19	2025	31600	1138	35	2750	2664	69	17	35	2420	92	35	1920	1803	86	31	35
Gateway Street																		
006	0.25	2000	24000	288	35	2080	2070	8	2	35	1890	19	35	1870	1775	65	30	35
006	0.25	2005	27200	326	35	2360	2349	9	2	35	2140	21	35	2130	2021	75	34	35
006	0.25	2025	27500	330	35	2390	2378	10	2	35	2170	22	35	2150	2041	75	34	35
Parking Lot																		
007	0.03	2000	900	119	15	80	80	0	0	15	70	2	15	60	53	7	0	15
007	0.03	2005	1000	132	15	80	80	0	0	15	70	2	15	60	53	7	0	15
007	0.03	2025	1300	172	15	110	110	0	0	15	100	3	15	80	70	10	0	15
International Way																		
008	0.25	2000	4900	500	40	430	405	12	13	40	300	27	40	290	234	39	17	40

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ANALYST: Peter Schuyteme
CHECKED BY:
FILE: BELTNB.MDB

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/ Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: No-build

PRINTING DATE: Feb 1, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	TRKS	SP	PEAK HOUR VOL	AUTO	MTR	HTR	SP	AVERAGE HOUR VOL	TRKS	SP	PEAK TRUCK HOUR VOL	AUTO	MTR	HTR	SP
008	0.25	2005	5600	571	40	480	451	14	15	40	330	30	40	330	267	44	19	40
008	0.25	2025	8900	908	40	770	724	22	24	40	540	48	40	530	429	70	31	40
Game Farm Road W																		
009	0.05	2000	1000	99	25	90	78	12	0	25	80	10	25	40	24	14	2	25
009	0.05	2005	1000	99	25	90	78	12	0	25	80	10	25	40	24	14	2	25
009	0.05	2025	1300	129	25	120	105	15	0	25	110	13	25	50	30	17	3	25
Game Farm Road E																		
010	0.42	2000	4700	183	35	410	401	8	1	35	360	15	35	180	152	26	2	35
010	0.42	2005	5400	211	35	470	460	9	1	35	410	17	35	210	177	31	2	35
010	0.42	2025	12200	476	31	1020	997	20	3	18	890	37	27	460	387	68	5	35
Game Farm Road S																		
011	0.11	2000	5100	204	35	440	428	8	4	35	320	14	35	240	218	16	6	35
011	0.11	2005	6000	240	35	520	505	10	5	35	380	17	35	290	264	19	7	35
011	0.11	2025	13200	528	35	1140	1107	22	11	35	820	37	35	630	573	41	16	35
Game Farm Road S																		
012	0.25	2000	13400	469	35	1160	1124	31	5	35	830	34	35	680	633	39	8	35
012	0.25	2005	14800	518	35	1290	1250	35	5	35	930	38	35	750	698	43	9	35
012	0.25	2025	0	0	35	0	0	0	0	35	0	0	35	0	0	0	0	35
Kruse Way																		
013	0.11	2000	3300	142	25	290	283	4	3	25	290	15	25	270	244	20	6	25
013	0.11	2005	3700	159	25	320	312	4	4	25	320	17	25	300	271	22	7	25
013	0.11	2025	4900	211	25	420	409	6	5	25	420	22	25	400	362	29	9	25
Hutton Street																		
014	0.11	2000	2400	96	25	210	204	5	1	25	160	6	25	150	135	15	0	25
014	0.11	2005	2600	104	25	220	214	5	1	25	170	6	25	150	135	15	0	25
014	0.11	2025	4000	160	25	340	331	7	2	25	270	9	25	230	208	22	0	25
Gateway Loop																		
015	0.17	2000	5900	342	25	520	490	0	30	25	480	26	25	350	310	25	15	25
015	0.17	2005	6300	365	25	540	509	0	31	25	500	27	25	360	319	28	15	25
015	0.17	2025	8200	476	25	710	669	0	41	25	660	36	25	480	425	34	21	25

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Beltline Hwy EB																		
016	0.64	2000	27900	2427	55	2420	2260	70	90	55	2040	192	55	1960	1684	135	141	55
016	0.64	2005	30300	2636	55	2640	2465	77	98	54	2230	209	55	2130	1830	147	153	55
016	0.64	2025	41800	3637	54	3640	3399	106	135	34	3070	288	52	2940	2525	203	212	53
Beltline Hwy EB																		
017	0.21	2000	16100	1159	55	1400	1330	41	29	55	1180	90	55	1080	975	67	38	55
017	0.21	2005	17900	1289	55	1560	1482	45	33	55	1320	100	55	1200	1084	74	42	55
017	0.21	2025	28500	2052	55	2480	2356	72	52	55	2100	159	55	1910	1725	118	67	55
Beltline Hwy EB																		
018	0.05	2000	17800	1210	55	1540	1464	45	31	55	1300	95	55	1180	1060	80	40	55
018	0.05	2005	19900	1353	55	1740	1655	50	35	55	1470	107	55	1330	1195	90	45	55
018	0.05	2025	33300	2264	55	2900	2758	84	58	55	2450	179	55	2220	1994	151	75	55
Beltline Hwy EB																		
019	0.13	2000	13500	526	55	1170	1124	32	14	55	970	45	55	860	810	42	8	55
019	0.13	2005	15300	597	55	1340	1288	36	16	55	1110	51	55	980	923	48	9	55
019	0.13	2025	26200	1022	55	2280	2191	62	27	55	1890	87	55	1680	1583	82	15	55
Beltline Hwy EB																		
020	0.08	2000	19000	779	45	1650	1593	40	17	45	1460	67	45	1210	1126	56	28	45
020	0.08	2005	21400	877	45	1860	1796	45	19	45	1640	75	45	1360	1266	63	31	45
020	0.08	2025	35000	1435	45	3050	2946	73	31	45	2690	124	45	2240	2085	103	52	45
Beltline Road																		
021	0.11	2000	10700	407	45	930	903	21	6	45	710	29	45	620	578	38	4	45
021	0.11	2005	11600	441	45	1010	981	23	6	45	770	32	45	680	634	42	4	45
021	0.11	2025	33400	1269	45	2910	2826	67	17	45	2210	91	45	1960	1826	122	12	45
Beltline Road																		
022	0.00	2000	10100	354	45	880	849	24	7	45	660	27	45	570	539	29	2	45
022	0.00	2005	11000	385	45	960	926	26	8	45	720	29	45	620	586	32	2	45
022	0.00	2025	32600	1141	45	2840	2740	77	23	45	2140	86	45	1840	1739	94	7	45
Pioneer Parkway Extension																		
023	0.25	2000	0	0	45	0	0	0	0	45	0	0	45	0	0	0	0	45

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			AVERAGE DAY			PEAK HOUR					AVERAGE HOUR			PEAK TRUCK HOUR				
SECT	DIST	YEAR	VOL	TRKS	SP	VOL	AUTO	MTR	HTR	SP	VOL	TRKS	SP	VOL	AUTO	MTR	HTR	SP
023	0.25	2005	0	0	45	0	0	0	0	45	0	0	45	0	0	0	0	45
023	0.25	2025	34400	1204	45	2990	2897	81	12	45	2150	88	45	1750	1629	100	21	45
Beltline Hwy WB																		
024	0.04	2000	15600	640	45	1360	1313	33	14	45	1130	52	45	920	840	61	19	45
024	0.04	2005	17500	718	45	1520	1469	36	15	45	1260	58	45	1030	940	68	22	45
024	0.04	2025	27200	1115	45	2360	2279	57	24	45	1960	90	45	1600	1460	106	34	45
Beltline Hwy WB																		
025	0.18	2000	13400	523	55	1170	1125	30	15	55	970	45	55	770	706	52	12	55
025	0.18	2005	14900	581	55	1300	1249	34	17	55	1080	50	55	860	788	58	14	55
025	0.18	2025	22200	866	55	1940	1865	50	25	55	1610	74	55	1280	1173	87	20	55
Beltline Hwy WB																		
026	0.02	2000	26500	1881	55	2310	2165	60	85	55	1920	156	55	1480	1279	93	108	55
026	0.02	2005	28600	2031	55	2480	2324	64	92	55	2070	167	55	1580	1365	100	115	55
026	0.02	2025	36700	2606	55	3200	2999	83	118	55	2670	216	55	2040	1762	129	149	55
Beltline Hwy WB																		
027	0.29	2000	22100	1724	55	1920	1789	50	81	55	1600	139	55	1190	1009	79	102	55
027	0.29	2005	23600	1841	55	2050	1911	53	86	55	1710	149	55	1270	1077	84	109	55
027	0.29	2025	30000	2340	55	2610	2432	68	110	54	2180	189	55	1620	1374	107	139	55
Beltline Hwy WB																		
028	0.62	2000	26800	2305	55	2330	2165	65	100	55	1960	185	55	1440	1194	108	138	55
028	0.62	2005	28700	2468	55	2500	2323	70	107	55	2110	198	55	1550	1285	116	149	55
028	0.62	2025	37500	3225	54	3260	3029	91	140	50	2750	258	54	2020	1675	151	194	55
I-5 Southbound																		
029	0.50	2000	19300	3648	55	1680	1364	82	234	55	1540	342	55	1440	1021	143	276	55
029	0.50	2005	22000	4158	55	1920	1559	94	267	55	1760	391	55	1650	1170	163	317	55
029	0.50	2025	37500	7088	54	3260	2647	160	453	47	2990	664	52	2800	1985	277	538	53
I-5 Southbound																		
030	0.28	2000	14600	3051	55	1270	990	65	215	55	1170	270	55	1190	835	113	242	55
030	0.28	2005	16900	3532	55	1470	1147	75	248	55	1360	313	55	1380	969	131	280	55
030	0.28	2025	30000	6270	55	2600	2028	133	439	55	2410	553	55	2440	1713	232	495	55

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I-5 Southbound																		
031	0.02	2000	19000	3211	55	1660	1364	75	221	55	1500	286	55	1470	1071	154	245	55
031	0.02	2005	21900	3701	55	1900	1562	85	253	55	1720	328	55	1690	1231	177	282	55
031	0.02	2025	36700	6202	55	3190	2622	144	424	55	2880	550	55	2830	2060	297	473	55
I-5 Southbound																		
032	0.26	2000	17300	3149	55	1510	1221	69	220	55	1380	279	55	1370	1025	105	240	55
032	0.26	2005	19900	3622	55	1750	1415	80	255	55	1590	324	55	1580	1182	122	276	55
032	0.26	2025	31900	5806	55	2770	2239	127	404	55	2520	512	55	2500	1871	192	437	55
I-5 Southbound																		
033	0.93	2000	29100	4423	55	2540	2159	99	282	55	2240	381	55	2250	1728	173	349	55
033	0.93	2005	32300	4910	55	2800	2380	109	311	55	2470	420	55	2480	1905	191	384	55
033	0.93	2025	45200	6870	55	3920	3332	153	435	54	3460	588	55	3470	2665	267	538	55
I-5 Northbound																		
034	0.68	2000	34400	4266	55	3000	2628	78	294	55	2460	337	55	2000	1584	108	308	55
034	0.68	2005	37800	4687	55	3290	2882	86	322	55	2690	369	55	2200	1742	119	339	55
034	0.68	2025	52400	6498	55	4560	3994	119	447	52	3730	512	55	3050	2415	165	470	55
I-5 Northbound C-D Road																		
035	0.17	2000	18600	1600	47	1620	1490	41	89	10	1350	130	39	1050	888	55	107	54
035	0.17	2005	19800	1703	42	1720	1582	43	95	10	1440	138	29	1120	948	58	114	53
035	0.17	2025	23300	2004	32	2020	1858	51	111	10	1690	162	10	1320	1116	69	135	43
I-5 Northbound C-D Road																		
036	0.15	2000	13100	1375	55	1140	1039	30	71	52	960	110	55	700	564	41	95	55
036	0.15	2005	13700	1438	54	1190	1085	31	74	52	1000	115	54	740	596	43	101	55
036	0.15	2025	14500	1522	54	1260	1149	33	78	48	1060	121	53	780	629	45	106	55
I-5 Northbound C-D Road																		
037	0.07	2000	17400	2071	50	1510	1380	45	85	20	1290	161	45	1030	822	79	129	54
037	0.07	2005	18300	2178	40	1720	1572	52	96	10	1460	183	25	1170	934	90	146	52
037	0.07	2025	21600	2570	32	1880	1719	56	105	10	1600	200	10	1280	1021	99	160	46
I-5 Northbound C-D Road																		
038	0.15	2000	4300	697	55	370	340	15	15	55	330	50	55	320	250	38	32	55

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TRANSPORTATION PLANNING ANALYSIS UNIT
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038	0.15	2005	4600	745	55	400	368	16	16	55	360	54	55	350	273	42	35	55
038	0.15	2025	7100	1150	55	620	570	25	25	55	550	84	55	540	422	64	54	55
I-5 Northbound C-D Road																		
039	0.10	2000	6500	812	55	560	520	20	20	55	500	66	55	480	392	48	40	55
039	0.10	2005	7200	900	55	630	585	23	22	55	560	74	55	540	441	54	45	55
039	0.10	2025	12100	1512	55	1040	967	37	36	54	930	122	55	900	735	90	75	55
I-5 Northbound																		
040	0.64	2000	15800	2639	55	1380	1139	40	201	55	1100	205	55	950	706	39	205	55
040	0.64	2005	18000	3006	55	1570	1295	46	229	55	1260	234	55	1080	803	44	233	55
040	0.64	2025	29100	4860	55	2540	2095	74	371	55	2030	378	55	1740	1293	71	376	55
I-5 Northbound																		
041	0.50	2000	22300	3456	55	1940	1649	60	231	55	1590	262	55	1420	1091	85	244	55
041	0.50	2005	25200	3906	55	2200	1870	68	262	55	1810	297	55	1610	1236	97	277	55
041	0.50	2025	41200	6386	54	3580	3043	111	426	35	2940	483	53	2620	2012	157	451	54
I-5 South to Beltline West R																		
042	0.43	2000	4700	583	45	400	365	15	20	45	360	44	45	250	185	29	36	45
042	0.43	2005	5100	632	45	440	402	16	22	45	390	49	45	270	200	31	39	45
042	0.43	2025	7500	930	45	660	604	24	32	45	590	73	45	410	303	48	59	45
Beltline East to I-5 South R																		
043	0.42	2000	11800	1263	45	1030	940	30	60	45	870	100	45	880	708	68	104	45
043	0.42	2005	12400	1327	45	1080	986	31	63	44	910	105	45	930	748	72	110	45
043	0.42	2025	13300	1423	45	1160	1059	34	67	44	970	113	45	1000	805	77	118	45
I-5 North to Beltline East Ra																		
044	0.25	2000	5500	231	45	480	480	10	10	45	400	20	45	350	324	14	12	45
044	0.25	2005	6100	256	45	530	508	11	11	45	440	22	45	390	361	16	13	45
044	0.25	2025	8800	370	45	760	728	16	16	44	630	32	45	550	509	22	19	45
Beltline West to I-5 North R																		
045	0.26	2000	2200	117	45	190	180	5	5	45	160	5	45	150	134	9	7	45
045	0.26	2005	2600	138	45	220	208	6	6	45	190	6	45	170	152	10	8	45
045	0.26	2025	5000	265	45	420	398	11	11	45	350	12	45	330	294	20	16	45

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ANALYST: Peter Schuytema
CHECKED BY: _____
FILE: BELTNB.MDB

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

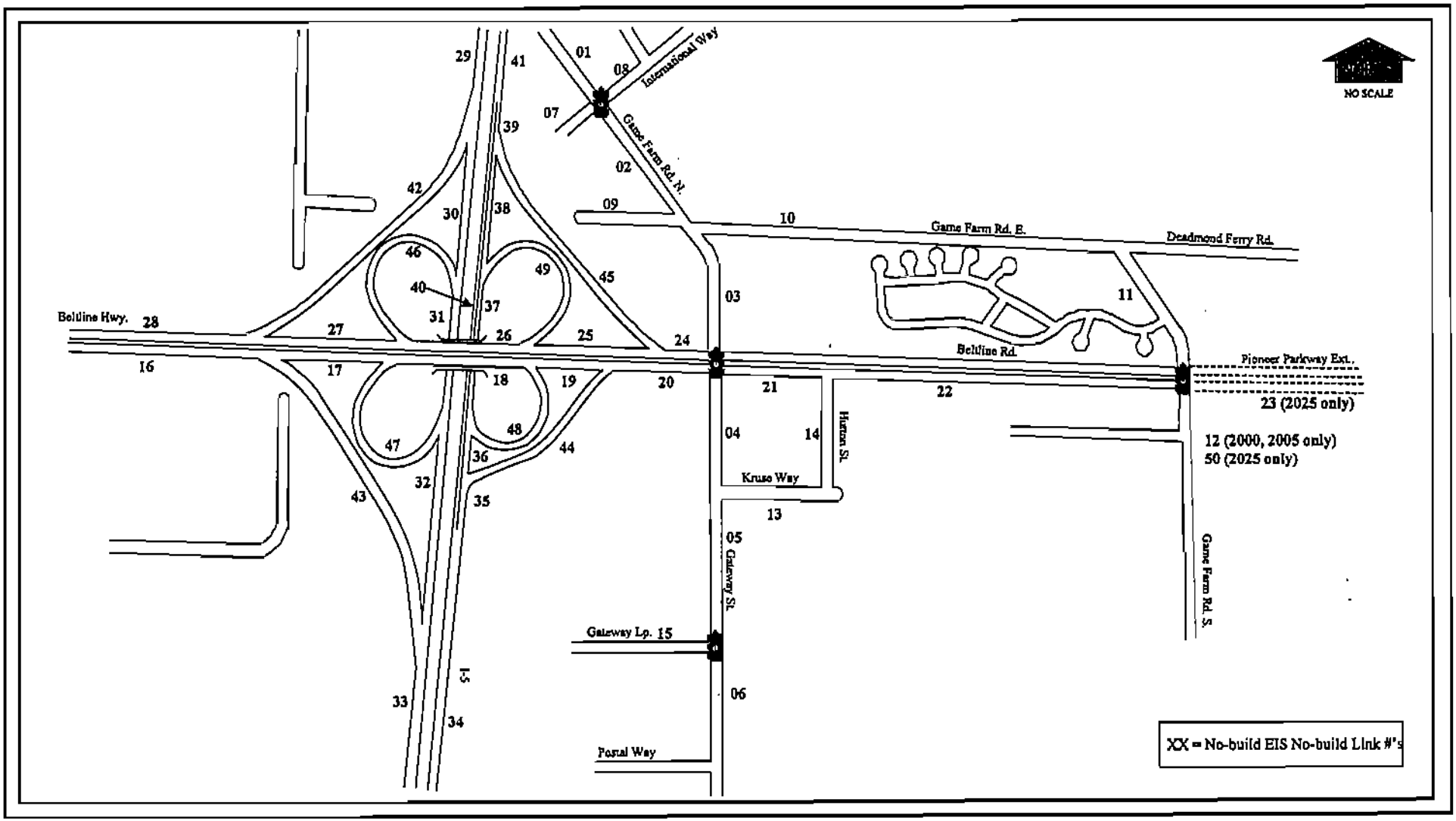
PROJECT: I-5/ Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: No-build

PAGE: 7
PRINTING DATE: Feb 1, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	TRKS	SP	PEAK HOUR VOL	AUTO	MTR	HTR	SP	AVERAGE HOUR VOL	TRKS	SP	PEAK TRUCK HOUR VOL	AUTO	MTR	HTR	SP
Beltline West to I-5 South L																		
046	0.29	2000	4400	172	25	380	365	10	5	25	320	15	25	280	263	12	5	25
046	0.29	2005	5000	195	25	440	423	11	6	25	370	17	25	320	300	14	6	25
046	0.29	2025	6700	261	25	580	557	15	8	25	480	23	25	420	394	18	8	25
I-5 South to Beltline East Lo																		
047	0.23	2000	1700	60	25	140	135	5	0	25	120	5	25	100	86	12	2	25
047	0.23	2005	2000	70	25	180	174	6	0	25	150	6	25	130	112	16	2	25
047	0.23	2025	4800	168	25	420	406	14	0	25	350	15	25	300	257	37	6	25
Beltline East to I-5 North Lo																		
048	0.21	2000	4300	697	25	370	340	15	15	25	330	50	25	320	250	38	32	25
048	0.21	2005	4600	745	25	400	368	16	16	25	360	54	25	350	273	42	35	25
048	0.21	2025	7100	1150	25	620	570	25	25	26	550	84	25	540	422	64	54	25
I-5 North to Beltline West Lo																		
049	0.23	2000	13100	1375	20	1140	1039	30	71	10	960	110	14	700	564	41	95	27
049	0.23	2005	13700	1438	18	1190	1085	31	74	10	1000	115	10	740	596	43	101	28
049	0.23	2025	14500	1522	18	1260	1149	33	78	10	1060	121	10	780	629	45	106	29
I-5 North to Beltline West Lo																		
050	0.25	2000	0	0	35	0	0	0	0	35	0	0	35	0	0	0	0	35
050	0.25	2005	0	0	35	0	0	0	0	35	0	0	35	0	0	0	0	35
050	0.25	2025	7000	84	35	600	597	2	1	35	540	5	35	540	512	19	9	35

ABBREVIATION: SECT = SECTION NUMBER
VOL = TOTAL VOLUME
MTR = MEDIUM TRUCK VOLUM
SP = SPEED OF VEHICLE
AUTO = AUTOMOBILE VOLUME
HTR = HEAVY TRUCK VOLUME

ANALYST: Peter Schuytema
CHECKED BY: _____
FILE: BELTNB.MDB



OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Beltline Interchange Project - No-build EIS Link Numbers	FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema	FIGURE 6
	DATE : 01/1201	Reviewed By: Brian G. Dunn, P.E.	

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative 1

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	TRKS	SP	PEAK HOUR VOL	AUTO	MTR	HTR	SP	AVERAGE HOUR VOL	TRKS	SP	PEAK TRUCK HOUR VOL	AUTO	MTR	HTR	SP
Game Farm Road N																		
001	0.25	2005	10900	414	40	940	922	14	4	40	760	29	40	710	651	39	20	40
001	0.25	2025	18600	707	40	1620	1590	24	6	35	1310	50	40	1220	1119	67	34	40
Game Farm Road N																		
002	0.12	2005	15700	1162	40	1360	1311	29	20	40	1090	62	40	990	861	95	34	40
002	0.12	2025	25600	1894	40	2230	2150	47	33	37	1790	102	40	1620	1409	156	55	40
Gateway Street																		
003	0.09	2005	15200	912	40	1320	1259	36	25	40	1140	78	40	1020	884	97	39	40
003	0.09	2025	23800	1428	40	2070	1975	56	39	40	1780	123	40	1600	1387	152	61	40
Gateway Street																		
004	0.08	2005	24500	1053	35	2130	2056	53	21	35	1820	87	35	1550	1449	64	37	35
004	0.08	2025	28600	1230	35	2480	2393	62	25	32	2120	102	35	1810	1693	74	43	35
Gateway Street																		
005	0.22	2005	30700	1105	35	2670	2587	67	16	35	2350	69	35	1860	1746	84	30	35
005	0.22	2025	31600	1138	35	2750	2664	69	17	35	2420	92	35	1920	1803	86	31	35
Gateway Street																		
006	0.25	2005	17200	206	35	2380	2368	10	2	35	2160	22	35	2140	2031	75	34	35
006	0.25	2025	17500	210	35	2390	2378	10	2	35	2170	22	35	2150	2041	75	34	35
Parking Lot																		
007	0.03	2005	1000	132	15	80	80	0	0	15	50	1	15	60	53	7	0	15
007	0.03	2025	1300	172	15	110	110	0	0	14	60	2	15	80	70	10	0	15
International Way																		
008	0.25	2005	5600	571	40	480	451	14	15	40	330	30	40	330	267	44	19	40
008	0.25	2025	8800	898	40	770	724	22	24	35	540	48	40	530	429	70	31	40
Game Farm Road W																		
009	0.05	2005	1000	99	25	90	78	12	0	25	80	10	25	40	24	14	2	25
008	0.05	2025	1300	129	25	120	105	15	0	25	110	13	25	50	30	17	3	25
Game Farm Road E																		
010	0.42	2005	5400	211	22	470	460	9	1	10	410	17	10	210	177	31	2	10

ABBREVIATION: SECT = SECTION NUMBER
VOL = TOTAL VOLUME
MTR = MEDIUM TRUCK VOLUM
SP = SPEED OF VEHICLE
AUTO = AUTOMOBILE VOLUME
HTR = HEAVY TRUCK VOLUME

ANALYST: Peter Schuyteman
CHECKED BY:
FILE: BELTALT1.MDB

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative 1

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	TRKS	SP	PEAK HOUR VOL	AUTO	MTR	HTR	SP	AVERAGE HOUR VOL	TRKS	SP	PEAK TRUCK HOUR VOL	AUTO	MTR	HTR	SP
010	0.42	2025	12100	472	35	1020	997	20	3	35	890	37	35	460	387	68	5	35
Game Farm Road S																		
011	0.11	2005	7000	280	35	520	505	10	5	35	380	17	35	290	264	19	7	35
011	0.11	2025	13200	528	35	1140	1107	22	11	29	820	37	35	630	573	41	16	35
Game Farm Road S																		
012	0.25	2005	15800	553	35	1290	1250	35	5	35	930	38	35	750	698	43	9	35
012	0.25	2025	0	0	35	0	0	0	0	35	0	0	35	0	0	0	0	35
Kruse Way																		
013	0.08	2005	17300	657	25	1510	1461	38	11	25	1320	54	25	1070	1004	47	19	25
013	0.08	2025	22700	883	25	1980	1916	50	14	25	1730	71	25	1400	1313	62	25	25
Hutton Street																		
014	0.08	2005	16700	635	25	1460	1410	38	12	25	1190	49	25	990	929	49	12	25
014	0.08	2025	23000	874	25	2000	1932	52	16	25	1630	67	25	1360	1277	67	16	25
Gateway Loop																		
015	0.17	2005	6400	371	25	560	528	0	32	25	520	28	25	380	337	27	16	25
015	0.17	2025	8200	476	25	710	669	0	41	25	660	36	25	480	425	34	21	25
Beltline Hwy Eastbound																		
016	0.37	2005	30300	2636	55	2640	2465	77	98	55	2230	209	55	2130	1830	147	153	55
016	0.37	2025	41800	3637	55	3640	3399	106	135	55	3070	288	55	2940	2525	203	212	55
Beltline Hwy Eastbound																		
017	0.38	2005	13300	559	55	1160	1123	29	8	55	960	46	55	850	797	32	21	55
017	0.38	2025	21400	899	55	1860	1800	47	13	55	1540	74	55	1370	1284	52	34	55
Beltline Hwy Eastbound																		
018	0.22	2005	15500	636	45	1340	1298	36	8	45	1110	52	45	980	914	47	19	45
018	0.22	2025	26200	1074	45	2280	2204	62	14	45	1890	89	45	1670	1558	80	32	45
Beltline Hwy Eastbound																		
019	0.13	2005	21400	877	45	1860	1796	45	19	45	1550	71	45	1360	1266	63	31	45
019	0.13	2025	35000	1435	45	3050	2946	73	31	45	2540	117	45	2240	2085	103	52	45
Beltline Road																		

ABBREVIATION: SECT = SECTION NUMBER
VOL = TOTAL VOLUME
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AUTO = AUTOMOBILE VOLUME
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ANALYST: Peter Schuytema
CHECKED BY:
FILE: BELTALT1.MDB

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative 1

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	TRKS	SP	PEAK HOUR VOL	AUTO	MTR	HTR	SP	AVERAGE HOUR VOL	TRKS	SP	PEAK TRUCK HOUR VOL	AUTO	MTR	HTR	SP
020	0.09	2005	21400	856	45	1880	1818	47	15	45	1580	65	45	1300	1219	62	19	45
020	0.09	2025	43600	1744	45	3860	3732	97	31	45	3250	133	45	2670	2502	128	40	45
Beltline Road																		
021	0.32	2005	11100	389	45	980	946	26	8	45	740	30	45	640	604	33	3	45
021	0.32	2025	32600	1141	45	2830	2731	76	23	42	2130	85	45	1830	1730	93	7	45
Pioneer Parkway Extension																		
022	0.25	2005	0	0	45	0	0	0	0	45	0	0	45	0	0	0	0	45
022	0.25	2025	34400	1204	45	2990	2897	81	12	37	2150	88	45	1750	1629	100	21	45
Beltline Hwy Westbound																		
023	0.14	2005	17500	718	45	1520	1469	36	15	45	1260	58	45	1030	940	68	22	45
023	0.14	2025	27100	1111	45	2360	2279	57	24	45	1960	90	45	1600	1460	106	34	45
Beltline Hwy Westbound																		
024	0.12	2005	14900	581	45	1300	1260	31	9	45	1080	52	45	850	781	57	12	45
024	0.12	2025	22200	866	45	1940	1879	47	14	45	1610	77	45	1270	1167	85	18	45
Beltline Hwy Westbound																		
025	0.09	2005	9900	386	45	860	837	20	3	45	710	35	45	540	491	43	6	45
025	0.09	2025	15500	604	45	1350	1314	31	5	45	1120	55	45	840	764	66	10	45
Beltline Hwy Westbound																		
026	0.38	2005	9900	386	55	860	837	20	3	55	710	35	55	540	491	43	6	55
026	0.38	2025	15500	604	55	1350	1314	31	5	55	1120	55	55	840	764	66	10	55
Beltline Hwy Westbound																		
027	0.42	2005	28700	2468	27	2500	2323	70	107	27	2110	198	27	1550	1285	116	149	27
027	0.42	2025	37500	3225	27	3260	3029	91	140	29	2750	258	27	2020	1675	151	194	27
I-5 Southbound																		
028	1.00	2005	22000	4158	55	1920	1559	94	267	55	1760	391	55	1650	1170	163	317	55
028	1.00	2025	37500	7088	55	3260	2647	160	453	55	2990	664	55	2800	1985	277	538	55
I-5 Southbound																		
029	0.52	2005	14900	3442	55	1300	980	72	248	55	1220	342	55	1250	851	115	284	55
029	0.52	2025	25200	5821	55	2180	1644	120	416	55	2050	573	55	2090	1424	192	474	55

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HTR = HEAVY TRUCK VOLUME

ANALYST: Peter Schuytema
CHECKED BY:
FILE: BELTALT1.MDB

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative 1

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	TRKS	SP	PEAK HOUR VOL	AUTO	MTR	HTR	SP	AVERAGE HOUR VOL	TRKS	SP	PEAK TRUCK HOUR VOL	AUTO	MTR	HTR	SP
I-5 Southbound																		
030	0.28	2005	19900	3642	55	1730	1392	85	253	55	1590	351	55	1570	1137	132	301	55
030	0.28	2025	31900	5838	55	2770	2230	136	404	55	2550	563	55	2520	1824	212	484	55
I-5 Southbound																		
031	0.81	2005	32200	4894	55	2800	2380	109	311	55	2470	420	55	2480	1905	191	384	55
031	0.81	2025	45200	6870	55	3920	3332	153	435	55	3460	588	55	3470	2665	267	538	55
I-5 Northbound																		
032	0.62	2005	37800	4687	55	3290	2882	86	322	55	2690	369	55	2200	1742	119	339	55
032	0.62	2025	52400	6498	55	4560	3994	119	447	55	3730	512	55	3050	2415	165	470	55
I-5 Northbound																		
033	0.47	2005	18000	3006	55	1570	1296	46	228	55	1260	229	55	1080	800	45	235	55
033	0.47	2025	29100	4860	55	2540	2098	74	368	55	2030	370	55	1750	1295	74	381	55
I-5 Northbound																		
034	0.30	2005	22700	3768	55	1980	1673	61	246	55	1620	285	55	1430	1072	86	272	55
034	0.30	2025	36200	6009	55	3160	2670	98	392	55	2590	455	55	2280	1710	137	433	55
I-5 Northbound																		
035	1.00	2005	25300	3921	55	2200	1870	68	262	55	1810	297	55	1610	1236	97	277	55
035	1.00	2025	41200	6386	55	3580	3043	111	426	55	2940	483	55	2620	2012	157	451	55
I-5 South to Beltline West R																		
036	0.22	2005	7100	703	45	620	579	22	19	45	540	55	45	410	324	49	37	45
036	0.22	2025	12300	1218	45	1080	1009	39	32	44	940	96	45	710	562	84	64	45
I-5 North to Beltline West F																		
037	0.21	2005	19800	1703	55	1720	1582	43	95	55	1440	138	55	1120	948	58	114	55
037	0.21	2025	23300	2004	55	2020	1858	51	111	53	1690	162	55	1320	1116	69	135	55
I-5 North to Beltline West F																		
038	0.50	2005	13700	1438	55	1190	1085	31	74	55	1000	115	55	740	596	43	101	55
038	0.50	2025	14500	1522	55	1260	1149	33	78	55	1060	121	55	780	629	45	106	55
I-5 North to Beltline West F																		
039	0.19	2005	18800	2068	55	1640	1496	49	95	55	1400	165	55	1010	791	79	140	55

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ANALYST: Peter Schuyteme
CHECKED BY:
FILE: BELTALT1.MDB

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

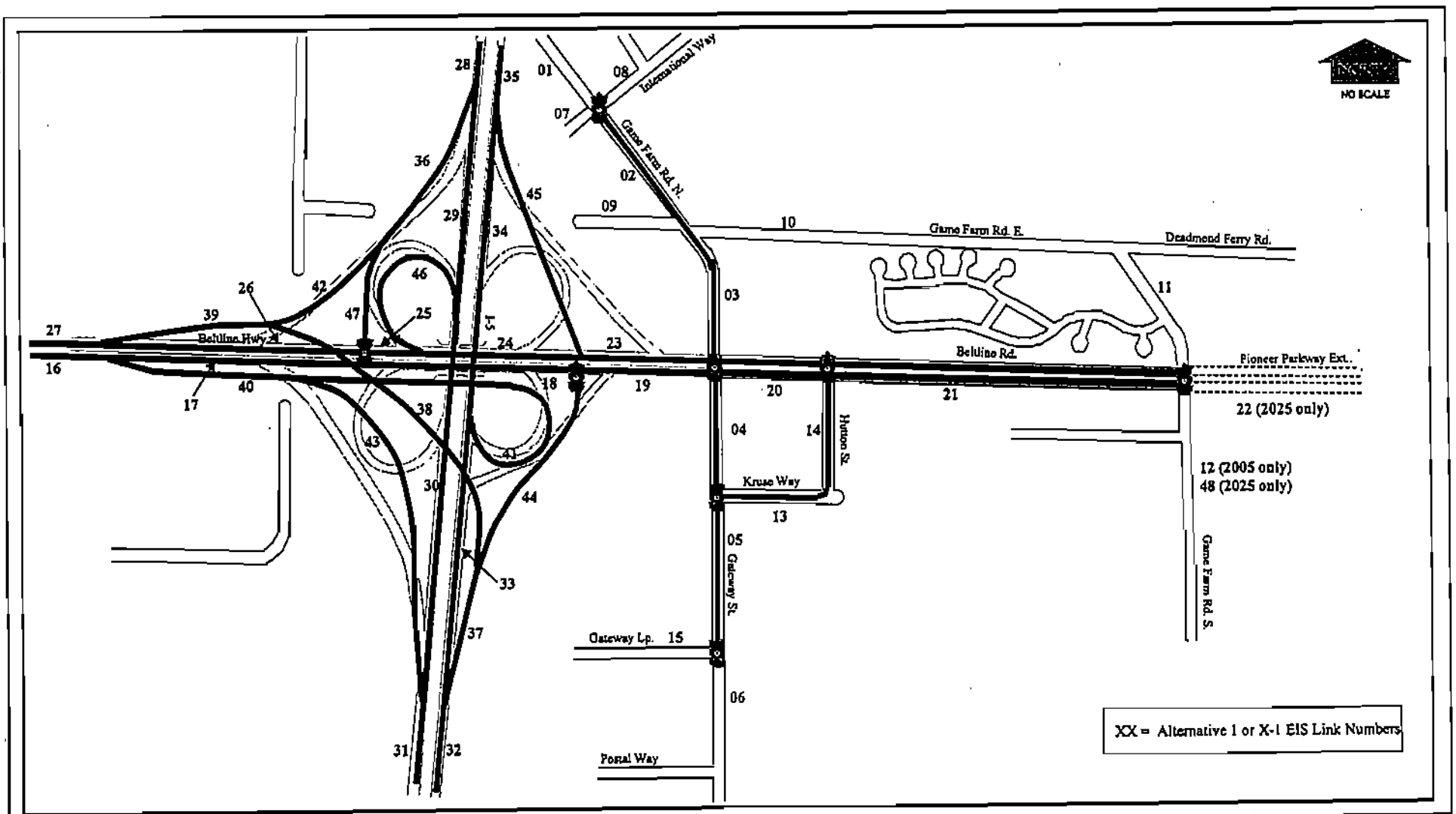
PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative 1

PAGE: 5
PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	AVERAGE DAY TRKS	AVERAGE DAY SP	PEAK HOUR VOL	PEAK HOUR AUTO	PEAK HOUR MTR	PEAK HOUR HTR	PEAK HOUR SP	AVERAGE HOUR VOL	AVERAGE HOUR TRKS	AVERAGE HOUR SP	PEAK TRUCK HOUR VOL	PEAK TRUCK HOUR AUTO	PEAK TRUCK HOUR MTR	PEAK TRUCK HOUR HTR	PEAK TRUCK HOUR SP
039	0.19	2025	22000	2420	55	1920	1751	58	111	53	1640	193	55	1190	932	93	165	55
Beltline East to I-5 North/So																		
040	0.24	2005	17000	2074	55	1480	1354	49	77	55	1260	152	55	1270	1011	117	142	55
040	0.24	2025	20400	2489	55	1860	1702	61	97	55	1590	191	55	1600	1274	147	179	55
Beltline East to I-5 South Lo																		
041	0.55	2005	4700	761	25	400	368	16	16	25	360	54	25	350	273	42	35	25
041	0.55	2025	7200	1166	25	620	570	25	25	26	550	84	25	540	422	64	54	25
I-5 South to Beltline West R																		
042	0.42	2005	5100	632	45	440	402	16	22	45	390	49	45	270	200	31	39	45
042	0.42	2025	7500	930	45	660	604	24	32	45	590	73	45	410	303	48	59	45
Beltline West to I-5 South R																		
043	0.46	2005	12300	1316	45	1080	986	31	63	44	910	105	45	930	753	67	110	45
043	0.46	2025	13200	1412	45	1160	1059	34	67	44	970	113	45	1000	810	72	118	45
I-5 North to Beltline East Ra																		
044	0.24	2005	6100	256	45	530	508	11	11	45	440	22	45	390	361	16	13	45
044	0.24	2025	8800	370	45	760	728	16	16	45	630	32	45	550	509	22	19	45
Beltline West to I-5 North R																		
045	0.30	2005	2600	138	45	220	208	6	6	45	190	6	45	170	152	10	8	45
045	0.30	2025	4900	260	45	420	398	11	11	45	350	12	45	330	294	20	16	45
Beltline West to I-5 South L																		
046	0.29	2005	5000	195	25	440	423	11	6	25	370	17	25	320	300	14	6	25
046	0.29	2025	6700	261	25	580	557	15	8	25	480	23	25	420	394	18	8	25
I-5 South to Beltline West R																		
047	0.28	2005	2000	70	45	180	174	6	0	45	150	6	45	130	112	16	2	45
047	0.28	2025	4800	168	45	420	406	14	0	44	350	15	45	300	257	37	6	45
Game Farm Road S																		
048	0.25	2005	0	0	35	0	0	0	0	35	0	0	35	0	0	0	0	35
048	0.25	2025	7000	84	35	600	597	2	1	29	540	5	35	540	512	19	9	35

ABBREVIATION: SECT = SECTION NUMBER
VOL = TOTAL VOLUME
MTR = MEDIUM TRUCK VOLUM
SP = SPEED OF VEHICLE
AUTO = AUTOMOBILE VOLUME
HTR = HEAVY TRUCK VOLUME

ANALYST: Peter Schuyteme
CHECKED BY:
FILE: BELTALT1.MDB



OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Beltline Interchange Project - Alternative 1 & X-1 EIS Link Numbers	FILE : Beltline Int -.ppt	Prepared By: Peter L. Schuytema	FIGURE D1
	DATE : 1/12/01	Reviewed By: Brian G. Dunn, P.E.	

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative 2

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	TRKS	SP	PEAK HOUR VOL	AUTO	MTR	HTR	SP	AVERAGE HOUR VOL	TRKS	SP	PEAK TRUCK HOUR VOL	AUTO	MTR	HTR	SP
Game Farm Road N																		
001	0.25	2005	10900	414	40	940	922	14	4	40	760	29	40	710	651	39	20	40
001	0.25	2025	18600	707	40	1620	1590	24	6	35	1310	50	40	1220	1119	67	34	40
Game Farm Road N																		
002	0.14	2005	15700	1162	40	1360	1311	29	20	40	1090	62	40	990	861	95	34	40
002	0.14	2025	25600	1894	40	2230	2150	47	33	37	1790	102	40	1620	1409	156	55	40
Gateway Street																		
003	0.09	2005	15200	912	40	1320	1259	36	25	40	1140	78	40	1020	884	97	39	40
003	0.09	2025	23800	1428	40	2070	1975	56	39	40	1780	123	40	1600	1387	152	61	40
Gateway Street																		
004	0.08	2005	24500	882	35	2130	2064	53	13	35	1870	71	35	1550	1449	64	37	35
004	0.08	2025	27800	1001	35	2420	2344	61	15	35	2130	81	35	1760	1646	72	42	35
Gateway Street																		
005	0.17	2005	30800	1109	35	2670	2587	67	16	35	2350	89	35	1860	1746	84	30	35
005	0.17	2025	31600	1138	35	2750	2664	69	17	35	2420	92	35	1920	1803	86	31	35
Gateway Street																		
006	0.25	2005	27300	328	35	2380	2368	10	2	35	2160	22	35	2140	2044	75	21	35
006	0.25	2025	27500	330	35	2390	2378	10	2	35	2170	22	35	2150	2053	75	22	35
Parking Lot																		
007	0.03	2005	1000	132	15	80	80	0	0	15	50	1	15	60	53	7	0	15
007	0.03	2025	1300	172	15	110	110	0	0	14	60	2	15	80	70	10	0	15
International Way																		
008	0.25	2005	5600	571	40	480	451	14	15	40	330	30	40	330	267	44	19	40
008	0.25	2025	8800	898	40	770	724	22	24	35	540	48	40	530	429	70	31	40
Game Farm Road W																		
009	0.05	2005	1000	99	25	90	78	12	0	25	80	10	25	40	24	14	2	25
009	0.05	2025	1300	129	25	120	105	15	0	25	110	13	25	50	30	17	3	25
Game Farm Road E																		
010	0.42	2005	5400	211	22	470	460	9	1	10	410	17	10	210	177	31	2	10

ABBREVIATION: SECT = SECTION NUMBER
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MTR = MEDIUM TRUCK VOLUM
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ANALYST: Peter Schuytema
CHECKED BY:
FILE: BELTALT2.MDB

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative 2

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	TRKS	SP	PEAK HOUR VOL	AUTO	MTR	HTR	SP	AVERAGE HOUR VOL	TRKS	SP	PEAK TRUCK HOUR VOL	AUTO	MTR	HTR	SP
010	0.42	2025	12100	472	35	1020	997	20	3	35	890	37	35	460	387	68	5	35
Game Farm Road S																		
011	0.11	2005	6000	240	35	520	505	10	5	35	380	17	35	290	264	19	7	35
011	0.11	2025	7200	288	35	1140	1107	22	11	29	820	37	35	630	573	41	16	35
Game Farm Road S																		
012	0.25	2005	14800	518	35	1290	1250	35	5	35	930	38	35	750	698	43	9	35
012	0.25	2025	0	0	35	0	0	0	0	35	0	0	35	0	0	0	0	35
Kruse Way																		
013	0.09	2005	16800	605	25	1510	1463	38	9	25	1330	50	25	1070	1004	47	19	25
013	0.09	2025	21800	785	25	1910	1851	48	11	25	1680	64	25	1350	1267	59	24	25
Hutton Street																		
014	0.06	2005	1700	63	25	140	135	4	1	25	120	5	25	100	94	5	1	25
014	0.06	2025	5000	185	25	440	426	11	3	25	380	15	25	300	282	14	4	25
Gateway Loop																		
015	0.17	2005	6400	371	25	560	528	32	0	25	520	28	25	380	337	27	16	25
015	0.17	2025	8200	476	25	710	669	41	0	25	660	36	25	480	425	34	21	25
Beltline Hwy Eastbound																		
016	0.37	2005	30300	2636	55	2640	2465	77	98	55	2230	209	55	2130	1830	147	153	55
016	0.37	2025	41800	3637	55	3640	3399	106	135	55	3070	288	55	2940	2525	203	212	55
Beltline Hwy Eastbound																		
017	0.38	2005	13300	559	55	1160	1123	29	8	55	960	44	55	850	797	32	21	55
017	0.38	2025	21400	899	55	1860	1800	47	13	55	1540	71	55	1370	1284	52	34	55
Beltline Hwy Eastbound																		
018	0.22	2005	15500	636	45	1340	1296	36	8	45	1110	52	45	980	914	47	19	45
018	0.22	2025	26200	1074	45	2280	2204	62	14	45	1890	89	45	1670	1558	80	32	45
Beltline Hwy Eastbound																		
019	0.13	2005	21400	877	19	1860	1796	45	19	19	1550	71	19	1350	1263	55	32	19
019	0.13	2025	35000	1435	19	3050	2946	73	31	19	2540	117	19	2220	2076	91	53	19
Beltline Road																		

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TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative 2

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	TRKS	SP	PEAK HOUR VOL	AUTO	MTR	HTR	SP	AVERAGE HOUR VOL	TRKS	SP	PEAK TRUCK HOUR VOL	AUTO	MTR	HTR	SP
020	0.09	2005	21400	856	45	1880	1818	47	15	45	1580	65	45	1300	1219	62	19	45
020	0.09	2025	44600	1784	45	3860	3732	97	31	45	3250	133	45	2670	2502	128	40	45
Beltline Road																		
021	0.10	2005	21400	856	45	1880	1818	47	15	45	1580	65	45	1300	1219	62	19	45
021	0.10	2025	44600	1784	45	3860	3732	97	31	45	3250	133	45	2670	2502	128	40	45
Beltline Road																		
022	0.21	2005	11100	389	45	980	946	26	8	45	740	30	45	640	604	33	3	45
022	0.21	2025	27800	973	45	2830	2731	76	23	42	2130	85	45	1830	1730	93	7	45
Pioneer Parkway Extension																		
023	0.25	2005	0	0	45	0	0	0	0	45	0	0	45	0	0	0	0	45
023	0.25	2025	34400	1204	45	2990	2897	81	12	37	2150	88	45	1750	1629	100	21	45
Beltline Hwy Westbound																		
024	0.14	2005	17500	718	45	1520	1469	36	15	45	1260	58	45	1030	940	68	22	45
024	0.14	2025	27100	1111	45	2360	2279	57	24	45	1960	90	45	1600	1460	106	34	45
Beltline Hwy Westbound																		
025	0.12	2005	14900	581	45	1280	1240	31	9	45	1060	51	45	840	772	56	12	45
025	0.12	2025	22200	866	45	1940	1879	47	14	45	1610	77	45	1270	1167	85	18	45
Beltline Hwy Westbound																		
026	0.09	2005	9900	386	45	860	837	20	3	45	710	35	45	540	491	43	6	45
026	0.09	2025	15500	604	45	1350	1314	31	5	45	1120	55	45	840	764	66	10	45
Beltline Hwy Westbound																		
027	0.38	2005	9900	386	55	860	837	20	3	55	710	35	55	540	491	43	6	55
027	0.38	2025	15500	604	55	1350	1314	31	5	55	1120	55	55	840	764	66	10	55
Beltline Hwy Westbound																		
028	0.42	2005	28700	2468	55	2500	2323	70	107	55	2110	198	55	1550	1285	116	149	55
028	0.42	2025	37500	3225	55	3260	3029	91	140	55	2750	258	55	2020	1675	151	194	55
I-5 Southbound																		
029	1.00	2005	22000	4158	55	1920	1559	94	267	55	1760	391	55	1650	1170	163	317	55
029	1.00	2025	37500	7088	55	3260	2647	160	453	55	2990	664	55	2800	1985	277	538	55

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TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

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LOCATION: Springfield
ALTERNATIVE: Alternative 2

PRINTING DATE: Feb 9, 2001
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SECT	DIST	YEAR	AVERAGE DAY VOL	AVERAGE DAY TRKS	AVERAGE DAY SP	PEAK HOUR VOL	PEAK HOUR AUTO	PEAK HOUR MTR	PEAK HOUR HTR	PEAK HOUR SP	AVERAGE HOUR VOL	AVERAGE HOUR TRKS	AVERAGE HOUR SP	PEAK TRUCK HOUR VOL	PEAK TRUCK HOUR AUTO	PEAK TRUCK HOUR MTR	PEAK TRUCK HOUR HTR	PEAK TRUCK HOUR SP
I-5 Southbound																		
030	0.52	2005	14900	3442	55	1300	980	72	248	55	1220	342	55	1250	851	115	284	55
030	0.52	2025	25200	5821	55	2180	1644	120	416	55	2050	573	55	2090	1424	192	474	55
I-5 Southbound																		
031	0.28	2005	19900	3642	55	1730	1392	85	253	55	1590	351	55	1570	1137	132	301	55
031	0.28	2025	31900	5838	55	2770	2230	136	404	55	2550	563	55	2520	1824	212	484	55
I-5 Southbound																		
032	0.81	2005	32200	4894	55	2800	2324	165	311	55	2470	420	55	2480	1905	191	384	55
032	0.81	2025	45200	6870	55	3920	3254	231	435	55	3460	588	55	3470	2665	267	538	55
I-5 Northbound																		
033	0.62	2005	37800	4687	55	3290	2882	86	322	55	2690	369	55	2200	1742	119	339	55
033	0.62	2025	52400	6498	55	4560	3994	119	447	55	3730	512	55	3050	2415	165	470	55
I-5 Northbound																		
034	0.47	2005	18000	3006	55	1570	1296	46	228	55	1260	229	55	1080	800	45	235	55
034	0.47	2025	29100	4860	55	2540	2098	74	368	55	2030	370	55	1750	1295	74	381	55
I-5 Northbound																		
035	0.30	2005	22700	3768	55	1980	1673	61	246	55	1620	285	55	1430	1072	86	272	55
035	0.30	2025	36200	6009	55	3160	2670	98	392	55	2590	455	55	2280	1710	137	433	55
I-5 Northbound																		
036	1.00	2005	25300	3921	55	2200	1870	68	262	55	1810	297	55	1610	1236	97	277	55
036	1.00	2025	41200	6386	55	3580	3043	111	426	55	2940	483	55	2620	2012	157	451	55
I-5 North to Beltline West F																		
037	0.21	2005	19800	1703	55	1720	1582	43	95	55	1440	138	55	1120	948	58	114	55
037	0.21	2025	29100	2503	55	2020	1858	51	111	53	1690	162	55	1320	1116	69	135	55
I-5 North to Beltline West F																		
038	0.50	2005	13700	1438	55	1190	1085	31	74	55	1000	115	55	740	596	43	101	55
038	0.50	2025	14500	1522	55	1280	1149	33	78	55	1060	121	55	780	629	45	106	55
I-5 North to Beltline West F																		
039	0.19	2005	18800	2068	55	1640	1496	49	95	55	1400	165	55	1010	791	79	140	55

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ANALYST: Peter Schuytema
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TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative 2

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	AVERAGE DAY TRKS	AVERAGE DAY SP	PEAK HOUR VOL	PEAK HOUR AUTO	PEAK HOUR MTR	PEAK HOUR HTR	PEAK HOUR SP	AVERAGE HOUR VOL	AVERAGE HOUR TRKS	AVERAGE HOUR SP	PEAK TRUCK HOUR VOL	PEAK TRUCK HOUR AUTO	PEAK TRUCK HOUR MTR	PEAK TRUCK HOUR HTR	PEAK TRUCK HOUR SP
039	0.19	2025	22000	2420	55	1920	1751	58	111	53	1640	193	55	1190	932	93	165	55
Beltline East to I-5 North/So																		
040	0.24	2005	17000	2074	55	1480	1354	49	77	55	1260	152	55	1270	1011	117	142	55
040	0.24	2025	20400	2489	55	1780	1628	59	93	55	1520	182	55	1530	1218	141	171	55
I-5 South to Beltline West R																		
041	0.22	2005	7100	703	45	620	579	22	19	45	540	55	45	410	324	49	37	45
041	0.22	2025	12300	1218	45	1080	1009	39	32	44	940	96	45	710	562	84	64	45
I-5 South to Beltline West R																		
042	0.42	2005	5100	632	45	440	402	16	22	45	390	49	45	270	200	31	39	45
042	0.42	2025	7500	930	45	660	604	24	32	45	590	73	45	410	303	48	59	45
Beltline West to I-5 South R																		
043	0.46	2005	12300	1316	45	1080	986	31	63	44	910	105	45	930	748	72	110	45
043	0.46	2025	13200	1412	45	1160	1059	34	67	44	970	113	45	1000	805	77	118	45
I-5 North to Beltline East Re																		
044	0.24	2005	6100	256	45	530	508	11	11	45	440	22	45	390	361	16	13	45
044	0.24	2025	8800	370	45	760	728	16	16	45	630	32	45	550	509	22	19	45
Beltline West to I-5 North R																		
045	0.30	2005	2600	138	45	220	208	6	6	45	190	6	45	170	152	10	8	45
045	0.30	2025	4900	260	45	420	398	11	11	45	350	12	45	330	294	20	16	45
Beltline West to I-5 South L																		
046	0.29	2005	5000	195	25	440	423	11	6	25	370	17	25	320	300	14	6	25
046	0.29	2025	6700	261	25	580	557	15	8	25	480	23	25	420	394	18	8	25
I-5 South to Beltline West R																		
047	0.28	2005	2000	70	45	180	174	6	0	45	150	6	45	130	112	16	2	45
047	0.28	2025	4800	168	45	420	406	14	0	44	350	15	45	300	257	37	6	45
Beltline East to I-5 North Lo																		
048	0.55	2005	4700	761	25	400	368	16	16	25	360	54	25	350	273	42	35	25
048	0.55	2025	7200	1166	25	620	570	25	25	26	550	84	25	540	422	64	54	25
Jughandle Connection																		

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ANALYST: Peter Schuytema
CHECKED BY:
FILE: BELTALT2.MDB

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative 2

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	AVERAGE DAY TRKS	AVERAGE DAY SP	PEAK HOUR VOL	PEAK HOUR AUTO	PEAK HOUR MTR	PEAK HOUR HTR	PEAK HOUR SP	AVERAGE HOUR VOL	AVERAGE HOUR TRKS	AVERAGE HOUR SP	PEAK TRUCK HOUR VOL	PEAK TRUCK HOUR AUTO	PEAK TRUCK HOUR MTR	PEAK TRUCK HOUR HTR	PEAK TRUCK HOUR SP
049	0.19	2005	16700	618	25	1460	1412	38	10	25	1260	49	25	980	929	49	12	25
049	0.19	2025	23400	866	25	2060	1992	54	14	25	1780	69	25	1400	1314	69	17	25
Game Farm Rd S																		
050	0.25	2005	0	0	35	0	0	0	0	35	0	0	35	0	0	0	0	35
050	0.25	2025	7000	84	35	600	597	2	1	29	540	5	35	540	512	19	9	35

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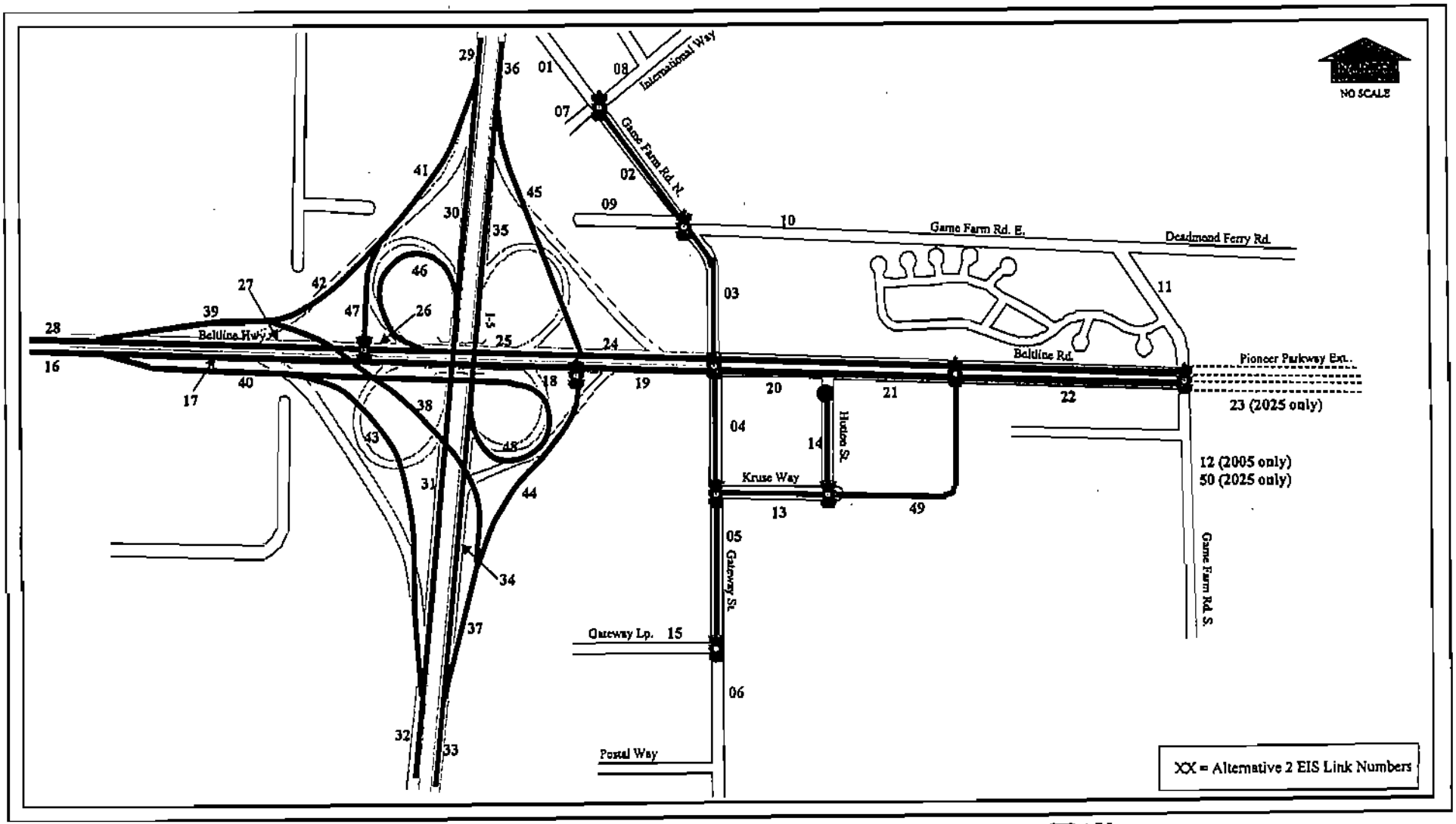

OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Beltline Interchange Project - Alternative 2 EIS Link Numbers	FILE : Beltline Int~.ppt	Prepared By: Peter L. Schuytema	FIGURE D2
	DATE : 1/12/01	Reviewed By: Brian G. Dunn, P.E.	

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative X-1

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	TRKS	SP	PEAK HOUR VOL	AUTO	MTR	HTR	SP	AVERAGE HOUR VOL	TRKS	SP	PEAK TRUCK HOUR VOL	AUTO	MTR	HTR	SP
Game Farm Road N																		
001	0.25	2005	10900	414	40	940	922	14	4	40	760	29	40	710	651	39	20	40
001	0.25	2025	18600	707	40	1620	1590	24	6	35	1310	50	40	1220	1119	67	34	40
Game Farm Road N																		
002	0.14	2005	15700	1162	40	1360	1311	29	20	40	1090	62	40	990	861	95	34	40
002	0.14	2025	25600	1894	40	2230	2150	47	33	37	1790	102	40	1620	1409	156	55	40
Gateway Street																		
003	0.09	2005	15200	912	40	1320	1259	36	25	40	1140	78	40	1020	884	97	39	40
003	0.09	2025	23600	1428	40	2070	1975	56	39	40	1780	123	40	1600	1387	152	61	40
Gateway St - One Way S																		
004	0.08	2005	18800	808	35	1640	1583	41	16	35	1400	67	35	1190	1112	49	29	35
004	0.08	2025	21300	916	35	1850	1785	46	19	35	1580	76	35	1350	1263	55	32	35
Gateway Street																		
005	0.17	2005	30700	1105	35	2670	2587	67	16	35	2350	89	35	1860	1746	84	30	35
005	0.17	2025	31600	1138	35	2750	2664	69	17	35	2420	92	35	1920	1803	86	31	35
Gateway Street																		
006	0.25	2005	17200	206	35	2380	2368	10	2	35	2160	22	35	2140	2031	75	34	35
006	0.25	2025	17500	210	35	2390	2378	10	2	35	2170	22	35	2150	2041	75	34	35
Parking Lot																		
007	0.03	2005	1000	132	15	80	80	0	0	15	50	1	15	60	53	7	0	15
007	0.03	2025	1300	172	15	110	110	0	0	14	60	2	15	80	70	10	0	15
International Way																		
008	0.25	2005	5600	571	40	480	451	14	15	40	330	30	40	330	267	44	19	40
008	0.25	2025	8800	898	40	770	724	22	24	35	540	48	40	530	429	70	31	40
Game Farm Road W																		
009	0.05	2005	1000	99	25	90	78	12	0	25	80	10	25	40	24	14	2	25
009	0.05	2025	1300	129	25	120	105	15	0	25	110	13	25	50	30	17	3	25
Game Farm Road E																		
010	0.42	2005	5400	211	22	470	460	9	1	10	410	17	10	210	177	31	2	10

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SECT	DIST	YEAR	AVERAGE DAY VOL	TRKS	SP	PEAK HOUR VOL	AUTO	MTR	HTR	SP	AVERAGE HOUR VOL	TRKS	SP	PEAK TRUCK HOUR VOL	AUTO	MTR	HTR	SP
010	0.42	2025	12100	472	35	1020	997	20	3	35	890	37	35	460	387	68	5	35
Game Farm Road S																		
011	0.11	2005	7000	280	35	520	505	10	5	35	380	17	35	290	264	19	7	35
011	0.11	2025	13200	528	35	1140	1107	22	11	29	820	37	35	630	573	41	16	35
Game Farm Road S																		
012	0.25	2005	15800	553	35	1290	1250	35	5	35	930	38	35	750	698	43	9	35
012	0.25	2025	0	0	35	0	0	0	0	35	0	0	35	0	0	0	0	35
Kruse Way - One Way																		
013	0.08	2005	17000	731	35	1480	1428	37	15	32	1270	61	35	1080	1010	44	26	35
013	0.08	2025	18600	800	35	1620	1563	41	16	27	1390	66	35	1180	1104	48	28	35
Hutton St - One Way N																		
014	0.08	2005	16000	688	35	1390	1341	35	14	35	1190	57	35	1010	945	41	24	35
014	0.08	2025	16000	688	35	1400	1351	35	14	27	1200	57	35	1020	954	42	24	35
Gateway Loop																		
015	0.17	2005	6400	371	25	560	528	0	32	25	520	28	25	380	337	27	16	25
015	0.17	2025	8200	476	25	710	669	0	41	25	660	36	25	480	425	34	21	25
Beltline Hwy Eastbound																		
016	0.37	2005	30300	2636	55	2640	2465	77	98	55	2230	209	55	2130	1830	147	153	55
016	0.37	2025	41800	3637	55	3640	3399	106	135	55	3070	288	55	2940	2525	203	212	55
Beltline Hwy Eastbound																		
017	0.38	2005	13300	559	55	1160	1123	29	8	55	960	46	55	850	797	32	21	55
017	0.38	2025	21400	899	55	1860	1800	47	13	55	1540	74	55	1370	1284	52	34	55
Beltline Hwy Eastbound																		
018	0.22	2005	15500	636	45	1340	1296	36	8	45	1110	52	45	980	914	47	19	45
018	0.22	2025	26200	1074	45	2280	2204	62	14	45	1890	89	45	1670	1558	80	32	45
Beltline Hwy Eastbound																		
019	0.13	2005	21400	877	45	1860	1796	45	19	45	1550	71	45	1360	1266	63	31	45
019	0.13	2025	35000	1435	45	3050	2946	73	31	45	2540	117	45	2240	2085	103	52	45
Beltline Road																		

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HTR = HEAVY TRUCK VOLUME

ANALYST: Peter Schuytema
CHECKED BY:
FILE: BELTALTX.MDB

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative X-1

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	AVERAGE DAY TRKS	AVERAGE DAY SP	PEAK HOUR VOL	PEAK HOUR AUTO	PEAK HOUR MTR	PEAK HOUR HTR	PEAK HOUR SP	AVERAGE HOUR VOL	AVERAGE HOUR TRKS	AVERAGE HOUR SP	PEAK TRUCK HOUR VOL	PEAK TRUCK HOUR AUTO	PEAK TRUCK HOUR MTR	PEAK TRUCK HOUR HTR	PEAK TRUCK HOUR SP
020	0.09	2005	24400	1000	45	2120	2048	53	19	45	1730	78	45	1500	1400	72	28	45
020	0.09	2025	46000	1886	45	4000	3864	100	36	44	3260	147	45	2830	2640	136	54	45
Beltline Road																		
021	0.32	2005	11100	389	45	980	946	26	8	45	740	30	45	640	604	33	3	45
021	0.32	2025	32800	1141	45	2830	2731	76	23	42	2130	85	45	1830	1730	93	7	45
Pioneer Parkway Extension																		
022	0.25	2005	0	0	45	0	0	0	0	45	0	0	45	0	0	0	0	45
022	0.25	2025	34400	1204	45	2990	2897	81	12	37	2150	88	45	1750	1629	100	21	45
Beltline Hwy Westbound																		
023	0.14	2005	17500	718	45	1520	1469	36	15	45	1260	58	45	1030	940	68	22	45
023	0.14	2025	27100	1111	45	2360	2279	57	24	45	1960	90	45	1600	1460	106	34	45
Beltline Hwy Westbound																		
024	0.12	2005	14900	581	45	1300	1260	31	9	45	1080	52	45	850	781	57	12	45
024	0.12	2025	22200	866	45	1940	1879	47	14	45	1610	77	45	1270	1167	85	18	45
Beltline Hwy Westbound																		
025	0.09	2005	9900	386	45	860	837	20	3	45	710	35	45	540	491	43	6	45
025	0.09	2025	15500	604	45	1350	1314	31	5	45	1120	55	45	840	764	66	10	45
Beltline Hwy Westbound																		
026	0.38	2005	9900	386	55	860	837	20	3	55	710	35	55	540	491	43	6	55
026	0.38	2025	15500	604	55	1350	1314	31	5	55	1120	55	55	840	764	66	10	55
Beltline Hwy Westbound																		
027	0.42	2005	28700	2468	27	2500	2323	70	107	27	2110	198	27	1550	1285	116	149	27
027	0.42	2025	37500	3225	27	3260	3029	91	140	29	2750	258	27	2020	1675	151	194	27
I-5 Southbound																		
028	1.00	2005	22000	4158	55	1920	1559	94	267	55	1760	391	55	1650	1170	163	317	55
028	1.00	2025	37500	7088	55	3260	2647	160	453	55	2990	664	55	2800	1985	277	538	55
I-5 Southbound																		
029	0.52	2005	14900	3442	55	1300	980	72	248	55	1220	342	55	1250	851	115	284	55
029	0.52	2025	25200	5821	55	2180	1644	120	416	55	2050	573	55	2090	1424	192	474	55

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TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative X-1

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	TRKS	SP	PEAK HOUR VOL	AUTO	MTR	HTR	SP	AVERAGE HOUR VOL	TRKS	SP	PEAK TRUCK HOUR VOL	AUTO	MTR	HTR	SP
I-5 Southbound																		
030	0.28	2005	19900	3642	55	1730	1392	85	253	55	1590	351	55	1570	1137	132	301	55
030	0.28	2025	31900	5838	55	2770	2230	136	404	55	2550	563	55	2520	1824	212	484	55
I-5 Southbound																		
031	0.81	2005	32200	4894	55	2800	2380	109	311	55	2470	420	55	2480	1905	191	384	55
031	0.81	2025	45200	6870	55	3920	3332	153	435	55	3460	588	55	3470	2665	267	538	55
I-5 Northbound																		
032	0.62	2005	37800	4687	55	3290	2882	86	322	55	2690	369	55	2200	1742	119	339	55
032	0.62	2025	52400	6498	55	4560	3994	119	447	55	3730	512	55	3050	2415	165	470	55
I-5 Northbound																		
033	0.47	2005	18000	3006	55	1570	1296	46	228	55	1260	229	55	1080	800	45	235	55
033	0.47	2025	29100	4860	55	2540	2098	74	368	55	2030	370	55	1750	1295	74	381	55
I-5 Northbound																		
034	0.30	2005	22700	3768	55	1980	1673	61	246	55	1620	285	55	1430	1072	86	272	55
034	0.30	2025	36200	6009	55	3160	2670	98	392	55	2590	455	55	2280	1710	137	433	55
I-5 Northbound																		
035	1.00	2005	25300	3921	55	2200	1870	68	262	55	1810	297	55	1610	1236	97	277	55
035	1.00	2025	41200	6386	55	3580	3043	111	426	55	2940	483	55	2620	2012	157	451	55
I-5 South to Beltline West R																		
036	0.22	2005	7100	703	45	620	579	22	19	45	540	55	45	410	324	49	37	45
036	0.22	2025	12300	1218	45	1080	1009	39	32	44	940	96	45	710	562	84	64	45
I-5 North to Beltline West F																		
037	0.21	2005	19800	1703	55	1720	1582	43	95	55	1440	138	55	1120	948	58	114	55
037	0.21	2025	23300	2004	55	2020	1858	51	111	53	1690	162	55	1320	1116	69	135	55
I-5 North to Beltline West F																		
038	0.50	2005	13700	1438	55	1190	1085	31	74	55	1000	115	55	740	596	43	101	55
038	0.50	2025	14500	1522	55	1260	1149	33	78	55	1060	121	55	780	629	45	106	55
I-5 North to Beltline West F																		
039	0.19	2005	18800	2068	55	1640	1496	49	95	55	1400	165	55	1010	791	79	140	55

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ANALYST: Peter Schuytema
CHECKED BY: _____
FILE: BELTALTX.MDB

TRANSPORTATION PLANNING ANALYSIS UNIT
EIS TRAFFIC DATA

PROJECT: I-5/Beltline Interchange Project
LOCATION: Springfield
ALTERNATIVE: Alternative X-1

PRINTING DATE: Feb 9, 2001
UNIT: English

SECT	DIST	YEAR	AVERAGE DAY VOL	AVERAGE DAY TRKS	AVERAGE DAY SP	PEAK HOUR VOL	PEAK HOUR AUTO	PEAK HOUR MTR	PEAK HOUR HTR	PEAK HOUR SP	AVERAGE HOUR VOL	AVERAGE HOUR TRKS	AVERAGE HOUR SP	PEAK TRUCK HOUR VOL	PEAK TRUCK HOUR AUTO	PEAK TRUCK HOUR MTR	PEAK TRUCK HOUR HTR	PEAK TRUCK HOUR SP
039	0.19	2025	22000	2420	55	1920	1751	58	111	53	1640	193	55	1190	932	93	165	55
Beltline East to I-5 North/So																		
040	0.24	2005	17000	2074	55	1480	1354	49	77	55	1260	152	55	1270	1011	117	142	55
040	0.24	2025	20400	2489	55	1860	1702	61	97	55	1590	191	55	1600	1274	147	179	55
Beltline East to I-5 South Lo																		
041	0.55	2005	4700	761	25	400	368	16	16	25	360	54	25	350	273	42	35	25
041	0.55	2025	7200	1166	25	620	570	25	25	26	550	84	25	540	422	64	54	25
I-5 South to Beltline West R																		
042	0.42	2005	5100	632	45	440	402	16	22	45	390	49	45	270	200	31	39	45
042	0.42	2025	7500	930	45	660	604	24	32	45	590	73	45	410	303	48	59	45
Beltline West to I-5 South R																		
043	0.46	2005	12300	1316	45	1080	986	31	63	44	910	105	45	930	753	67	110	45
043	0.46	2025	13200	1412	45	1160	1059	34	67	44	970	113	45	1000	810	72	118	45
I-5 North to Beltline East Ra																		
044	0.24	2005	6100	256	45	530	508	11	11	45	440	22	45	390	361	16	13	45
044	0.24	2025	8800	370	45	760	728	16	16	45	630	32	45	550	509	22	19	45
Beltline West to I-5 North R																		
045	0.30	2005	2600	138	45	220	208	6	6	45	190	6	45	170	152	10	8	45
045	0.30	2025	4900	260	45	420	398	11	11	45	350	12	45	330	294	20	16	45
Beltline West to I-5 South L																		
046	0.29	2005	5000	195	25	440	423	11	6	25	370	17	25	320	300	14	6	25
046	0.29	2025	6700	261	25	580	557	15	8	25	480	23	25	420	394	18	8	25
I-5 South to Beltline West R																		
047	0.28	2005	2000	70	45	180	174	6	0	45	150	6	45	130	112	16	2	45
047	0.28	2025	4800	168	45	420	406	14	0	44	350	15	45	300	257	37	6	45
Game Farm Road S																		
048	0.25	2005	0	0	35	0	0	0	0	35	0	0	35	0	0	0	0	35
048	0.25	2025	7000	84	35	600	597	2	1	29	540	5	35	540	512	19	9	35

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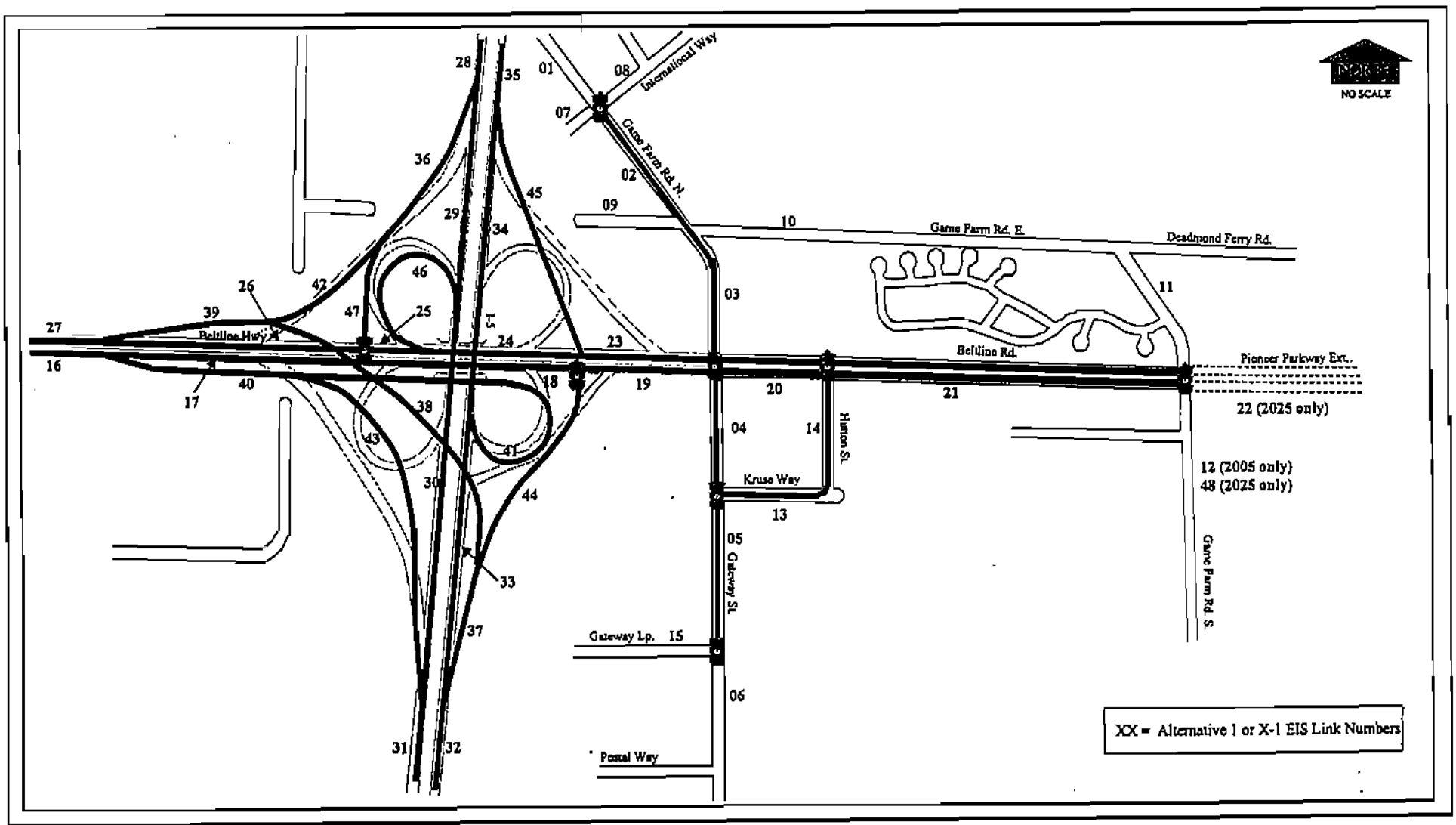
ANALYST: Peter Schuytema
CHECKED BY:
FILE: BELTALTX.MDB



OREGON DEPARTMENT OF TRANSPORTATION

TPAU TRANSPORTATION PLANNING ANALYSIS UNIT

Beltline Interchange Project - Alternative 1 & X-1 EIS Link Numbers	FILE : Beltline Int—.ppt	Prepared By: Peter L. Schuytema	FIGURE D1
	DATE : 1/12/01	Reviewed By: Brian G. Dunn, P.E.	

APPENDIX F

Level-of-Service Descriptions

Level of Service Descriptions for Basic Freeway Sections, Weaving Areas, Ramp Junctions, and Signalized and Unsignalized Intersections

The following levels of service description excerpts were obtained from the Highway Capacity Manual, Special Report 209, Third Edition, 1997.

Basic Freeway Sections

Although speed is a major indicator of service quality to drivers, freedom to maneuver within the traffic stream and proximity to other vehicles are equally noticeable concerns. These other concerns are related to the *density* of the traffic stream. Furthermore, unlike speed, density increases as flow increases up to capacity, resulting in a measure of effectiveness that is sensitive to a broad range of flows. For these reasons, density is the parameter used to define levels of service for basic freeway sections. The ranges of density used to define levels of service are as follows:

LOS Criteria for Basic Freeway Sections

Level of Service	LOS Density Range (PC/MI/LN)
A	0 – 10.0
B	10.1 – 16.0
C	16.1 – 24.0
D	24.1 – 32.0
E	32.1 – 45.0
F	> 45.0

LOS A describes free-flow operations. Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. Even at the maximum density for LOS A, the average spacing between vehicles is about 530 ft, or 26 car lengths, which affords the motorist a high level of physical and psychological comfort. The effects of incidents or point breakdowns are easily absorbed at this level.

LOS B represents reasonably free flow, and free-flow speeds are maintained. The lowest average spacing between vehicles is about 330 ft, or 17 car lengths. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high. The effects of minor incidents and point breakdowns are still easily absorbed.

LOS C provides for flow with speeds at or near the free-flow speed of the freeway. Freedom to maneuver within the traffic stream is noticeably restricted at LOS C, and lane changes

require more care and vigilance on the part of the driver. Minimum average spacings are in the range of 220 ft, or 11 car lengths. Minor incidents may still be absorbed, but the local deterioration in service will be substantial. Queues may be expected to form behind any significant blockage.

LOS D is the level at which speeds begin to decline slightly with increasing flows. In this range, density begins to increase somewhat more quickly with increasing flow. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels. Even minor incidents can be expected to create queuing, because the traffic stream has little space to absorb disruptions. Minimum average vehicle spacings are about 165 ft, or eight car lengths.

At its highest density value, *LOS E* describes operation at capacity. Operations at this level are volatile, there being virtually no usable gaps in the traffic stream. Vehicles are spaced at approximately six car lengths, leaving little room to maneuver within the traffic stream at speeds that are still over 49 mph. Any disruption to the traffic stream, such as vehicles entering from a ramp or a vehicle changing lanes, can establish a disruption wave that propagates throughout the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate even the most minor disruptions, and any incident can be expected to produce a serious breakdown with extensive queuing. Maneuverability within the traffic stream is extremely limited, and the level of physical and psychological comfort afforded the driver is poor.

LOS F describes breakdowns in vehicular flow. Such conditions generally exist within queues forming behind breakdown points. Such breakdowns occur for a number of reasons:

- Traffic incidents cause a temporary reduction in the capacity of a short segment, so that the number of vehicles arriving at the point is greater than the number of vehicles that can move through it.

- Points of recurring congestion exist, such as merge or weaving areas and lane drops where the number of vehicles arriving is greater than the number of vehicles discharged.

- In forecasting situations, any location where the projected peak-hour (or other) flow rate exceeds the estimated capacity of the location presents a problem.

Note that in all cases, breakdown occurs when the ratio of demand to actual capacity or the ratio of forecast demand to estimated capacity exceeds 1.00. Operations immediately downstream of such a point, however, are generally at or near capacity, and downstream operations improve (assuming that there are no additional downstream bottlenecks) as discharging vehicles move away from the bottleneck.

It should be noted that LOS F operations within a queue are the result of a breakdown or bottleneck at a downstream point. LOS F is also used to describe both conditions at the point of the breakdown or bottleneck and the operations within the queue that forms upstream.

Weaving Areas

Level of service in weaving areas is related to the average density of all vehicles in the section. Average density in the weaving area is computed by finding the average (space mean) speed of all vehicles in the weaving section and then estimating density as total flow divided by average (space mean) speed.

LOS Criteria for Weaving Areas

Level of Service	Freeway Weaving Area (PC/MI/LN)	Multilane and C-D Weaving Area (PC/MI/LN)
A	10	12
B	20	24
C	28	32
D	35	36
E	≤ 43	≤ 40
F	> 43	> 40

In general, these criteria allow for slightly higher densities at any given LOS threshold than on a comparable basic freeway or multilane highway section. This follows the philosophy that drivers expect higher densities in weaving areas relative to those on basic freeway or multilane highway segments. The LOS E-F boundary does not apply this approach. Rather, it is thought that breakdown will occur at slightly lower densities than on basic sections because of the additional turbulence resulting from weaving movements.

Ramp Junctions

LOS A through E for ramp-freeway terminals is based on the density in the influence area of the ramp and the expectation that no breakdown will occur. LOS F signifies that a breakdown condition exists or is expected to exist.

LOS Criteria for Ramp-Freeway Junction Areas

Level of Service	Maximum Density (Primary Measure) (PC/MI/LN)	Minimum Speed (Secondary Measure) (MPH)
A	10	58
B	20	56
C	28	52
D	35	46
E	> 35	42
F	n/a	n/a

LOS A represents unrestricted operations. Density is low enough to permit merging and diverging maneuvers without disruption to through vehicles. There is virtually no noticeable turbulence in the ramp influence area, and speeds remain close to the expected basic freeway section level.

At *LOS B*, merging and diverging maneuvers become noticeable to through drivers, and minimal levels of turbulence exist. Merging drivers must adjust their speeds to smoothly fill available gaps, as do diverging drivers making lane changes within the ramp influence area. Speeds of vehicles in the influence area begin to decline slightly.

At *LOS C*, average speed within the ramp influence area begins to decline as the level of merging or diverging turbulence becomes noticeable. Both freeway and on-ramp vehicles begin to adjust their speeds to accommodate smooth merging maneuvers. In diverge areas, vehicles begin to slow to allow lane-changing as off-ramp vehicles approach the diverge. Driving conditions are still relatively comfortable at this level.

At *LOS D*, turbulence levels become intrusive, and virtually all vehicles slow to accommodate merging or diverging maneuvers. Some ramp queues may form at heavily used on-ramps, but freeway operation remains stable.

LOS E represents conditions approaching and reaching capacity operation. Speeds reduce to the low 40s (mph), and the turbulence of merging and diverging maneuvers becomes intrusive to all drivers in the influence area. Flow levels approach capacity limits, and small changes in demand or disruptions within the traffic stream can cause both ramp and freeway queues to begin forming.

LOS F represents breakdown, or unstable, operation. At this level, approaching demand flows exceed the discharge capacity of the downstream freeway (and ramp, in the case of diverge areas). Queues are visibly formed on the freeway and on-ramps and continue to grow as long as approaching demand exceeds the discharge capacity of the section. Freeway queues are not the same as intersection or other stopped queues.

Signalized Intersections

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents.

LOS Criteria for Signalized Intersections

Level of Service	Control Delay per Vehicle (SEC)
A	≤ 10
B	> 10 and ≤ 20
C	>20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

LOS A describes operations with very low control delay, up to 10 seconds per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

LOS B describes operations with control delay greater than 10 and up to 20 seconds per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.

LOS C describes operations with control delay greater than 20 and up to 35 seconds per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D describes operations with control delay greater than 35 and up to 55 seconds per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high *v/c* ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LOS E describes operations with control delay greater than 55 and up to 80 seconds per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high *v/c* ratios. Individual cycle failures are frequent occurrences.

LOS F describes operations with control delay in excess of 80 seconds per vehicle. This level, considered to be unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high *v/c* ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

Two-Way Stop Sign Control (TWSC) Intersections

The level of service for a TWSC intersection is determined by the computed or measured control delay and is defined for each minor movement. Level of service is not defined for the intersection as a whole.

LOS Criteria for TWSC Intersections

Level of Service	Delay Range (SEC/VEH)
A	≤ 10
B	> 10 and ≤ 15
C	>15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

The LOS criteria for TWSC intersections are somewhat different than the criteria used for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection would be designed to carry higher traffic volumes than an unsignalized intersection. In addition, a number of driver behavior considerations combine to make delays at signalized intersections less onerous than delays at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, whereas drivers on the minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at an unsignalized intersection versus that at signalized intersections. For these reasons, it is considered that the control delay threshold for any given level of service would be less for an unsignalized intersection than it would be for a signalized intersection.

All-Way Stop Sign Control (AWSC) Intersections

The LOS criteria for AWSC intersections are shown below. The LOS breakpoints for AWSC intersections are somewhat different than the criteria used for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an AWSC intersection. Thus a higher level of control delay is acceptable at a signalized intersection for the same level of service.

LOS Criteria for AWSC Intersections

Level of Service	Delay Range (SEC/VEH)
A	≤ 10
B	> 10 and ≤ 15
C	>15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Appendix C
Springfield Development Code
Allowed Uses by Zone

ARTICLE 16

RESIDENTIAL ZONING DISTRICTS

16.010 ESTABLISHMENTOF RESIDENTIAL ZONING DISTRICTS.

In order to fully implement the policies of the Metro Plan, regulate the use of land, structures and buildings, and protect the public health, safety and welfare, the following zoning districts are established in this Article:

(1) **DR LOW DENSITY RESIDENTIAL DISTRICT.** The LDR District is intended to fully implement the Metro Plan low density residential designation, any applicable refinement plan and establishes sites for Low Density Residential development where the minimum level of urban services are provided. The maximum dwelling units per developable acre permitted is 10, consistent with the provisions of this Code. Fractions will be rounded down to the next whole number.

(2) **MDR MEDIUM DENSITY RESIDENTIAL DISTRICT.** The MDR District is intended to fully implement the Metro Plan Medium Density Residential designation, any applicable refinement plan and establishes sites for medium density residential development where the minimum level of urban services are provided. Single family or multiple family dwellings are permitted with a minimum density of more than 10 units per developable acre and a maximum density of 20 units per developable acre, consistent with the provisions of this Code. Fractions will be rounded down to the next whole number. Land divisions shall not be used to diminish the minimum density standard.

(3) **HDR HIGH DENSITY RESIDENTIAL DISTRICT.** The HDR District is intended to fully implement the Metro Plan High Density Residential designation, any applicable refinement plan and establishes sites for high-density residential development where the minimum level of urban services are provided. Single family or multiple family dwellings are permitted with a minimum density of more than 20 units per developable acre and a maximum density of 30 units per developable acre, consistent with the provisions of this Code. Fractions will be rounded down to the next whole number. Land divisions shall not be used to diminish the minimum density standard.

16.020 SCHEDULE OF USE CATEGORIES

The following specific uses are permitted in the districts as indicated, subject to the provisions. additional restrictions and exceptions set forth in this Code:

"P" = PERMITTED USE, subject to the standards of this Code; may be processed under Type I. II or III procedures (Please refer to Article 3 of this Code).

"S" = SPECIAL USE, subject to special locational and siting standards to be met prior to being deemed a permitted use; may be processed under Type I. II or III procedures (Please refer to Article 3 of this Code).

"D" = DISCRETIONARY USE, may or may not be permitted, based upon the application of general criteria; may be subject to special locational and siting standards to be met prior to being deemed a permitted use; processed Type III procedures (Please refer to Articles 3 and 10 of this Code).

- = NOT PERMITTED

*** = SITE PLAN REVIEW REQUIRED**

USE CATEGORIES/USES			DISTRICTS LDR	MDR	HDR
(1)	Accessory structures (Section 16.100(1)		S	S	S
(2)	Agricultural Uses				
	(a)	Cultivation of undeveloped land	P	P	P
	(b)	Temporary sales/display of produce (Section 16.100(3))	S	-	
	(c)	Agricultural structures	P	P	P
(3)	Churches (Section 16.100(2))		D*	D*	D*
(4)	Commercial Uses				
	(a)	Professional offices (Section 16.100(11))	S*	S*	S*
	(b)	Residential dwelling units as temporary sales offices (Section 16.100(12))	S	S	S
(5)	Dwellings				
	(a)	Attached single-family dwellings	D*	P*	P*
	(b)	Cluster Development (Section 16.100(3))	S	S	S
	(c)	Condominiums	S*	P*	P*
	(d)	Detached single-family dwellings	P	P	P
	(e)	Duplexes (Section 16.100(5))	S	P	P
	(f)	Multiple family dwelling including triplexes. four-plexes. quads. guints. and apartment complexes over 4 units.	-	P*	P*
	(g)	RVs as a residential use	-	-	-

	(h)	Prefabricated dwellings	P	P	P*
(6)	Day Care Facilities (Section 16.100(4))				
	(a)	Day Care Home -- 1 to 5 children	P	P	P
	(b)	Day Care Group Home – 6 to 12 children	P	P	P
	(c)	Day Care Center – 13 or more children (abutting an arterial street)	S*	S*	S*
	(d)	Day Care Center – 13 or more children (abutting a collector or local street)	D*	S*	S*
	(e)	Adult Day Care – facilities up to 12 adults	P	P	P
	(f)	Adult Day Care – facilities with more than 13 adults (abutting an arterial street)	S*	S*	S*
	(g)	Adult Day Care – facilities with more than 13 adults (abutting a collector or local street)	D*	S*	S*
(7)	Educational facilities – Public / Private elementary/middle schools. (Section 16.100(9))				
	(a)	1 to 5 students in a private home (in a 24 hour period)	P*	P*	P*
	(b)	6 or more students (Section 10.030(4))	D*	D*	D*
(8)	Home Occupation (Section 10.030(6))		S	S	S
(9)	Group Care Facilities (Section 16.100(7))				
	(a)	Foster homes for over 5 children	P*	P*	P*
	(b)	Residential care facilities with more than 15 persons include: Group care homes. congregate care facilities. nursing homes and retirement homes	D*	S*	S*
(10)	Halfway Houses		-	D*	D*
	(a)	Residential Facilities – 6 to 15 persons	P	P*	P*
	(b)	Residential Home – 5 or fewer persons	P	P	P

	(c)	Shelter Homes for abused and battered persons	P	P*	P*
(11)	Manufactured Dwellings				
	(a)	Manufactured dwelling park (Article 36)	S*	-	-
	(b)	Manufactured home (Article 36)	P	P	-
	(c)	Manufactured home subdivision (Articles 35 & 36)	P	P	-
	(d)	Mobile home (Article 36)	P	-	-
	(e)	Manufactured home as a temporary residential use (Article 36)	S*	-	-
	(f)	Residential trailers (Article 36)	P	-	-
(12)	Parks – Neighborhood and private (Section 16.100(8))		D*	D*	D*
(13)	Public Utility Facilities (Section 16.100(10))				
	(a)	High impact facilities	S*	S*	S*
	(b)	Low impact facilities	P	P	P
(14)	Transient accommodations (Section 16.100(14))				
	(a)	Bed and breakfast facilities	S*	S*	S*
	(b)	Boarding and rooming houses - 1 to 2 bedrooms	P*	P*	P*
	(c)	Boarding and rooming houses 3 to 5 bedrooms more than 5 bedrooms	S* -	P* P*	P* P*
	(d)	Emergency shelter homes	S*	S*	S*
	(e)	Youth hostels	-	D*	D*
	(f)	Tree cutting and removal (Article 38)	S	S	S
	(g)	Certain wireless telecommunications Systems Facilities (Article 32). Refer to Section 32.130 for siting standards and review process in all residential zoning districts.			

ARTICLE 18

COMMERCIAL ZONING DISTRICTS

18.010 ESTABLISHMENT OF COMMERCIAL ZONING DISTRICTS.

In order to fully implement the policies of the Metro Plan, regulate the use of land, structures and buildings, and protect the public health, safety and welfare, the following zoning districts are established in this Article:

(1) **NC NEIGHBORHOOD COMMERCIAL DISTRICT.** The NC District is intended to fully implement Metro Plan Text addressing Neighborhood Commercial facilities and any applicable refinement plan. This district designates sites up to 3 acres in size to provide day to day commercial needs for support populations up to 4,000 people. NC developments should enhance rather than intrude on the character of a neighborhood by using landscaping, building materials and design features that are similar to and in proportion with residential uses. New NC zoning districts larger than 1.5 acres shall be limited to collector and arterial streets. Existing NC zoning districts on local streets shall not be allowed to expand beyond 1.5 acres unless the development area abuts a collector or arterial street.

(2) **CC COMMUNITY COMMERCIAL DISTRICT.** The CC District is intended to fully implement the Metro Plan Community Commercial Center designation and any applicable refinement plan. This district designates sites to provide for a wide range of retail sales, service and professional office use. This district also includes all existing strip commercial areas.

(3) **MRC MAJOR RETAIL COMMERCIAL DISTRICT.** The MRC District is intended to fully implement the Metro Plan Major Retail Center designation and any applicable refinement plan. This district may also be applied to large, vacant tracts of CC Community Commercial land that are suitable for the siting of new shopping centers, in which case the minimum development area shall be 20 acres.

(4) **GO GENERAL OFFICE DISTRICT.** The GO district is intended to encourage appropriate office development and to implement neighborhood refinement plans. This district is designed to be a transition zone, providing a buffer between residential and more intensive commercial development at the boundaries of a Community Commercial or Major Retail Commercial designation. A development area of at least one acre shall be required.

18.020 SCHEDULE OF USE CATEGORIES.

The following uses are permitted in the districts as indicated subject to the provisions, additional restrictions and exceptions set forth in this Code.

"P"' = PERMITTED USE, subject to the standards of this Code: may be processed under Type I, II or III procedures (Please refer to Article 3 of this Code).

"S" = **SPECIAL USE,** subject to special locational and siting standards to be met prior to being deemed a permitted use; may be processed under Type I, II or III procedures (Please refer to Article 3 of this Code).

"D" = **DISCRETIONARY USE,** may or may not be permitted, based upon the application of general criteria; may be subject to special locational and siting standards to be met prior to being deemed a permitted use; processed under Type III procedures (Please refer to Articles 3 and 10 of this Code).

- = **NOT PERMITTED**

SITE PLAN REVIEW SHALL BE REQUIRED unless specifically exempted elsewhere in this Code.

CATEGORIES / USES			DISTRICTS			
			NC	CC	MRC	GO
(1)	Agricultural and animal sales and service (Section 18.110(1)):					
	(a)	Agricultural cultivation of undeveloped land	-	P	P	-
	(b)	Animal hospitals, animal clinics and kennels	-	S	-	-
	(c)	Feed and seed supplies	-	P	S	-
	(d)	Garden supplies	-	P	S	-
(2)	Automotive, marine and mobile/manufactured homes sales, service, storage and repair (Section 18.110(2)):					
	(a)	Auto and truck dealers, new	-	S	S	-
	(b)	Auto and truck dealers, used	-	S	-	-
	(c)	Boat sales and accessories	-	S	S	-
	(d)	Car Washes	-	P	-	-
	(e)	Garage, repair	-	S	D	-
	(f)	Manufactured home and RV sales including campers, canopies and other accessories	-	S	-	-
	(g)	Motorcycle sales and repair	-	P	S	-
	(h)	Private parking lots and garages	-	P	P	-

(i)	Rental, automotive and truck	-	**S**	**S**	-
(j)	Service stations	**S**	**P**	**S**	-
(k)	Tires, batteries and accessories	-	**P**	**S**	-

(3) Business and professional offices and personal services (Section 18.110(3))

(a)	Accountants, bookkeepers and auditors	**P**	**P**	**P**	**P**
(b)	Advertising / marketing agencies	**P**	**P**	**P**	**P**
(c)	Architects, landscape architects and designers	**P**	**P**	**P**	**P**
(d)	Art Studios, fine	**P**	**P**	**P**	**P**
(e)	Art restoration	**P**	**P**	**P**	**P**
(f)	Attorneys	**P**	**P**	**P**	**P**
(g)	Audio / video production studio	**P**	**P**	**P**	-
(h)	Authors / composers	**P**	**P**	**P**	**P**
(i)	Banks, credit unions and savings and loans	**P**	**P**	**P**	**P**
(j)	Barber and beauty shops	**P**	**P**	**P**	-
(k)	Business Schools	**P**	**P**	**P**	-
(l)	Catering Services	**P**	**P**	**P**	-
(m)	Clinics and research / processing laboratories	**P**	**P**	**P**	**P**
(n)	Collection agencies	**P**	**P**	**P**	**P**
(o)	Commodity contract brokers and dealers	**P**	**P**	**P**	**P**

(p)	Computer and information services	**P**	**P**	**P**	**P**
(q)	Day car facilities	**S**	**S**	**S**	**S**
(r)	Dentists	**P**	**P**	**P**	**P**
(s)	Detective and protective agencies	**P**	**P**	**P**	**P**
(t)	Diaper services	**P**	**P**	**P**	-
(u)	Doctors	**P**	**P**	**P**	**P**
(v)	Drafting, graphic and copy services	**P**	**P**	**P**	**P**
(w)	Employment agencies and services	**P**	**P**	**P**	**P**
(x)	Engineers and surveyors	**P**	**P**	**P**	**P**
(y)	Financial Planning, investment services	**P**	**P**	**P**	**P**
(z)	Funeral services	**P**	**P**	**P**	-
(aa)	Graphic art services	**P**	**P**	**P**	**P**
(bb)	Gymnastics instruction	**P**	**P**	**P**	**P**
(cc)	House cleaning services	**P**	**P**	**P**	**P**
(dd)	Insurance carriers, agents, brokers and services	**P**	**P**	**P**	**P**
(ee)	Interior decorator and designers	**P**	**P**	**P**	**P**
(ff)	Laundry, dry cleaners, including self service, and ironing services	**P**	**P**	**P**	-
(gg)	Loan companies, other than banks	**P**	**P**	**P**	**P**
(hh)	Locksmiths	**P**	**P**	**P**	-
(ii)	Lumber brokers	**P**	**P**	**P**	**P**
(jj)	Mailing services / mail order sales	**P**	**P**	**P**	**P**

(kk)	Management and planning consultants	P	P	P	P
(ll)	Manufactured unit as a temporary construction office, security quarters or general office (36.160(1), (3) and (4))	S	S	S	S
(mm)	Manufactured home as a manufactured home sales office (36.160(2))	S	S	S	-
(nn)	Motion picture studio / distribution	P	P	P	-
(oo)	Non-profit organizations	P	P	P	P
(pp)	Opticians	P	P	P	P
(qq)	Performing arts instruction	P	P	P	P
(rr)	Photocopying	P	P	P	P
(ss)	Photography studios	P	P	P	P
(tt)	Planner. land use	P	P	P	P
(uu)	Printing / publishing	P	P	P	P
(vv)	Private investigator	P	P	P	P
(ww)	Psychologists and counselors	P	P	P	P
(xx)	Real estate sales and management	P	P	P	P
(yy)	Scientific and educational research	P	P	P	P
(zz)	Security systems services	P	P	P	P
(aaa)	Self-defense studio	P	P	P	P
(bbb)	Shoe repair	P	P	P	-
(ccc)	Stenographers and secretarial services	P	P	P	P
(ddd)	Stockbrokers	P	P	P	P
(eee)	Swimming pool cleaning				

		P	**P**	**P**	**P**
(fff)	Tailors	**P**	**P**	**P**	-
(ggg)	Tanning salons	**P**	**P**	**P**	**P**
(hhh)	Title companies	**P**	**P**	**P**	**P**
(iii)	Telephone answering services	**P**	**P**	**P**	**P**
(jjj)	Travel agencies	**P**	**P**	**P**	**P**
(kkk)	TV and radio broadcasting studios	**P**	**P**	**P**	**P**
(lll)	Typing services	**P**	**P**	**P**	**P**
(mmm)	Communications towers, including antennas and relay equipment.	-	**D**	**D**	-
	Certain Wireless Telecommunications Systems Facilities (Article 32). Refer to Section 32.130 for siting standards and review process in all commercial zoning districts.				
(nnn)	Window cleaning	**P**	**P**	**P**	-
(4)	Eating and drinking establishments (Section 18.110(12)):				
(a)	Cocktail lounges	**P**	**P**	**P**	-
(b)	Delicatessens and sit down restaurants including espresso shops	**P**	**P**	**P**	**S**
(c)	Drive up restaurants and espresso shops	**P**	**P**	**P**	-
(d)	Taverns and brew pubs	**D**	**P**	**P**	-
(5)	Public utility facilities (section 18.110(4)):				
(a)	High impact facilities	**S**	**S**	**S**	-
(b)	Low impact facilities	**P**	**P**	**P**	**P**

(6) Recreational facilities (Section 18.110(5)):

(a)	Amusement park	**P**	**P**	**P**	-
(b)	Arcades	**P**	**P**	**P**	-
(c)	Art studios, performing	**P**	**P**	**P**	-
(d)	Athletic field	**P**	**P**	**P**	-
(e)	Auditoriums	**S**	**S**	**P**	-
(f)	Batting cages	**S**	**S**	**S**	-
(g)	Bingo parlors	**S**	**S**	**S**	-
(h)	Bowling alleys	**P**	**P**	**P**	-
(i)	Dance halls	**S**	**S**	**S**	-
(j)	Exercise studios	**P**	**P**	**P**	**S**
(k)	Exhibition hall	**P**	**P**	**P**	-
(l)	Golf driving range	**P**	**P**	**P**	-
(m)	Gyms and athletic clubs	**P**	**P**	**P**	-
(n)	Hot tub establishments	**P**	**P**	**P**	-
(o)	Hydrotubes	**S**	**S**	**S**	-
(p)	Miniature auto race track	**P**	**P**	**P**	-
(q)	Miniature golf	**P**	**P**	**P**	-
(r)	Movie theaters, indoor	**P**	**P**	**P**	-
(s)	Movie theaters, drive-in	-	**D**	-	-
(t)	Non Alcoholic Night Club	**S**	**S**	**S**	-

	(u)	Off-track betting facility	**P**	**P**	**P**	-
	(v)	Parks, private and public	**P**	**P**	**P**	-
	(w)	Playground	**P**	**P**	**P**	-
	(x)	Play / tot lot	**P**	**P**	**P**	**P**
	(y)	Pool halls	**P**	**P**	**P**	-
	(z)	Recreation center	**P**	**P**	**P**	-
	(aa)	Riding stable	**P**	**P**	**P**	-
	(bb)	Rodeos	**P**	**P**	-	-
	(cc)	Shooting range (Also subject to provisions of Springfield Municipal Code, 1997	-	**S**	**S**	-
	(dd)	Skating rinks	**S**	**S**	**S**	-
	(ee)	Stadiums	**P**	**P**	**P**	-
	(ff)	Swimming pools	**P**	**P**	**P**	-
	(gg)	Tennis, racquetball and handball courts	**P**	**P**	**P**	-
	(hh)	Theater, legitimate	**P**	**P**	**P**	-
	(ii)	Velodromes	**P**	**P**	**P**	-
(7)	Religious, social and public institutions:					
	(a)	Branch educational facilities	**P**	**P**	**P**	-
	(b)	Charitable services	**P**	**P**	**P**	-
	(c)	Churches, temples and weekly religious schools	**P**	**P**	**P**	**P**
	(d)	Community and senior centers	**P**	**P**	**P**	-
	(e)	Fraternal and civic organizations	**P**	**P**	**P**	-

	(f)	Hospitals	P	P	P	-
	(g)	Labor unions	P	P	P	-
	(h)	Public offices	P	P	P	P
	(i)	Private / Public Elementary and Middle Schools (18.110(14))	D*	D*	-	-
(8)	Residential uses in areas designated mixed use in the Metro Plan, Refinement Plans or Mixed Use Districts in this Code (Section 18.110(6))		S	S	S	-
(9)	Retail sales (Section 18.110(7)):					
	(a)	Antiques	P	P	P	S
	(b)	Apparel	P	P	P	S
	(c)	Art galleries and museums	P	P	P	S
	(d)	Art supplies	P	P	P	-
	(e)	Auction / flea markets	S	S	-	-
	(f)	Bakeries	P	P	P	-
	(g)	Bicycles	P	P	P	-
	(h)	Books	P	P	P	S
	(i)	Cameras and photographic supplies	P	P	P	S
	(j)	Candies, nuts and confectioneries	P	P	P	S
	(k)	China, glassware and metal ware	P	P	P	-
	(l)	Cigars and cigarettes	P	P	P	P
	(m)	Computers, calculators and other office machines	P	P		S
	(n)	Convenience stores	P	P	P	S

(o)	Dairy products	**P**	**P**	**P**	-
(p)	Department stores	**P**	**P**	**P**	-
(q)	Drapery, curtains and upholstery	**P**	**P**	**P**	-
(r)	Dry goods and general merchandise	**P**	**P**	**P**	-
(s)	Electrical supplies	**P**	**P**	**P**	-
(t)	Equipment rental and leasing	**P**	**P**	-	-
(u)	Fabrics and accessories	**P**	**P**	**P**	-
(v)	Farm equipment	**P**	**P**	-	-
(w)	Feed, grain and hay	**P**	**P**	-	-
(x)	Film drop off and pick up	**P**	**P**	**P**	-
(y)	Fish	**P**	**P**	**P**	-
(z)	Floor coverings	**P**	**P**	**P**	-
(aa)	Florists	**P**	**P**	**P**	**S**
(bb)	Fruits and vegetables	**P**	**P**	**P**	-
(cc)	Furniture	**P**	**P**	**P**	-
(dd)	Furriers	**P**	**P**	**P**	-
(ee)	Groceries	**P**	**P**	**P**	-
(ff)	Hardware	**P**	**P**	**P**	-
(gg)	Hobby supplies	**P**	**P**	**P**	**S**
(hh)	Household appliances	**P**	**P**	**P**	-
(ii)	Jewelry	**P**	**P**	**P**	**S**
(jj)	Liquidation outlets	**P**	**P**	**P**	-

(kk)	Liquor outlets (State)	**P**	**P**	**P**	-
(ll)	Luggage and leather	**P**	**P**	**P**	**S**
(mm)	Magazines and newspapers	**P**	**P**	**P**	**P**
(nn)	Mail order houses	**P**	**P**	**P**	-
(oo)	Meats	**P**	**P**	**P**	-
(pp)	Medical and dental supplies	**P**	**P**	**P**	**S**
(qq)	Musical instruments and supplies	**P**	**P**	**P**	**S**
(rr)	Novelties and gifts	**P**	**P**	**P**	**S**
(ss)	Office equipment	**P**	**P**	**P**	**S**
(tt)	Paint, glass and wallpaper	**P**	**P**	**P**	-
(uu)	Pharmacies	**P**	**P**	**P**	**S**
(vv)	Pottery	**P**	**P**	**P**	**S**
(ww)	Radios, televisions and stereos	**P**	**P**	**P**	-
(xx)	Second hand and pawn shops	**S**	**S**	**S**	-
(yy)	Sewing machines	**P**	**P**	**P**	-
(zz)	Shoes	**P**	**P**	**P**	-
(aaa)	Small electrical appliances	**P**	**P**	**P**	-
(bbb)	Sporting goods	**P**	**P**	**P**	**S**
(ccc)	Stationary	**P**	**P**	**P**	-
(ddd)	Supermarkets	**P**	**P**	**P**	-
(eee)	Toys	**P**	**P**	**P**	**S**

	(fff)	Transient merchants	**S**	**S**	**S**	-
	(ggg)	Weapons dealers	**P**	**P**	**P**	-
(10)	Small scale repair and maintenance services (Section 18.110(8)):					
	(a)	Business machine repair	**S**	**P**	-	-
	(b)	Disinfecting and extermination service	-	**P**	-	-
	(c)	Electrical appliance repair	**S**	**P**	-	-
	(d)	Furniture repair	**S**	**P**	-	-
	(e)	Janitorial services	-	**P**	-	-
	(f)	Small engine repair	**S**	**P**	-	-
	(g)	Watch repair	**P**	**P**	**P**	-
(11)	Transient accommodations (Section 18.110(9)):					
	(a)	Bed and breakfast facilities	**S**	**P**	-	-
	(b)	Emergency and breakfast facilities	-	**P**	-	-
	(c)	Hotels	-	**P**	**P**	-
	(d)	Motels	-	**P**	**P**	-
	(e)	Youth hostels	**P**	**P**	-	-
	(f)	RV Parks	-	**S**	-	-
(12)	Transportation facilities)Section 18.110(10)):					
	(a)	Bus tenminals	-	**S**	**S**	-
	(b)	Dock. boat ramps and marinas	-	**D**	-	-
	(c)	Heliports	-	**S**	**S**	-

	(d) Helistops		-	S	S	-
(13)	Warehouse commercial retail and wholesale sales (Section 18.110(11)):					
	(a)	Cold storage lockers	-	P	-	-
	(b)	Electrical supplies and contractors	-	P	-	-
	(c)	Floor coverings sales	-	P	-	-
	(d)	Fuel dealers	-	S	-	-
	(e)	Heavy equipment and truck rental/sales	-	S	-	-
	(f)	Indoor storage, other than mini-warehouses, and outdoor storage areas / yards	-	S	-	-
	(g)	Large electrical appliance sales	-	P	P	-
	(h)	Lumber yards and building materials	-	S	-	-
	(i)	Merchandise vending machine operators	-	P	-	-
	(j)	Mini-warehouses	-	S	-	-
	(k)	Plumbing and heating supplies and contractors	-	S	-	-
	(l)	Unfinished furniture	-	P	-	-
	(m)	Uses listed under automotive and retail which are wholesale uses. **(See appropriate section)**				
(14)	Secondary uses serving or related to on-site commercial uses. (Section 18.110(13)):					
	(a)	Manufacture or assembly of goods or products to be sold on premises	-	P	-	-
	(b)	One single family dwelling. attached or detached. as a secondary use.	P	P	-	-

instruments capable of recording vibration displacement, particle velocity, or acceleration and frequency simultaneously in three mutually perpendicular directions.

21.020 CONCEPTUAL DEVELOPMENT PLANS AND MASTER PLANS

A Conceptual Development Plan shall be required for all new CI Districts over 50 acres in size approved after July 6, 2004, unless a Site Plan or Master Plan is proposed for the entire CI District. A Master Plan shall be required when phased developments exceeding 2 years in duration are proposed. A Master Plan shall comply with any applicable approved Conceptual Development Plan or upon approval of a Master Plan or Site Plan for the entire CI District, the Master Plan or Site Plan may supplant and take precedence over an approved Conceptual Development Plan. Master Plan approval for a CI District site shall be in accordance with Article 37 of this Code.

21.030 PROHIBITED USES.

In order to protect the light industrial manufacturing campus environment of the CI District, the following uses shall be prohibited in the CI District.

(1) Heavy industrial uses that involve the primary manufacturing of large volumes of raw materials into refined materials including, but not limited to processing from trees to lumber, wood products or paper; from ores to primary metals; and animal or fish processing in packing plants.

(2) Any use that cannot meet the operational performance standards specified in Section 21.015 of this Article.

(3) Any retail uses, unless permitted as a secondary use as specified in Section 21.050(1) of this Article.

(4) Stand-alone industrial/commercial warehousing, unless permitted as a secondary use as specified in Section 21.050(4) of this Article.

(5) Mini-warehouse storage facilities.

(6) Drive-through facilities.

(7) Medical and dental practitioner offices.

(8) Motor freight terminals.

(9) Moving and storage facilities.

(10) Truck and auto repair and painting facilities

(11) Truck and car washes.

(12) Gas stations.

(13) Motels.

21.040 PRIMARY USES.

The following primary uses are permitted subject to Site Plan Review approval in accordance with Section 31.020 of this Code. The development standards of this Article and any additional provisions, restrictions or exceptions set forth in this Code shall also apply.

(1) Light industrial manufacturing involving the secondary processing of previously prepared materials into components or the assembly of components into finished products. There is no use list for this category of uses. Proposed light industrial manufacturing uses shall comply

with the operational performance standards specified in Section 21.015 of this Article in order for to be considered a permitted use. Large- and medium-scale light industrial manufacturing uses may stand alone. Small-scale light industrial manufacturing uses shall be located within a business park.

(2) No more than 40 percent of the gross acres of a CI District shall be developed as business parks. Business parks shall be 5 acres or more in size. Except as specified in Section 21.150 of this Article, business parks may contain permitted small- and medium-scale light industrial manufacturing uses as well as any permitted primary or secondary uses. Multiple story buildings are encouraged; office/commercial uses may be located above industrial uses. Development standards for business parks shall be in accordance with Sections 21.120 and 21.130 of this Article.

(3) Other commercial and office uses that do not primarily serve the public. The following commercial and office uses shall be permitted within a business park. Uses similar to those specifically listed may be permitted, if the Director determines the proposed use is similar to a permitted use. If the Director cannot make a determination that the proposed use is similar to a permitted use, the applicant may apply for a Formal interpretation in accordance with Article 4 of this Code.

(a) Advertising, marketing, and public relations.

(b) Blueprinting and photocopying.

(c) Call centers that process predominantly inbound telephone calls.

(d) Computer facilities management services

(e) Computer systems design services.

(f) Data processing and related services.

(g) E (electronic)-commerce including mail order houses.

(h) Educational facilities in business parks including, but not limited to, professional, vocational and business schools; and job training and vocational rehabilitation services.

(i) Graphic art services.

(j) Internet and web site and web search portal (includes services and technical support center).

(k) Internet publishing and broadcasting.

(l) Laboratories, including medical, dental and x-ray.

(m) Management, consulting, and public relations offices.

(n) Media productions including but not limited to TV and radio broadcasting studios as well as cable and other program distribution and motion picture production.

(o) Non-profit organization office.

(p) Printing and publishing.

(q) Professional membership and union offices.

(r) Satellite telecommunications.

(s) Software development (includes services and technical support center) and publishing.

(t) Wired or wireless telecommunications carrier offices.

(4) Corporate headquarters, regional headquarters, and administrative offices may be permitted as part of a large-scale light-manufacturing use or located within a business park. Corporate and regional headquarters may also stand alone. The acreage comprising stand alone corporate or regional headquarters site shall be applied to the 40 percent gross acre standard for business parks specified in Subsection (2) of this Section. Corporate and regional headquarters shall have at least 20 or more employees at the time of occupancy.

(5) Mail distribution facilities. The acreage comprising a stand alone mail distribution site shall be applied to the 40 percent gross acre standard for business parks specified in Subsection (2) of this Section.

(6) Large- and medium-scale research and development complexes may stand alone. Stand alone large- and medium-scale research and development complexes shall be considered an industrial component of the CI District. Small-scale research and development complexes shall be located within a business park.

(7) Certain Wireless Telecommunications Systems Facilities as specified in Section 32.130(1)(a) and (b) of this Code.

(8) Agricultural cultivation shall be permitted as an interim use on undeveloped land, provided that spraying, dust, odors, and other side effects of the use do not interfere with the operation of permitted uses in the CI District.

21.050 SECONDARY USES.

The following secondary uses shall be permitted in the CI District. In no case shall a secondary use stand alone or be permitted in the absence of a primary use. Uses similar to those specifically listed may be permitted, if the Director determines the proposed use is similar to a permitted use. If the Director cannot make a determination that the proposed use is similar to a permitted use, the applicant may apply for a Formal Interpretation in accordance with Article 4 of this Code.

(1) The following retail, wholesale and service uses, either alone or in combination, shall not exceed 20 percent of the gross floor area of a building. These uses shall exclude any drive-through facility and shall not primarily serve the public. Except for ATMs, each use shall be limited to 2,500 square feet of gross floor area. Retail, wholesale and service uses include, but are not limited to:

(a) ATM's; banks, savings and loans, and credit unions.

(b) Barber, beauty, nail and tanning shops; and

(c) Building maintenance services.

(d) Day care facilities that meet Children's Services Division (CSD) regulations.

Exception: Day care facilities may exceed the 2,500 square foot standard in order to comply with size requirements specified in ORS 667A.

(e) Eating and drinking establishments including, but not limited to: delicatessens, restaurants, and coffee/espresso shops.

(f) Industrial and professional equipment and supply stores.

(g) Product showrooms, limited to wholesale sales.

(2) Other permitted secondary uses.

(a) Parking lots and parking structures.

(b) Transit stations and stops, exclusive of terminals or transit storage areas.

(c) Outdoor recreation uses and pedestrian amenities including, but not limited to facilities that are provided in association with a primary use within the same development area:

1. Swimming pools.

2. Playgrounds

3. Tennis and other sport courts.

4. Bike paths and pedestrian trails.

5. Pedestrian plazas and similar public spaces.

(d) Low impact public utility facilities.

(3) The following uses are considered accessory components of a permitted primary use.

(a) Employee lounges and dining rooms.

(b) Conference rooms for tenant use.

(c) Central mail room.

(d) Indoor recreation areas including, but not limited to game and craft rooms and exercise and dance studios.

(4) Warehousing shall be permitted only in the following circumstances:

(a) For the storage and regional wholesale distribution of products manufactured in the CI District;

(b) For products used in testing, design, technical training or experimental product research and development in the CI District; and/or

(c) In conjunction with permitted office-commercial uses in the CI District.

Exception: The secondary use status of warehousing is typically determined by a square footage standard which is less than 50 percent of the gross floor area of the primary use, in the CI District, the number of employees at the time of occupancy may also be used to determine secondary use standards status. In this case, the primary use shall have 20 or more employees and the warehousing use shall have fewer employees than the primary use. If the employee standard is met, the warehousing use may have more square footage than the primary use.

21.060 DISCRETIONARY USES.

The following uses shall be permitted subject to Discretionary Use approval, Site Plan Review approval, and other applicable provisions of this Code.

(1) High Impact public facilities.

Exception: If approved in a Conceptual Development Plan, or a Master Plan for the subject CI site, or included in an adopted Public Facilities Plan, high impact public facilities shall be subject only to Site Plan Review approval.

(2) Certain Wireless Telecommunications Systems Facilities as specified in Section 32.130(1)(a) of this Code.

21.070 LOT SIZE AND SETBACK STANDARDS.

(1) The minimum lot size in the CI District shall be 10,000 square feet, with 75 feet of frontage. Panhandle lots shall be prohibited.

Exception:

The Director may waive the requirement that buildable City lots have frontage on a public street when all of the following apply:

(a) The lot or lots have been approved as part of a Development Area Plan, Site Plan, Subdivision or Partition; and

(b) Access has been guaranteed via a private street or driveway by an irrevocable joint use/access agreement.

(2) Except as modified by solar access standards, planted setbacks from the exterior boundaries of the CI District shall be 50 feet where abutting residential districts and 20 feet where, abutting other districts. Building separation shall be 20 feet. Zero lot line structures shall be permitted.

(3) There shall be planted setbacks from property lines of 20 feet in front, street-side, and through-lot rear yards where adjacent to local streets, and 30 feet where adjacent to arterial or collector streets.

(4) The following setback standards also apply:

(a) Where an easement is larger than the required setback standard, no building or above grade structure, except for a fence, shall be built upon or over that easement.

(b) When additional right of way is required, whether by City Engineering standards on file with the City Engineer or the Metro Plan, setbacks shall be based on future right of way locations. Right of way shall be dedicated prior to the issuance of any building permit that increases required parking.

(5) Building Setback Exceptions. Building setbacks and separations shall be in accordance with Subsections (2), (3) and (4) of this Section. However, the Director may reduce building setbacks without a variance when:

(a) The building design incorporates landscaped stormwater quality facilities within the setback area that also enhances pedestrian amenities and the campus environment;

(b) Necessary to protect natural assets identified in the Gateway Refinement Plan or elsewhere in this Code;

(c) Necessary to preserve existing healthy mature trees;

(d) Necessary to accommodate handicapped access requirements; or

(e) Legally created lots do not meet the minimum lot size.

ARTICLE 22

MS MEDICAL SERVICES DISTRICT

22.010 ESTABLISHMENT OF THE MS MEDICAL SERVICES DISTRICT.

(1) In order to implement the policies of the Metro Plan, regulate the use of land, structures and buildings, and protect the public health, safety and welfare, the MS District is established in this Article.

(2) The MS District is designed to provide for hospital expansion and for suitable, geographically dispersed areas for the development of hospitals and associated medical residential facilities. These facilities shall be developed comprehensively and shall be designed to ensure compatibility with the surrounding neighborhood.

(3) The provisions of this Article may apply:

(a) In the vicinity of the McKenzie-Willamette Hospital, as delineated in the Centennial-Mohawk Refinement Plan;

(b) On arterial streets where Community Commercial, Major Retail Commercial, Medium Density Residential or High Density Residential Metro Plan designations exist.

22.020 PRIMARY USES.

The following uses are permitted subject to Site Plan Review approval. The development standards of this Article and any other additional provisions, restrictions or exceptions set forth in this Code shall apply. **USES SIMILAR TO THOSE SPECIFICALLY LISTED MAY BE PERMITTED AT THE DISCRETION OF THE DIRECTOR IN ACCORDANCE WITH SECTION 4.010, INTERPRETATION.**

(1) Hospital services

(2) Medical clinics

(3) Physicians services

(4) Medical laboratory services

(5) Dental services

(6) Dental laboratories

(7) Wellness, fitness and nutrition services

(8) Physical rehabilitation centers

(9) Housing for the elderly and handicapped, independent of care facilities.

(10) Residential care facilities

(11) Day care facilities that meet Children's Services Division (CSD) regulations.

(12) Adult day care facilities subject to any applicable State regulations.

(13) Certain Wireless Telecommunications Systems Facilities (Article 32). Refer to Section 32.130 for siting standards and review process in the MS MEDICAL SERVICES DISTRICT.

22.030 SECONDARY USES.

In addition to primary uses, the following secondary retail uses shall be permitted subject to Site Plan Review approval. Secondary retail uses shall be limited to 20 percent of the total gross floor area of all buildings on the site. The development standards of this Article and any other additional provisions, restrictions or exceptions set forth in this Code shall apply. USES SIMILAR TO THOSE SPECIFICALLY LISTED MAY BE PERMITTED AT THE DISCRETION OF THE DIRECTOR IN ACCORDANCE WITH SECTION 4.010, INTERPRETATION.

(1) Dispensing pharmacies

(2) Prosthesis, hearing and speech aids sales and service

(3) Home medical equipment rental and sales

(4) Cafeterias, medical related recreational facilities. low impact public utility facilities, and heliports and helistops serving and constructed in conjunction with on-site development.

(5) In addition to meeting the standards of this Code. at the time of Zone Change approval. the Planning Commission may attach specific conditions to mitigate identified neighborhood impacts including but not limited to building height. appearance. height and setbacks.

22.040 SITING STANDARDS.

(1) The MS District shall be applied to contiguous sites of three or more acres.

(2) Except where the use is limited to the conversion of a single-family residence to a medically related use. the minimum development area shall be at least one acre. This means that phasing of developments shall occur in increments of not less than 1 acre.

ARTICLE 23

PLO PUBLIC LAND AND OPEN SPACE DISTRICT

23.010 ESTABLISHMENT OF THE PLO PUBLIC LAND AND OPEN SPACE DISTRICT.

In order to implement the policies of the Metro Plan, regulate the use of land and buildings, and promote the public health and safety, the Public Land and Open Space District is established in this Article. The PLO District is intended to implement the Metro Plan Public and Semi-Public designation, which includes Government, Education and Parks and Open Space designations, by providing a zoning designation for:

(1) Public and private educational facilities, parks, cemeteries and golf courses, and

(2) Public offices, libraries, other government or publicly-owned facilities and similar uses located in areas designated Residential on the Metro Plan Diagram, regardless of size.

23.020 SCHEDULE OF USE CATEGORIES.

The following specific buildings and uses are permitted in this district as indicated subject to the provisions, additional restrictions and exceptions set forth in this Code.

"P" = PERMITTED USE, subject to the standards of this Code; may be processed under Type I, II or III procedures.

"S" = SPECIAL USE, subject to special locational and siting standards to be met prior to being deemed a permitted use; may be processed under Type I, II or III procedures.

"D" = DISCRETIONARY USE, may or may not be permitted, based upon the application of general criteria; may be subject to certain locational and siting standards to be met prior to being deemed a permitted use processed under Type III procedures.

SITE PLAN REVIEW SHALL BE REQUIRED, unless specifically exempted elsewhere in this code.

USE CATEGORIES / USES			PLO DISTRICT
(1)	Education (23.100)		
	(a)	Colleges	S
	(b)	High Schools	S
	(c)	Private/Public Elementary and Middle Schools (23.100(7))	S*

(2)	Government		
	(a)	Libraries	D
	(b)	Public Office Buildings	D
	(c)	Senior Centers	D
	(d)	Sports complexes / stadiums	D
(3)	Parks and open spaces (23.100)		
	(a)	Public and private parks and recreational facilities.	
		1. Neighborhood Parks	P
		2. Community Parks	S
		3. Regional Parks	S
		4. Private areas of greater than one acre reserved for open space as part of a cluster or hillside development.	P
	(b)	Publicly and privately owned golf courses and cemeteries.	D
	(c)	R.V. parks and campgrounds within a regional park.	S
	(d)	R.V. parks and campgrounds outside of a regional park and without sanitary sewer service as a temporary use subject to termination when within 1,000 feet of sanitary sewer.	D
(4)	Secondary uses – public land and open space.		
	(a)	Agricultural cultivation of undeveloped land.	P
	(b)	Cafeteria and restaurants primarily serving the patrons of the development.	P
	(c)	Day care facilities.	P
	(d)	Heliports and helistops.	D

(e)	Office and storage yards that are incidental to a primary use.	P
(f)	Mortuaries and chapels associated with cemeteries.	D
(g)	Maintenance and security residences, excluding mobile homes.	D
(h)	Low impact public facilities.	P
(i)	High impact public facilities.	D
(j)	Certain Wireless Telecommunications Systems Facilities (article 32). Refer to Section 32.130 for siting standards and review process in the PLO PUBLIC LANDS AND OPEN SPACE District.	
(k)	Wellness center	S

23.030 LOT SIZE STANDARDS.

There are no minimum lot size standards in the PLO District.

23.040 LOT COVERAGE AND PLANTING STANDARDS.

Parking, driveways and structures shall not exceed 65 percent of the development area. At least 25 percent of the development area shall be planted.

23.050 SETBACK STANDARDS.

In the PLO District each development area shall have planted setbacks of not less than the following unless otherwise provided for in this Code.

(1)	Street setbacks	15 feet
(2)	(2) Residential property line setbacks	20 feet
(3)	(3) Parking and driveway setbacks	5 feet

(4) Where an easement is larger than the required setback standard, no building or above grade structure, except for a fence, shall be built upon or over that easement.

(a) New development on vacant land.

(b) New structures on already developed sites, such as conversion of a parking area to a structure or demolition of a structure and construction of a new structure.

(c) An expansion of 50% or more of the total existing building square footage on the development site.

(d) The /NDO standards in this Article do not apply to a building alteration.

(e) Single-Family dwelling unit for which building permits were filed prior to the designation of an area for nodal development shall be exempt from Section 5.030 of this Code and from the standards of this Article for the purposes of reconstruction if such a dwelling unit is partially or completely destroyed or if the dwelling undergoes renovation. Room additions or other expansions typical of a single-family use shall also be allowed.

(3) **REVIEW PROCEDURE** All multi-unit residential, commercial and industrial development proposals within the Nodal Development Overlay District shall be reviewed as Type II Limited Land Use decisions, in accordance with Article 3, as part of the Site Plan Review process specified in Article 31. The Director may also determine that a development within the Nodal Development Overlay District is subject to a higher level of review (i.e., Type III versus Type II), when it is in the public interest

41.020 ALLOWED USES AND SPECIAL USE LIMITATIONS.

(1) **Allowed Uses.** The table below shows the schedule of allowed uses within each base zone. With some exceptions, the activities allowed within the base zone are also allowed within the /NDO District. The /NDO District adds the flexibility of mixing compatible uses on a given site. Mixed-use development is encouraged within the /NDO District. Certain auto oriented uses listed in subsection two (2) below, are prohibited within the District.

Base Zone	Allowed Use Categories
NC, CC, MRC, GO, MUC, MS	Those uses allowed within Mixed-Use Commercial MUC District in Article 40.020 of this code.
LMI, SLI, HI, MUE	Those uses allowed within Mixed-Use Employment MUE District in Article 40.020 of this code.
MDR, HDR, MUR	Those uses allowed within Mixed-Use Residential MUR District in Article 40.020 of this code.

LDR	Those uses allowed within the Low Density Residential zone as described in Article 16.020 of this code.

(2) Prohibited Uses.

(a) Car washes.
(b) Auto Parts stores.
(c) Recreational vehicle and heavy truck sales/rental/service.
(d) Motor vehicle sales/rental/service.
(e) Service stations, including quick servicing.
(f) Tires, sales/service.
(g) Transit park and ride, major or minor, except under a shared parking arrangement with another permitted use.
(h) Agricultural machinery rental/sales/service.
(i) Boats and watercraft sales and service.
(j) Equipment, heavy, rental/sales/service.
(k) Manufactured dwelling sales/service/repair.

41.030 LOCATION STANDARDS

When establishing the location and boundaries of a /NDO District, the following criteria shall be considered:

(1) The /NDO District shall be applied to the mixed-use centers or "nodes" identified by the City in response to its responsibility under TransPlan.

(2) All parcels included within a /NDO District should be located within 1/4 mile of a transit stop, and shall have near its center a commercial or employment core area.

41.040 MINIMUM DENSITY AND GENERAL DEVELOPMENT STANDARDS

The General Development Standards for Mixed-Use described in Section 40.100 describe the pedestrian-friendly and transit oriented design standards that shall apply to mixed use and nodal development. These standards shall apply to development within the /NDO District. In addition to those standards found in Section 40.100, the following shall apply:

(1) Minimum Density and Floor Area Ratio (FAR).

FAR= Means the amount of gross floor area of all buildings and structures on a building lot divided by the total lot area. A two story building that covers 50% of a lot would have a FAR of 1.0. Typical suburban FAR's range from 0.3 to 1.0 in mixed-use centers.

(a) Where the base zone is LDR, new subdivisions shall achieve a minimum residential density of

Appendix D
Eugene Development Code
Allowed Uses by Zone

Zoning - General Provisions

General

9.1000 **Introduction.** Land in Eugene is zoned to provide areas suitable for certain types of development. Each zone provides a set of regulations governing the uses, lot size, building setbacks, height, and other development regulations. Property may also be subject to an overlay zone. The overlay establishes additional regulations beyond the base zone to address specific community objectives, such as protection of environmentally sensitive areas or improving the efficient use of public transit. In some cases, overlays may provide an exception to the standard regulations for the base zone.

(Section 9.1000, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.1010 **Purpose of Zoning Regulations.** The broad purpose of zoning regulations is to protect and promote the public health, safety, and welfare, and to provide the economic, social and environmental advantages which result from an orderly, planned use of land resources. Such regulations generally are designed to implement the Metro Plan, Growth Management Study and other applicable adopted plans and policies.

(Section 9.1010, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.1020 **Applicability of Zoning Regulations.** The city does not enforce any easement, covenant or other agreement between private parties, nor is this land use code generally intended to abrogate, annul, or impair such easements, covenants or agreements. In those instances where zoning regulations impose a greater restriction or higher standard than required by an easement, covenant or other agreement between private parties, or where the zoning regulations otherwise conflict with those private party agreements, the zoning regulations shall control.

(Section 9.1020, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.1030 **Establishment and List of Zones.** The zones listed in Table 9.1030 Zones are established as follows:

Table 9.1030 Zones

Broad Zone Category	Zone	
Agricultural	AG	Agricultural Zone
Commercial	C-1	Neighborhood Commercial Zone
	C-2	Community Commercial Zone
	C-3	Major Commercial Zone
	C-4	Commercial/Industrial Zone
	GO	General Office Zone
Government and Education	PL	Public Land Zone
Industrial	I-1	Campus Industrial Zone
	I-2	Light-Medium Industrial Zone
	I-3	Heavy Industrial Zone

Table 9.1030 Zones		
Broad Zone Category	**Zone**	
Park and Open Space	NR	Natural Resource Zone
	PRO	Park, Recreation, and Open Space Zone
Residential	R-1	Low Density Residential Zone
	R-1.5	Rowhouse Zone
	R-2	Medium Density Residential Zone
	R-3	Limited High Density Residential Zone
	R-4	High Density Residential Zone
Special	S-CN	Chase Node Special Area Zone
	S-DW	Downtown Westside Special Area Zone
	S-E	Elmira Road Special Area Zone
	S-F	Fifth Avenue Special Area Zone
	S-H	Historic Zone (Adopted by separate ordinance on file at the city. See EC 9.3020 and EC 9.3450)
	S-HB	Blair Boulevard Historic Commercial Special Area Zone
	S-RN	Royal Node Special Area Zone
	S-RP	Riverfront Park Special Area Zone
	S-W	Whiteaker Special Area Zone

(Section 9.1030, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02; amended by Ordinance No. 20275, enacted January 13, 2003, effective February 12, 2003; and Ordinance No. 20267, enacted November 12, 2002, effective March 3, 2003.)

9.1040 **Establishment and List of Overlay Zones.** The overlay zones listed in Table 9.1040 Overlay Zones are established as follows:

Table 9.1040 Overlay Zones	
Overlay	**Description**
/#	Residential Density Range Overlay Zone (# indicates density range)
/BW	Broadway Overlay Zone
/CAS	Commercial Airport Safety Overlay Zone
/HD	Hillside Development Overlay Zone
/ND	Nodal Development Overlay Zone
/PD	Planned Unit Development Overlay Zone
/SR	Site Review Overlay Zone
/TD	Transit Oriented Development Overlay Zone
/UL	Urbanizable Land Overlay Zone
/WP	Waterside Protection Overlay Zone
/WB	Wetland Buffer Overlay Zone
/WG	Willamette River Greenway Overlay Zone

(Section 9.1040, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02; and amended by Ordinance No. 20271, enacted November 25, 2002, effective December 25, 2002.)

9.1045 **Reclassification of Prior Zones.** The zoning classifications shown in Table 9.1045 Reclassification of Zones are reclassified effective August 1, 2001.

Base Zones

Agricultural Zone

9.2000 **Purpose of AG Agricultural Zone.** The purpose of the AG agricultural zone is to allow agricultural uses within the urban growth boundary until land is converted to urban development. Agricultural uses are considered interim uses until public facilities and services can be provided in an economical manner and urban development of the site would result in compact urban growth and sequential development.

(Section 9.2000, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.2010 **Agricultural Zone Land Use and Permit Requirements.** The following Table 9.2010 Agricultural Zone Uses and Permit Requirements, identifies those uses in the AG Agricultural Zone that are:

(P) Permitted, subject to zone verification.

(C) Subject to a conditional use permit, or an approved final planned unit development.

(S) Permitted subject to zone verification and the Special Development Standards for Certain Uses beginning at EC 9.5000.

(#) The numbers in ( ) in the table are uses that have special use limitations that are described in EC 9.2011 Special Use Limitations for Table 9.2020

Examples shown in Table 9.2010 are for informational purposes, and are not exclusive. Table 9.2010 does not indicate uses subject to Standards Review. Applicability of Standards Review procedures is set out at EC 9.8465.

Table 9.2010 Agricultural Zone Uses and Permit Requirements	
	AG
Accessory Uses	
Accessory Use. Examples include storage of farm products or livestock and other uses normal and incidental to agricultural uses.	P
Agricultural, Resource Production and Extraction	
Community and Allotment Garden	P
Display and Sale of Agricultural Products, primarily based on products raised or grown on the premises	P
Farm Animals, including pastureland, excluding a slaughter house (See EC 9.5250)	S
Horticultural Use. Examples include field crops, orchards, berries, and nursery or flower stock.	P
Mineral Resources Mining, Recovery, Stockpiling, Processing, excluding smelters and ore reductions	C
Education, Cultural, Religious, Social and Fraternal	
Golf course, with or without country club	P
Grange Hall	P
Library	P
Entertainment and Recreation	
Equestrian Academy and Stable	C
Equestrian Trail	P

Table 9.2010 Agricultural Zone Uses and Permit Requirements	
	AG
Farm Related Educational Activities and Events. Examples include harvest festivals or tours of heritage farms. Excludes rodeos and other events that are not related to on-going farm operations.	P
Park and Non-Publicly Owned Open Space Use (See EC 9.2620): Kiosk, Gazebo, Pergola, Arbor Trail, paved and non paved Arboretum, outdoors Natural Area or Environmental Restoration Wetland Mitigation Area	S(1)
Government	
Government Services, not specifically listed in this or any other uses and permit requirements table. An example could include: a fire station.	P
Lodging	
Bed and Breakfast (See EC 9.5100)	S
Motor Vehicle Related Uses	
Transit, Neighborhood Improvement	P
Residential	
Dwellings	
One-Family Dwelling, 1 Per Lot	P
Utilities and Communication	
Amateur Radio Antenna Structure (See EC 9.5050)	P
Electrical Substation, must meet landscape standards in EC 9.6210(3) High Screen Landscape Standard (L-3) unless fully enclosed within a building or approved through a Type II procedure that shows low visual impact.	P
Fiber Optic Station, must meet landscape standards in EC 9.6210(3) High Screen Landscape Standard (L-3) unless fully enclosed within a building or approved through a Type II procedure that shows low visual impact.	P
Pump Station, well head, non-elevated reservoir, and other water or sewer facilities must meet landscape standards in EC 9.6210(3) High Screen Landscape Standard (L-3) unless fully enclosed within a building or approved through a Type II procedure that shows low visual impact.	P
Telecommunication Tower or Facility (See EC 9.5750)	P
Water Reservoir, elevated above ground level	SR
Other Commercial Services	
Home Occupation (See EC 9.5350)	S
Kennel	C
Temporary Activity (See EC 9.5800)	S
Wildlife Care Center (See EC 9.5850)	S

(Section 9.2010, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02; and amended by Ordinance No. 20285, enacted March 10, 2003, effective April 9, 2003.)

9.2011 Special Use Limitations for Table 9.2010.

(1) Permitted in the AG zone, subject to the PRO zone standards in EC 9.2640.

(Section 9.2011 added by Ordinance No. 20285, enacted March 10, 2003, effective April 9, 2003.)

9.2020 Agricultural Zone Lot and Development Standards. In addition to applicable development standards contained elsewhere in this code, the development

external factors. This zone also encourages a compatible mix of dwellings and offices on the same or adjacent properties. Retail uses are also permitted.
(Section 9.2140, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.2150 **Commercial Zone Siting Requirements.** In addition to the approval criteria in EC 9.8865 Zone Change Approval Criteria, the following siting requirements apply:

(1) C-1 Neighborhood Commercial.

(a) New C-1 zones shall be located within convenient walking or bicycling distance of an adequate support population. For new C-1 areas between 4½ and 5 acres, an adequate support population is 4,000 people (existing or planned) within an area conveniently accessible to the site.

(b) New C-1 areas larger than 1.5 acres shall be located on a collector or arterial street.

(c) Existing neighborhood commercial areas shall not be allowed to expand to greater than 1.5 acres unless the development area site abuts a collector or arterial street.

(2) C-4 Commercial/Industrial. The application of the C-4 zone is limited to development sites with all of the following:

(a) Strip or Street-Oriented Commercial designation in the Metro Plan.

(b) Direct access to and from an arterial street.

(c) A mix of commercial and industrial establishments in the area.

(Section 9.2150, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.2160 **Commercial Zone Land Use and Permit Requirements.** The following Table 9.2160 Commercial Zone Land Uses and Permit Requirements identifies those uses in Commercial Zones that are:

(P) Permitted, subject to zone verification.

(SR) Permitted, subject to an approved site review plan.

(C) Subject to a conditional use permit or an approved final planned unit development.

(S) Permitted, subject to zone verification and the Special Development Standards for Certain Uses beginning at EC 9.5000.

(#) The numbers in ( ) in the table are uses that have special use limitations described in EC 9.2161.

Examples shown in Table 9.2160 are for informational purposes, and are not exclusive. Table 9.2160 does not indicate uses subject to Standards Review. Applicability of Standards Review procedures is set out at EC 9.8465.

Table 9.2160 Commercial Zone Land Uses and Permit Requirements

	C-1	C-2	C-3	C-4	GO
Accessory Uses					
Accessory Use. An example includes storage and distribution incidental to the primary use of the site. Parking areas that are accessory to a primary use on the same development site shall comply with EC 9.2161(5).	P	P	P	P	P

Table 9.2160 Commercial Zone Land Uses and Permit Requirements					
	C-1	C-2	C-3	C-4	GO
Agricultural, Resource Production and Extraction					
Horticultural Use. Examples include field crops, orchards, berries, and nursery or flower stock.	P	P		P	P
Eating and Drinking Establishments					
Bar and Tavern	C(1)	P	P	P	
Delicatessen	P(1)	P	P	P	P(2)
Restaurant	P(1)	P	P	P	P(2)
Specialty Food and Beverage. Examples include bagel, candy, coffee, donut, and ice cream stores. Products manufactured on-site shall comply with manufacturing allowances for food and beverage products.	P(1)	P	P	P	P(2)
Education, Cultural, Religious, Social and Fraternal					
Artist Gallery/Studio	P(1)	P	P		
Ballet, Dance, Martial Arts, and Gymnastic School/Academy/Studio	P(1)	P	P		C
Church, Synagogue, and Temple, including associated residential structures for religious personnel	P(1)	P	P	C	P
Club and Lodge of State or National Organization		P	P		P
Community and Neighborhood Center	P	P	P		C
Library		P	P		
Museum		P	P		
School, Business or Specialized Educational Training (excludes driving instruction)		P	P		
School, Driving (including use of motor vehicles)		P	P	P	
School, Elementary through High School		P	P		
University or College		P	P		
Entertainment and Recreation					
Amusement Center (Arcade, pool tables, etc.)	C	P	P		
Arena, Indoors		C	C		
Athletic Facility and Sports Club	P(1)	P	P	P	C
Bowling Alley		P	P	P	
Golf Course, Miniature Indoor		P	P	P	
Golf Course, Miniature Outdoor		SR		P	
Golf Driving Range		SR		P	
Park and Non-Publicly Owned Open Space Use (See EC 9.2620): Uses not specifically listed in this Table 9.2160 that are listed under the "Entertainment and Recreation" category in Table 9.2630.		S(8)	S(8)		S(8)
Theater, Live Entertainment	C	P	P	P	
Theater, Motion Picture		P	P	P	
Financial Services					
Automated Teller Machine (ATM)	P(1)	P	P	P	P
Bank, Savings and Loan Office, Credit Union	P(1)	P	P	P	P

Table 9.2160 Commercial Zone Land Uses and Permit Requirements					
	C-1	C-2	C-3	C-4	GO
Government					
Government Services, not specifically listed in this or any other uses and permit requirements table. An example could include: a fire station.	P(1)	P	P	P	P
Information Technology Services					
Computer Networking (includes services and technical support center)	P(1)	P	P	P	P
E-commerce (includes on-site shipping via truck)		P	P	P	
E-commerce (excludes on-site shipping via truck)	P(1)	P	P	P	P
Healthcare Informatics (includes biotechnology, bioinformatics, and medical informatics)	P(1)	P	P	P	P
Internet and Web Site (includes services and technical support center)	P(1)	P	P	P	P
Software Development (includes services and technical support center)	P(1)	P	P	P	P
Lodging					
Bed and Breakfast Facility		P	P		P
Homeless Shelter not in existence as of January 1, 1984				C	
Hotel, Motel, and similar business providing overnight accommodations		P	P	P	
Recreational Vehicle Park, may include tent sites (See EC 9.5600)		S		S	
Manufacturing					
Manufacturing Allowance in C-1, manufacturing is permitted if the following standards are met: -- No external air emissions required a permit from an air quality public agency. -- All industrial activity completely enclosed within building. -- Industrial uses limited to apparel, food and beverage, handcraft industries, and other manufacturing uses with similar external impacts to other uses permitted in C-1. -- Each individual business is limited to 5,000 square feet of area exclusive of parking area.	P				

Table 9.2160 Commercial Zone Land Uses and Permit Requirements					
	C-1	C-2	C-3	C-4	GO
Manufacturing Allowance in C-2 and C-3, manufacturing is permitted if the following standards are met: -- No external air emissions requiring a permit from an air quality public agency. -- All industrial activity completely enclosed within building. -- Industrial uses limited to apparel, food and beverage products, electronic communication assembly, handcraft industries, and other manufacturing uses with similar external impacts to other uses permitted in C-2 and C-3. -- Each individual business is limited to 10,000 square feet of floor area exclusive of parking area. These types of businesses are limited in size to assure that they will not dominate the commercial area and to limit any negative external impacts on commercial and residential uses.		P	P		
Manufacturing Allowance in C-4, manufacturing use in C-4 is regulated the same as in the I-2 Light-Medium Industrial district				See I-2	
Recycling, reverse vending machine	P	P	P	P	P
Recycling, small collection facility (See EC 9.5650)	S	S	S	S	S
Medical, Health, and Correctional Services					
Blood Bank		P	P		P
Correctional Facility, excluding Residential Treatment Center		C	C	C	C
Clinic or other Medical Health Treatment Facility (including mental health).	P(1)	P	P		P
Drug Treatment Clinic - Non-residential		P(3)	P(3)	P(3)	
Hospital		C	C		C
Laboratory, medical, dental, X-ray		P	P		P
Meal Service, Non-Profit	C	P	P		
Nursing Home		P	P		P
Plasma Center, must be at least 800 feet between Plasma Centers		P			
Residential Treatment Center		P	P		C
Motor Vehicle Related Uses					
Car Wash		P	C	P	
Motor Vehicle Sales/Rental/Service, excluding motorcycles, recreational vehicles and heavy trucks		P	C	P	
Motorcycle Sales/Rental/Service		P	C	P	
Parking Area not directly related to a primary use on the same development site		SR (4)	P(5)	P	P
Parts Store		P	P	P	
Recreational Vehicles and Heavy Truck, Sales/Rental/Service		C		P	
Repair, includes paint and body shop		P		P	
Service Stations, includes quick servicing		P	C	P	

Table 9.2160 Commercial Zone Land Uses and Permit Requirements					
	C-1	C-2	C-3	C-4	GO
Structured Parking, up to two levels not directly related to a primary use on the same development site		P	P	P	P
Structured Parking, three or more levels not directly related to a primary use on the same development site		C	P	P	C
Tires, Sales/Service		P	C	P	
Transit, Neighborhood Improvement	P	P	P	P	P
Transit Park and Ride, Major		P	P	P	P
Transit Park and Ride, Minor	C	P	P	P	P
Transit Station, Major	C	SR	SR	P	SR
Transit Station, Minor	C	P	P	P	P
Office Uses					
Administrative, General, and Professional Office	P(1)	P	P	P	P
Scientific and Educational Research Center	P(1)	P	P	P	P
Personal Services					
Barber, Beauty, Nail, Tanning Shop	P(1)	P	P		P(2)
Day Care Facility (Not associated with a residence.)	P	P	P	P	P
Dry Cleaner	P(1)	P	P	P	P(2)
Film, Drop-off/Pick-up	P(1)	P	P	P	P(2)
Locksmith Shop	P(1)	P	P	P	P(2)
Laundromat, Self-Service	P(1)	P	P	P	P(2)
Mailing and Package Service	P(1)	P	P	P	P(2)
Shoe Repair Shop	P(1)	P	P	P	P(2)
Tailor Shop	P(1)	P	P	P	P(2)
Residential					
Dwellings					
One-Family Dwelling	P(6)	P(6)			
Rowhouse (One-Family on Own Lot Attached to Adjacent Residence on Separate Lot with Garage or Carport Access to the Rear of the Lot)	S(6)	S(6)			P
Duplex (Two-Family Attached on Same Lot)	P(6)	P(6)			P
Tri-plex (Three-Family Attached on Same Lot) (See EC 9.5500)	S(6)	S(6)	S		S
Four-plex (Four-Family Attached on Same Lot) (See EC 9.5500)	S(6)	S(6)	S		S
Multiple Family (3 or More Dwellings on Same Lot) (See EC 9.5500)	S(6)	S(6)	S		S
Assisted Care & Day Care (Residences Providing Special Services, Treatment or Supervision)					
Assisted Care (5 or fewer people living in facility and 3 or fewer outside employees on site at any one time)		P	P		P
Assisted Care (6 or more people living in facility)		P	P		C
Day Care (3 to 12 people served)	P	P	P		P
Day Care (13 or more people served)	C	P	P		P
Rooms for Rent Situations					
Boarding and Rooming House		P	P		C
Campus Living Organization, including Fraternities and Sororities		P	P		C
Single Room Occupancy (SRO)		P	P	P	

Table 9.2160 Commercial Zone Land Uses and Permit Requirements					
	C-1	C-2	C-3	C-4	GO
University and College Dormitories		P	P		P
Trade (Retail and Wholesale)					
Agricultural Machinery Rental/Sales/Service		C		P	
Appliance Sales/Service		P	P	P	
Bicycle Rental/Sales/Service	P(1)	P	P	P	
Boat and Watercraft Sales/Service		P	C	P	
Book Store	P(1)	P	P	P	
Building Materials and Supplies				P	
Computer Store	P(1)	P	P	P	
Convenience Store	P(1)	P	P	P	P(2)
Drug Store (excluding Drug Treatment Centers)	P(1)	P	P	P	
Electrical Appliances and Supplies	P(1)	P	P	P	
Equipment, Light, Rental/Sales/Service		P	P	P	
Equipment, Heavy, Rental/Sales/Service- includes truck and tractor sales		C		P	
Fabric Store		P	P	P	
Floor Covering Store		P	P	P	
Furniture and Home Furnishing Stores		P	P	P	
Garden Supply/Nursery	P(1)	P		P	
General Merchandise (includes supermarket and department store)	P(1)	P	P		P(2)
Hardware/Home Improvement Store	P(1)	P	P	P	
Healthcare Equipment and Supplies		P	P	P	
Liquor Store		P	P		
Manufactured Dwelling Sales/Service/Repair		C		C	
Office Equipment and Supplies		P	P	P	
Plumbing Supplies		P	P	P	
Regional Distribution Center				P	
Retail trade when secondary, directly related, and limited to products manufactured, repaired or assembled on the development site	P(1)	P	P	P	
Storage Facility, Household/Consumer Goods, enclosed		P		P	
Specialty Store (an example includes a gift store)	P(1)	P	P		P(2)
Toy and Hobby Store	P(1)	P	P	P	
Video Store	P(1)	P	P	P	
Wholesale Trade (excluding regional distribution center)				P	
Utilities and Communication					
Amateur Radio Antenna Structure (See EC 9.5050)	S	S	S		S
Broadcasting Studio, Commercial and Public Education		P	P	P	P(7)
Electrical Substation, must meet landscape standards in EC 9.6210(3) High Screen Landscape Standard (L-3) unless fully enclosed within a building or approved through a Type II procedure that shows low visual impact.	P	P	P	P	P

Table 9.2160 Commercial Zone Land Uses and Permit Requirements					
	C-1	C-2	C-3	C-4	GO
Fiber Optic Station, must meet landscape standards in EC 9.6210(3) High Screen Landscape Standard (L-3) unless fully enclosed within a building or approved through a Type II procedure that shows low visual impact.	P	P	P	P	P
Pump Station, well head, non-elevated reservoir, and other water or sewer facilities must meet landscape standards in EC 9.6210(3) High Screen Landscape Standard (L-3) unless fully enclosed within a building or approved through a Type II procedure that shows low visual impact.	P	P	P	P	P
Telecommunication Tower or Facility (See EC 9.5750)	S	S	S	S	S
Water Reservoir, elevated above ground level	SR	SR	SR	SR	SR
Other Commercial Services					
Building Maintenance Services		P	P	P	
Catering Service	P(1)	P	P	P	P(2)
Collection Center, Collection of Used Goods (See EC 9.5150)	S	S	S	S	
Home Occupation (See EC 9.5350)	S	S	S		S
Mortuary		P	P		
Photographers' Studio	P(1)	P	P	P	
Picture Framing and Glazing	P(1)	P	P	P	P
Printing, Blueprinting, and Duplicating		P	P	P	
Publishing Service		P	P	P	
Temporary Activity (See EC 9.5800)	S	S	S	S	S
Train Station		C	C	P	
Upholstery Shop		P	C	P	
Veterinarian Service	C	P		P	

(Section 9.2160, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02; amended by Ordinance No. 20269, enacted November 25, 2002, effective December 25, 2002; Ordinance No. 20285, enacted March 10, 2003, effective April 9, 2003; Ordinance No. 20299, enacted October 22, 2003, effective November 21, 2003, remanded on February 25, 2005 and provisions administratively removed on April 11, 2005; administratively corrected October 27, 2003; and amended by Ordinance No. 20305, enacted December 3, 2003, effective January 2, 2004.)

9.2161 Special Use Limitations for Table 9.2160.

(1) Small Business Incentives in C-1. Each individual business is limited to 5,000 square feet of floor area. Individual businesses shall be permitted to occupy up to 10,000 square feet of floor area on development sites that have a floor area ratio (FAR) of at least .65.

(2) Retail Sales and Personal Services Allowance in GO. Retail sales and personal services are allowed in the GO zone only if the use is located within a building that already contains office and/or residential uses. The retail sales and personal services area must be limited to 10 percent of the floor area of the building.

(3) Drug Treatment Clinic - Non-Residential Allowance in C-2, C-3 and C-4. Use is permitted on property located within a quarter of a mile of a transit

route.

(4) **Parking Areas in C-2.** Any parking area established after August 1, 2001 that is not directly tied to a specific development shall require approval through the site review process.

(5) **Parking Areas in C-3.** For surface parking spaces created after August 1, 2001, there shall be at least 1,000 square feet of floor area on the development site for each new parking space created. The maximum number of surface parking spaces on a development site shall be 20. All parking spaces in excess of these limits shall be in structured parking.

(6) **Residential Use Limitation in C-1 and C-2.** Residential dwellings are allowed in the C-1 and C-2 zones if the ground floor of the structure is used for commercial or non-residential purposes according to Table 9.2161 Commercial Uses Requirements in Mixed-Use Residential Developments.

Table 9.2161 Commercial Uses Requirements in Mixed-Use Residential Developments		
	C-1	C-2
Commercial Uses Requirements in Mixed-Use Residential Developments		
Minimum Percent of Building Street Frontage in Commercial Use. Building street frontage shall be measured along the length of the building at the ground level within the maximum front yard setback. As used herein, "commercial" includes any non-residential use occupying a space at least 15 feet deep from the street facade of the building, excluding parking areas and garages.	80%	60%
Minimum Percent of Ground Floor Area in Commercial Use.	80%	20%

(7) **Broadcasting Studios, Commercial and Public Education Allowance in GO.** Any number of receiving antennas, and up to 1 station-to-station transmitter-link antenna not to exceed 10 watts are permitted in the GO zone.

(8) Permitted in the Commercial zone, subject to the PRO zone use limitations and standards in Table 9.2630, EC 9.2631 and EC 9.2640.

(Section 9.2161, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02; amended by Ordinance No. 20285, enacted March 10, 2003, effective April 9, 2003; amended by Ordinance No. 20299, enacted October 22, 2003, effective November 21, 2003, remanded on February 25, 2005 and provisions administratively removed on April 11, 2005.)

9.2170 Commercial Zone Development Standards - General.

(1) **Intent.** These commercial zone development standards are intended to achieve the following:

(a) Improve the quality and appearance of commercial development in the city.

(b) Ensure that such development is compatible with adjacent development and is complementary to the community as a whole.

(c) Encourage crime prevention through environmental design, decrease opportunity for crime, and increase user perception of safety.

(d) Increase opportunities for use of alternative modes of transportation.

(e) Regulate the intensity of use allowed on a site.

(f) Control the overall scale of commercial buildings.

(g) Promote streetscapes that are consistent with the desired character of the various commercial zones.

(2) **I-2 Light-Medium Industrial.** This zone is limited to areas designated Light-Medium Industrial in the Metro Plan or those that meet all of the following minimum siting requirements:
   (a) Access to arterial streets without undue negative impact on residential streets.
   (b) No more than 5 acres.
   (c) Sufficient street frontage to accommodate structures, parking, and access in character with adjacent non-industrial properties.

(3) **I-3 Heavy Industrial.** This zone is limited to areas designated either Heavy Industrial or Special Heavy Industrial in the Metro Plan.

(Section 9.2430, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.2450 **Industrial Zone Land Use and Permit Requirements.** The following Table 9.2450 Industrial Zone Land Use and Permit Requirements identifies those uses in the Industrial Zones that are:
(P) Permitted, subject to zone verification.
(SR) Permitted, subject to an approved site review plan.
(C) Subject to a conditional use permit or an approved final planned unit development.
(S) Permitted subject to zone verification and the Special Development Standards for Certain Uses beginning at EC 9.5000.
(#) The numbers in ( ) in the table are uses that have special use limitations that are described in EC 9.2451.

The examples listed in Table 9.2450 are for informational purposes and are not exclusive. Table 9.2450 does not indicate uses subject to Standards Review. Applicability of Standards Review procedures is set out at EC 9.8465.

Table 9.2450 Industrial Zone Land Use and Permit Requirements

	I-1	I-2	I-3
Accessory Uses			
Accessory Uses. Examples include security work, administration offices, and storage and distribution incidental to the primary use of the site.	P	P	P
Agricultural, Resource Production and Extraction			
Horticultural Uses. Examples include field crops, orchards, berries, and nursery or flower stock.		P	P
Mineral Resource Mining, Recovery, Stockpiling, Processing (excluding smelter or ore reduction)		SR	SR
Eating and Drinking Establishments			
Delicatessen	P(5)	P(2)	
Restaurant	P(5)	P(2)	
Specialty Food and Beverage. Examples include bagel, candy, coffee, donut, and ice cream stores. Products manufactured on-site shall comply with manufacturing allowances for food and beverage products.	P(5)	P(2)	
Education, Cultural, Religious, Social and Fraternal			
Artist Gallery/Studio	P	P	P
Ballet, Dance, Martial Arts, and Gymnastic School/Academy/Studio	C	C	

Table 9.2450 Industrial Zone Land Use and Permit Requirements			
	I-1	I-2	I-3
Church, Synagogue, and Temple, including associated residential structures for religious personnel	C	C	
Club and Lodge of State or National Organization		P	P
Library	P	P	P
School, Business or Specialized Educational Training (excludes driver instruction)	P	P	P
School, Driving (including use of motor vehicles)		P	P
Entertainment and Recreation			
Athletic Facility and Sports Club	C	C	
Race Track, including drag strip and go-cart tracks		C	C
Theater, Live Entertainment	C(3)	C(3)	C(3)
Financial Services			
Automated Teller Machine (ATM)	P	P	P
Bank, Savings and Loan Office, Credit Union	P(5)(6)	P(2)(6)	
Government			
Government Services, not specifically listed in this or any other uses and permit requirements table. An example could include: a fire station.	P	P	P
Information Technology Services			
Computer Networking (includes services and technical support center)	P(6)	P(6)	
E-commerce (excludes on-site shipping via truck unless approved through a site review or PUD)	P(6)	P(6)	
Healthcare Informatics (includes biotechnology, bioinformatics, and medical informatics)	P(6)	P(6)	
Internet and Web Site (includes services and technical support center)	P(6)	P(6)	
Software Development (includes services and technical support center)	P(6)	P(6)	
Lodging			
Homeless Shelter in Existence as of January 1, 1984 (See EC 9.5300)		S	
Homeless Shelter Not in Existence as of January 1, 1984		C	C
Manufacturing (Includes processing, assembling, packaging, and repairing)			
Apparel, Clothing, and other finished products made from fabrics, wool, yarn and similar materials		P	P
Asphalt Mixing and Batching/Concrete Mixing and Batching		SR	SR
Chemical, Drug, Cosmetics, and Related Products	P	P	P
Cleaning and Dyeing Plant		P	P
Concrete, Gypsum, and Plaster Products		P	P
Contractor's Storage Yard		P	P
Electronic and Communication Components, Systems, Equipment, and Supplies, includes computers and semi-conductors	P	P	P
Explosives, includes manufacturing			C
Food and Beverage Products		P	P
Furniture and Fixtures		P	P
Glass Products		P	P
Handcraft Industries, small scale manufacturing		P	P
Leather Products		P	P
Lumber and Wood Products		P	P

Table 9.2450 Industrial Zone Land Use and Permit Requirements			
	I-1	I-2	I-3
Machinery		P	P
Measuring, analyzing, and controlling instruments and time pieces	P	P	P
Metal Products Fabrication, machine/welding shops(no blast furnaces)		P	P
Motion Picture Production, Distribution, and Allied Services	P	P	P
Motor Vehicles and Transportation Equipment		P	P
Paints and Allied Products		P	P
Paper and Allied Products		P	P
Photographic and Copying Equipment		P	P
Precision Testing, Medical, Optical, Surgical, and Dental Goods	P	P	P
Recycling- composting, facilities requiring DEQ permit		P	P
Recycling- large collection facility			P
Recycling- reverse vending machine		P	P
Recycling- scrap and dismantling yard (includes vehicle wrecking and salvage)			P
Recycling- small collection facility (See EC 9.5650)		S	P
Rubber and Plastic Products		P	P
Signs and Advertising Displays		P	P
Slaughterhouse and Rendering Plant (indoor only)			P
Stone, Cut Stone, and Clay Products		P	P
Textiles		P	P
Medical, Health, and Correctional Services			
Correctional Facility, excluding Residential Treatment Center	C	C	C
Drug Treatment Clinic - Non-Residential		P(4)	
Laboratory, includes medical, dental, and x-ray. Use shall directly serve manufacturers, or other industrial or commercial enterprises, but exclude services offered on premises to the general public other than on an incidental basis.	P		
Residential Treatment Center	C	C	
Motor Vehicle Related Uses			
Motorcycle Sales/Rental/Service		P	
Parking Area not directly related to a primary use on the same development site	P	P	P
Recreational Vehicle and Heavy Truck, Sales/Rental/Service		P	P
Repair, includes paint and body shop		P	P
Service Station, includes quick servicing --Only permitted if property is located over one-half mile by motor vehicle travel from commercially zoned land.		P	P
Structured Parking, up to two levels not directly related to a primary use on the same development site	P	P	P
Structured Parking, three or more levels not directly related to a primary use on the same development site	P	P	P
Tires, Sales/Service		P	P
Transit, Neighborhood Improvement	P	P	P
Transit Park and Ride, Major or Minor	P	P	P
Transit Station, Major	P	P	P

Table 9.2450 Industrial Zone Land Use and Permit Requirements			
	I-1	I-2	I-3
Transit Station, Minor	P	P	P
Office Uses			
Administrative, General, and Professional Offices, directly serving manufacturers or other industrial or commercial enterprises, but excluding services offered on premises to the general public other than on an incidental basis. Examples may include public relations; graphic arts and advertising; professional membership and labor union office; engineering, architectural, and surveying offices.	P(1)(6)	P(2)(6)	
Scientific and Educational Research Center, includes laboratory	P(6)	P(6)	P
Personal Services			
Barber, Beauty, Nail, Tanning Shop	P(5)	P(2)	
Day Care Facility (Not associated with a residence)	P	P(2)	
Trade (Retail and Wholesale)			
Agricultural Machinery Rental/Sales/Service		P	P
Boat and Watercraft Sales/Service		P	P
Building Materials and Supplies		P	P
Convenience Store	P(5)	P(2)	
Equipment, Light, Rental/Sales/Service		P	P
Equipment, Heavy, Rental/Sales/Service- includes truck and tractor sales		P	P
Garden Supply/Nursery, includes feed and seed store		P	
Manufactured Dwelling Sales/Service/Repair		P	P
Plumbing Supplies		P	P
Regional Distribution Center	P	P	
Retail trade when secondary, directly related, and limited to products manufactured, repaired, or assembled on the development site	P(5)	P	P
Storage Facility, Household/Consumer Goods		P	P
Wholesale Trade (excluding Regional Distribution Center)		P	P
Utilities and Communication			
Amateur Radio Antenna Structure (See EC 9.5050)		S	S
Broadcasting Studio, Commercial and Public Education	P	P	
Electrical Substation, must meet landscape standards in EC 9.6210(3) High Screen Landscape Standard (L-3) unless fully enclosed within a building or approved through a Type II procedure that shows low visual impact.	P	P	P
Fiber Optic Station, must meet landscape standards in EC 9.6210(3) High Screen Landscape Standard (L-3) unless fully enclosed within a building or approved through a Type II procedure that shows low visual impact.	SR	P	P
Pump Station. well head, non-elevated reservoir, and other water or sewer facilities, must meet landscape standards in EC 9.6210(3) High Screen Landscape Standard (L-3) unless fully enclosed within a building or approved through a Type II procedure that shows low visual impact.	SR	P	P
Telecommunication Tower or Facility (See EC 9.5750)		S	S
Water Reservoir, elevated above ground level	SR	SR	SR
Other Commercial Services			

Table 9.2450 Industrial Zone Land Use and Permit Requirements			
	I-1	I-2	I-3
Building Maintenance Services	P	P	P
Cemetery, includes crematoria, columbaria, and mausoleums		C	C
Collection Center, Collection of Used Goods (See EC 9.5150)		P	P
Garbage Dump, Sanitary Land Fill		C	C
Heliport and Helistop		C	C
Kennel		C	C
Mortuary		C	C
Photographers' Studio		P(2)	P(2)
Picture Framing and Glazing		P(2)	P(2)
Printing, Blueprinting and Duplicating	P	P	P
Publishing Service	P	P	P
Temporary Activity (See EC 9.5800)	S	S	S
Train Station		P	P

(Section 9.2450, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02; amended by Ordinance No. 20269, enacted November 25, 2002, effective December 25, 2002; and Ordinance No. 20299, enacted October 22, 2003, effective November 21, 2003, remanded on February 25, 2005 and provisions administratively removed on April 11, 2005.)

9.2451 Special Use Limitations for Table 9.2450.

(1) Office Allowance in I-1. At least fifty percent of a building designed and used primarily for office use shall be occupied by a single tenant. In addition, any office building constructed after August 1, 2001 shall require approval as part of a business park according to site review or planned unit development procedures. At least 50% of the total ground floor area within the business park shall be in industrial use. The total office space, combined with any commercial support services, shall not exceed 50% of the total ground floor area within the business park. (For purposes of this code, the term "industrial use" includes all uses in the categories of "Manufacturing" and "Information Technology Services," and the following uses: laboratory, includes medical, dental and x-ray; broadcasting studio; regional distribution center; printing, blueprinting, and duplicating; and publishing service.) For purposes of inclusion of office space within a business park, industrial square footage existing on August 1, 2001 cannot be included for calculation purposes in business parks unless the industrial square footage was approved and constructed through a site review or planned unit development procedure prior to August 1, 2001.

(2) Eating and Drinking, Financial, Office, Personal Services, and Trade Allowance in I-2. These uses require approval as part of a business park according to site review or planned unit development procedures. The combined floor area of all these types of uses shall not exceed 20 percent of the total floor area of all buildings within the business park.

(3) Theaters, Live Entertainment. Theaters with live entertainment are conditionally permitted in existing buildings. No new buildings shall be

constructed in the industrial zones with the primary purpose of live theatrical productions.

(4) **Drug Treatment Clinic - Non-Residential.** Use is permitted on property located within a quarter mile of a transit route.

(5) **Eating and Drinking, Financial, Personal Services, and Trade Allowance in I-1.** These uses require approval as part of a business park according to site review or planned unit development procedures. The combined floor area of all these types of uses shall not exceed 15 percent of the total floor area of all buildings within the business park. These uses shall be designed and located within buildings that contain another permitted primary use and shall exclude any drive-through.

(6) **Applicability of Large Commercial Facilities Standards for Offices in I-1 and I-2.** These uses shall comply with the standards in EC 9.2173 Commercial Zone Development Standards - Large Commercial Facilities.

(Section 9.2451, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02; and amended by Ordinance No. 20299, enacted October 22, 2003, effective November 21, 2003, remanded on February 25, 2005 and provisions administratively removed on April 11, 2005.)

9.2460 Industrial Zone Development Standards.

(1) **Intent.** The industrial zone development standards are intended to achieve the following:

(a) Improve the quality and appearance of industrial development in the city.

(b) Ensure that such development is compatible with adjacent development and is complementary to the community as a whole.

(c) Encourage crime prevention through environmental design, decrease opportunity for crime, and increase user perception of safety.

(d) Increase opportunities for use of alternative modes of transportation.

(e) Regulate the intensity of uses allowed on a site.

(f) Promote streetscapes that are consistent with the desired character of the various industrial zones.

(g) Promote safe, attractive, and functional pedestrian circulation systems in industrial areas with higher employment ratios.

(2) **Application of Standards.** In addition to applicable provisions contained elsewhere in this land use code, the development standards listed in Table 9.2460 Industrial Zone Development Standards shall apply to all development in industrial zones. In cases of conflict, the standards specifically applicable in industrial zones shall apply.

Table 9.2460 Industrial Zone Development Standards

	I-1	I-2	I-3
Maximum Building Height (1)	None	None	None
Minimum Front Yard Setback (2)			
Abutting any zone except residential or park and open space	30 feet	0 feet	0 feet
Abutting residential or park and open space zone	30 feet	10 feet	10 feet

(Section 9.2735, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.2740 **Residential Zone Land Use and Permit Requirements.** The following Table 9.2740 Residential Zone Land Use and Permit Requirements identifies those uses in the residential zones that are:

(P) Permitted, subject to zone verification.
(SR) Permitted, subject to an approved site review plan.
(C) Subject to an approved conditional use permit or an approved final planned unit development.
(PUD) Permitted, subject to an approved final planned unit development.
(S) Permitted, subject to zone verification and the Special Development Standards for Certain Uses beginning at EC 9.5000.
(#) The numbers in ( ) in the table are uses that have special use limitations that are described in EC 9.2741 Special Use Limitations for Table 9.2740.

The examples listed in Table 9.2740 are for informational purposes and are not exclusive. Table 9.2740 does not indicate uses subject to Standards Review. Applicability of Standards Review procedures is set out at EC 9.8465.

Table 9.2740 Residential Zone Land Uses and Permit Requirements

	R-1	R-1.5	R-2	R-3	R-4
Accessory Uses					
Accessory Uses. Examples include a garage, storage shed, and services primarily for use by residents on the site, such as a recreation room and laundry facility. Parking areas and garages constructed and used for a principle use on the development site, such as an apartment, are allowed as an accessory use.	P	P	P	P	P
Agricultural, Resource Production and Extraction					
Community and Allotment Garden	P	P	P	P	P
Display and Sale of Agricultural Products Grown on the Site	P				
Farm Animals, including pastureland, excluding a slaughter house (See EC 9.5250)	S		S	S	S
Horticultural Use. Examples include field crops, orchards, berries, and nursery or flower stock.	P				
Education, Cultural, Religious, Social and Fraternal					
Church, Synagogue, and Temple, including associated residential structures for religious personnel. (All religious uses shall meet minimum and maximum density requirements in accordance with Table 9.2750 Residential Zone Development Standards unless specifically exempted elsewhere in this code or granted a modification through an approved conditional use permit.)	C		C	C	C

Table 9.2740 Residential Zone Land Uses and Permit Requirements					
	R-1	R-1.5	R-2	R-3	R-4
Club and Lodge of State or National Organization (These uses shall meet minimum and maximum density requirements in accordance with Table 9.2750 Residential Zone Development Standards unless specifically exempted elsewhere in this code or granted a modification through an approved conditional use permit.)					C
Community and Neighborhood Center	C		C	C	P
School, Elementary through High School	C		C	SR	SR
University or College	C		C	SR	SR
Entertainment and Recreation					
Athletic Facility and Sports Club	C		C	C	C
Athletic Field, Outdoor	C		C	C	C
Equestrian Academy and Stable (See also Table 9.1240)	PUD				
Equestrian Trail (See also Table 9.1240)	PUD				
Golf Course, with or without country club (See also Table 9.1240)	PUD				
Park and Non-Publicly Owned Open Space Use (See EC 9.2620): Kiosk, Gazebo, Pergola, Arbor Trail, paved and non paved Arboretum, outdoors Athletic Areas, outdoors, unlighted Natural Area or Environmental Restoration Ornamental Fountain, Art Work Park Furnishings, Examples include: play equipment, picnic tables, benches, bicycle racks, and interpretive signage Restroom Wetland Mitigation Area	S(9)		S(9)	S(9)	S(9)
Theater, Live Entertainment (See also Table 9.1240)	C				
Government					
Government Services, not specifically listed in this or any other uses and permit requirements table. An example could include: a fire station.	P		P	P	P
Lodging					
Bed and Breakfast Facility (See EC 9.5100)	C		C	S	S
Manufacturing					
Recycling, small collection facility (See EC 9.5650)	S		S	S	S
Medical, Health and Correctional Services					
Clinic, or other Medical Health Facility (including mental health).				C(1)	C(1)
Correctional Facility, excluding Residential Treatment Center			C	C	C

Table 9.2740 Residential Zone Land Uses and Permit Requirements					
	R-1	R-1.5	R-2	R-3	R-4
Hospital, Clinic, or other Medical Health Facility (including mental health). (These uses shall meet minimum and maximum density requirements in accordance with Table 9.2750 Residential Zone Development Standards unless specifically exempted elsewhere in this code or granted a modification through an approved conditional use permit.)				C (1)	C (1)
Nursing Home (See also Table 9.1240)				C	C
Residential Treatment Center	C		C	C	C
Motor Vehicle Related Uses					
Transit, Neighborhood Improvement	P	P	P	P	P
Transit Park and Ride, Major or Minor, Only when Shared Parking Arrangement with Other Permitted Use	P			P	P
Transit Park and Ride, Major or Minor					C
Transit Station, Major				C	C
Transit Station, Minor			SR	P	P
Residential					
Dwellings. (All dwellings shall meet minimum and maximum density requirements in accordance with Table 9.2750 Residential Zone Development Standards unless specifically exempted elsewhere in this land use code. All dwelling types are permitted if approved through the Planned Unit Development process.)					
One-Family Dwelling (1 Per Lot in R-1)	P		P	P	P
Secondary Dwelling (Either Attached or Detached from Primary One-Family Dwelling on Same Lot)	P(2)				
Rowhouse (One-Family on Own Lot Attached to Adjacent Residence on Separate Lot with Garage or Carport Access to the Rear of the Lot)	P	P(3)	P	P	P
Duplex (Two-Family Attached on Same Lot)	P(4)		P	P	P
Tri-plex (Three-Family Attached on Same Lot) See EC 9.5500	S(5)		S	S	S
Four-plex (Four-Family Attached on Same Lot) See EC 9.5500	S(6)		S	S	S
Multiple-Family (3 or More Dwellings on Same Lot) See EC 9.5500	PUD		S	S	S
Manufactured Home Park. Shall comply with EC 9.5400 or site review.	S or SR		S or SR		
Controlled Income and Rent Housing where density is above that normally permitted in the zoning yet not to exceed 150%. (Shall comply with multiple-family standards in EC 9.5500 or be approved as a PUD.)	S or PUD see Map 9.2740		S or PUD see Map 9.2740	S or PUD see Map 9.2740	
Assisted Care & Day Care (Residences Providing Special Services, Treatment or Supervision)					

Table 9.2740 Residential Zone Land Uses and Permit Requirements					
	R-1	R-1.5	R-2	R-3	R-4
Assisted Care (5 or fewer people living in facility and 3 or fewer outside employees on site at any one time)(All Assisted Care uses shall meet minimum and maximum density requirements in accordance with Table 9.2750 Residential Zone Development Standards unless specifically exempted elsewhere in this code.)	P		P	P	P
Assisted Care (6 or more people living in facility) (All Assisted Care uses shall meet minimum and maximum density requirements in accordance with Table 9.2750 Residential Zone Development Standards unless specifically exempted elsewhere in this code or granted a modification through an approved conditional use permit.)	C		C	C	C
Day Care (3 to 12 people served) (See EC 9.5200)	S		S	S	S
Day Care (13 or more people served)	C		C	C	C
Rooms for Rent Situations					
Boarding and Rooming House				C	P
Campus Living Organization, including Fraternities and Sororities				C	P
Single Room Occupancy (SRO) (All SRO uses shall meet minimum and maximum density requirements in accordance with Table 9.2750 Residential Zone Development Standards unless specifically exempted elsewhere in this code or granted a modification through an approved conditional use permit.)			C	P	P
University and College Dormitory				P	P
Utilities and Communication					
Amateur Radio Antenna Structure (See EC 9.5050)	S		S	S	S
Electrical Substation, must meet landscape standards in EC 9.6210(3) High Screen Landscape Standard (L-3) unless fully enclosed within a building or approved through a Type II procedure that shows low visual impact.	P		P	P	P
Fiber Optic Station, must meet landscape standards in EC 9.6210(3) High Screen Landscape Standard (L-3) unless fully enclosed within a building or approved through a Type II procedure that shows low visual impact.	P		P	P	P
Pump Station, well head, non-elevated reservoir, and other water or sewer facilities, must meet landscape standards in EC 9.6210(3) High Screen Landscape Standard (L-3) unless fully enclosed within a building or approved through a Type II procedure that shows low visual impact.	P		P	P	P
Telecommunication Tower or Facility (See EC 9.5750)	S		S	S	S
Water Reservoir, elevated above ground level	SR		SR	SR	SR
Other Commercial Services					

Table 9.2740 Residential Zone Land Uses and Permit Requirements					
	R-1	R-1.5	R-2	R-3	R-4
C-1 Neighborhood Commercial Zone Permitted Uses - Uses listed as P (Permitted) or SR (subject to site review) in C-1 and which are not listed elsewhere in this Table 9.2740	PUD (7)		PUD (7) or C(8)	PUD (7) or C(8)	PUD (7) or C(8)
Cemetery, includes crematoria, columbaria, and mausoleums	C				
Home Occupation (See EC 9.5350)	S	S	S	S	S
Model Home Sales Office (See EC 9.5450)	S		S	S	S
Temporary Activity (See EC 9.5800)	S	S	S	S	S
Wildlife Care Center (See EC 9.5850)	S				

(Section 9.2740, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02; amended by Ordinance No. 20269, enacted November 25, 2002, effective December 25, 2002; Ordinance No. 20285 enacted March 10, 2003, effective April 9, 2003; and Ordinance No. 20299, enacted October 22, 2003, effective November 21, 2003, remanded on February 25, 2005 and provisions administratively removed on April 11, 2005.)

9.2741 Special Use Limitations for Table 9.2740.

(1) Hospitals, Clinics or Other Medical Facilities. In the R-3 and R-4 zones, these uses are subject to the following special regulations:

(a) Hospitals, clinics, or other medical facilities are prohibited in the residentially zoned area beginning on East 13th Avenue and Willamette Street, then south on Willamette Street to East 19th Avenue, then east on East 19th Avenue to Patterson Street, then north on Patterson Street to East 18th Avenue, then east on East 18th Avenue to Hilyard Street, then north on Hilyard Street to East 13th Avenue, then west on East 13th Avenue to Willamette Street. (See West University Plan.)

(b) Hospitals, clinics, or other medical facilities in existence on April 14, 1982 within the residentially zoned area beginning at East 13th Avenue and Hilyard Street, then south on Hilyard Street to East 18th Avenue, then east on East 18th Avenue to Kincaid Street, then north on Kincaid Street to East 13th Avenue, then west on East 13th Avenue to Hilyard Street shall be allowed to remain subject to an existing approved conditional use permit. Expansion of any existing facility within this area is limited to the area under development control by the existing facility as of December 1, 1981. (See West University Plan.)

(c) Hospitals, clinics, or other medical facilities in that portion of the West University Neighborhood designated as East 12th High Density Residential and Clinic Area, shall be permitted, subject to an approved conditional use permit. Expansion of medical facilities in existence on August 1, 2001 shall be allowed on land used for such purpose as of August 1, 2001 without the requirement to comply with the residential density requirements. The proposed conversion of land in residential use for the expansion of existing medical facilities or the establishment of new medical facilities shall be subject to the residential density requirements of Table 9.2750. (See West University Plan.)

(d) Clinics and other medical facilities shall be permitted in that portion of the Coburg/Crescent area designated for high-density residential use,

subject to an approved planned unit development.

(e) Hospitals, clinics and other medical facilities are prohibited in that portion of the westside neighborhood designated as the central residential area. (See Westside Neighborhood Plan.)

(f) In the areas described in (b) and (d) above, hospitals, clinics, or other medical facilities are permitted subject to an approved conditional use permit, and are not required to comply with the residential density requirements of Table 9.2750.

(2) Secondary Dwellings. Secondary dwellings are only permitted in R-1 and are subject to the standards below.

(a) Secondary dwellings that are within the same building as the primary dwelling shall comply with all of the following:

1. The dwelling shall not exceed 800 square feet unless occupying the full story of a multi-story structure with ground floor residential use.
2. Either the primary dwelling or the secondary dwelling shall be occupied by the property owner.
3. There shall be at least 1 off-street parking space on the property.
4. Except for flag lots, the lot shall be at least 4,500 square feet. Flag lots shall contain at least 13,500 square feet to permit a secondary dwelling.

(b) In addition to the standards in subsection (a) of this section, detached secondary dwellings shall comply with the following:

1. Except for flag lots, the lot shall be at least 6,000 square feet. Flag lots shall contain at least 13,500 square feet.
2. If located within 20 feet of a property line, the maximum building height shall not exceed 15 feet.
3. Provide a pedestrian walkway from the street or alley to the primary entrance of the secondary dwelling.
4. The primary entrance to a secondary dwelling shall be defined by a roofed porch.
5. Outdoor storage and garbage areas shall be screened from view from adjacent properties and those across the street or alley.

Prior to issuance of a final occupancy permit for the secondary dwelling (or the primary dwelling if it is constructed later), the owner shall provide the city with a copy of a notice that has been recorded with the Lane County Clerk that documents the requirement that the secondary dwelling or primary dwelling is, and will remain, owner/occupied.

(3) Rowhouses. In R-1.5, rowhouses shall comply with all of the following:

(a) Maximum Building Size: Eight rowhouses in a building, no more than 180 feet in width.

(b) Minimum Interior or Rear Open Space Required: 400 square feet per rowhouse with a minimum smallest dimension of 14 feet.

(c) Auto access and parking shall be provided from the alley to the rear of the lot; there shall be no auto access from the front of the lot.

(4) Duplex. When located in R-1, a duplex shall conform to 1 of the following standards:

(a) The duplex was legally established on August 1, 2001.

(b) The duplex is on a corner lot abutting public streets as provided in EC 9.2760 Residential Zone Lot Standards.

(c) The duplex is on a lot that was identified as a duplex lot in a subdivision.

(5) Triplex. When located in R-1, a triplex shall be on a lot that was identified as a triplex lot in a subdivision.

(6) Four-plex. When located in R-1, a fourplex shall be on a lot that was identified as a four-plex lot in a subdivision.

(7) C-1 Neighborhood Commercial in Residential Zones. Uses permitted outright in the C-1 Neighborhood Commercial zone shall be permitted in any residential zone through the planned unit development process with a demonstration that the commercial uses will serve residents living in the PUD.

(8) C-1 Neighborhood Commercial in R-2, R-3 and R-4 Zones. Uses permitted outright or subject to site review in the C-1 Neighborhood Commercial zone shall be conditionally permitted in the R-2, R-3 and R-4 zone when the minimum residential density is achieved on the development site. All applicable standards for uses in the C-1 zone shall be complied with or granted an adjustment through the conditional use permit process except as follows:

(a) Neighborhood Commercial uses being approved through the conditional use permit process shall be located on arterial streets.

(b) In R-2, EC 9.2161(1) Small Business Incentives in C-1 shall not apply. Instead, each individual business shall be limited to a total of 2,500 square feet of floor area.

(c) Buildings within the maximum front yard setback shall be oriented toward the street.

(d) Maximum front yard setback shall be no greater than the predominant front yard original setback line in the immediate vicinity.

(e) No off-street parking shall be located between the front facade of any building and the primary adjacent street. This standard applies to new buildings and to completely rebuilt projects constructed after August 1, 2001.

(f) In new development, 60% of the site frontage abutting a street shall be occupied by a building within the maximum setback or by an enhanced pedestrian space. No more than 20% of the 60% may be an enhanced pedestrian space.

(g) Building Entrances:

1. All building sides that face an adjacent public street shall feature at least one customer entrance.
2. Building sides facing two public streets may feature one entrance at the corner.
3. Each commercial tenant of the building, unless an accessory to the primary tenant, shall be accessed through individual storefront entrances facing the street.

(h) Ground floor walls shall contain display windows across a minimum of 50 percent of the length of the street-facing wall of the building. Windows meeting the criteria of display windows shall have sills at 30 inches or less above grade.

(9) Permitted, subject to the PRO zone use limitations and standards in Table 9.2630, EC 9.2631 and EC 9.2640.

(Section 9.2741, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02; amended by Ordinance No. 20270, enacted November 25, 2002, effective December 25, 2002; Ordinance No. 20285, enacted March 10, 2003, effective April 9, 2003; Ordinance No.

/PD Planned Unit Development Overlay Zone

9.4300 **Purpose of /PD Planned Unit Development Overlay Zone.** The /PD Planned Unit Development overlay zone is intended to achieve all of the following:

(1) Provide flexibility in architectural design, placement and clustering of buildings, use of open space and outdoor living areas, and provision of facilities for the circulation of automobiles, pedestrians, bicycles, and mass transit, parking, storage, and other considerations related to site design.

(2) Promote an attractive, safe, efficient, and stable environment that incorporates a compatible variety and mix of uses and dwelling types.

(3) Provide for economy of shared services and facilities.

(4) Encourage the construction of a variety of housing types at price ranges necessary to meet the needs of all income groups in the city.

(5) Enhance the opportunity to achieve higher densities.

(6) Preserve natural resource areas.

(Section 9.4300, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.4310 **Applicability.** The /PD overlay zone applies to all property where /PD is indicated on the Eugene overlay zone map, or when the PUD process is required by an adopted refinement plan. The PUD process may also be used at the request of the property owner. The provisions of the /PD overlay zone supplement those of the applicable base zone or special area zone. Where the overlay zone and base zone or special area zone provisions conflict, the more restrictive requirement applies. Within the /PD overlay zone, applications for development permits shall not be accepted by the city for development until the development is approved according to the PUD procedures beginning at EC 9.8300 Purpose of Planned Unit Development.

(Section 9.4310, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

/SR Site Review Overlay Zone

9.4400 **Purpose of /SR Site Review Overlay Zone.** The /SR Site Review overlay zone is intended to achieve both of the following:

(1) Maintain or improve the character, integrity, and harmonious development of an area.

(2) Provide a safe, stable, efficient, and attractive on-site environment.

(Section 9.4400, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.4410 **Applicability.** The /SR overlay zone applies to all property where /SR is indicated on the Eugene overlay zone map. In addition, the /SR overlay zone may be required by a refinement plan. Applications for development permits shall not be accepted by the city for development in a /SR overlay zone until the site review plan is approved according to the site review procedures in this land use code. The provisions of the /SR overlay zone supplement those of the applicable base zone or special area zone. Where the overlay zone and base zone or special area zone provisions conflict, the more restrictive requirement applies.

(Section 9.4410, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

/UL Urbanizable Land Overlay Zone

9.4600 **Purpose of /UL Urbanizable Land Overlay Zone.** The /UL Urbanizable Land Overlay Zone is intended to ensure that development activities in unincorporated areas will not inhibit future development at planned urban levels or the provision of services in an orderly, efficient, and timely manner. The /UL overlay zone coordinates development activity with procedures for systematic, logical, and equitable incorporation into the city limits and requires general conformance to the city's urban development standards.

(Section 9.4600, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.4610 **Applicability.** The /UL overlay zone applies to all unincorporated areas between the Eugene city limits and the Metropolitan Area General Plan urban growth boundary. The provisions of the /UL overlay zone supplement those of the applicable base zone or special area zone. Where the overlay zone and base zone or special area zone provisions conflict, the more restrictive requirement applies. The /UL overlay zone is automatically removed from land upon its annexation to the city.

(Section 9.4610, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.4620 **/UL Land Divisions and Property Line Adjustments.** Land shall not be divided and no lot lines may be adjusted in the /UL overlay zone if such division or modification would result in an increase in the number of developable lots or if the development potential of the existing lots increases. An exception to the requirements of this section may be granted by the planning director under either of the following circumstances:

(1) The resulting lots all exceed 40 acres in area.

(2) The subject property is owned or occupied by a government agency or public utility.

(Section 9.4620, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.4630 **/UL Urbanizable Land Overlay Zone Land Use and Permit Requirements.**

(1) The application of the /UL overlay zone does not change the list of uses permitted, conditionally permitted, or subject to special standards in the base zone or special area zone.

(2) The planning director may approve additional uses upon positive findings on all the following requirements:

(a) Key urban services are not located within 300 feet of the site.

(b) Execution of an annexation agreement as provided in EC 9.4640.

(c) Lane County approval of and certification that any proposed on-site sewage disposal system meets applicable state standards and that the system will not restrain the property's conversion to planned urban density and use in the future.

(3) Prior to development of a site the planning director may require submission of a conceptual plan showing that ultimate development of the subject property and surrounding area will be possible at urban densities and uses in accordance with applicable plans and ordinances.

6/1/02.)

9.4840 **Prohibited Practices.** Practices that are not specifically allowed under this section and that would adversely affect water quality or damage wildlife habitat, are prohibited within /WB areas. Prohibited practices include, but are not limited to, the following:

(1) Storage of chemical herbicides, pesticides, fertilizers or other hazardous or toxic materials.

(2) Depositing or dumping any material imported from off-site, except for soils or soil amendments used for replanting in accordance with provisions of this section.

(3) Construction of new septic drainfields.

(4) Channelizing or straightening natural drainageways.

(5) Removal or destruction of rare, threatened or endangered plant species, unless a conservation plan for the affected species is submitted by the applicant and approved by the planning director, in conjunction with the Oregon Department of Agriculture and the U.S. Fish and Wildlife Service.

(6) Filling, grading, excavating, depositing soils imported from off-site, and application of chemical herbicides, pesticides and fertilizers are prohibited unless they meet one of more of the following:

(a) Are directly related to a use permitted in the /WB area.

(b) Address an imminent threat to public health and safety.

(c) Result in enhancement of water quality, and enhancement or maintenance of stormwater conveyance capacity, flood control capacity, groundwater discharge and recharge capacity and wildlife habitat.

(Section 9.4840, see chart at front of Chapter 9 for legislative history from 2/26/01 through 6/1/02.)

9.4850 **Exceptions.** The planning director shall have authority to grant exceptions to the standard setback distances and permitted uses within /WB areas subject to site review approval and in accordance with the following provisions:

(1) **Criteria.** Exceptions shall be granted only if the applicant demonstrates in writing that at least one of the following exists:

(a) Through a combination of buffer enhancements and site design alterations a smaller buffer setback distance can provide protection to the resource that is equal to or better than that provided by the standard buffers specified above, including, but not limited to meeting or exceeding EC 9.2530 Natural Resource Zone Development Standards (1) through (4).

(b) No economically viable use allowed within the base zone or special area zone could occur as a result of the application of these setback and buffer provisions, and that this circumstance is not purposefully brought about by any deliberate action of the owner or developer of the property.

An exception shall be granted by the planning director in these cases, and Type II buffers of less than 50 feet are permitted on high value wetlands and Type II buffers of less than 25 feet are permitted on moderate value wetlands. Setbacks around high value wetlands shall not be less than 25 feet in any case.

(2) **Buffer Averaging.** Wherever practical, reductions in buffer distance from the standard buffer setback distances due to approved exceptions shall be

Appendix E
Division 51 (IAMP) Compliance

Appendix E
Division 51 (IAMP) Compliance

Interchange Area Management Plan Requirements (OAR 734-051) and Project Compliance
I-5/Beltline Interchange Project

Requirement	How Addressed
734-051-0125 Access Management Spacing Standards for Approaches in an Interchange Area (1) Access management spacing standards for approaches in an interchange are: (a) Based on classification of highway and highway segment designation, type of area, and posted speed; (b) Apply to properties abutting state highways, highway or interchange construction and modernization projects, planning processes involving state highways, or other projects determined by the region Manager; and (c) Do not apply to approaches in existence prior to April 1, 2000. Exception: (C) For a highway or interchange construction or modernization project or other roadway or interchange project determined by the Region Manager, the project will improve spacing and safety factors by moving in the direction of the access management spacing standards, with the goal of meeting or improving compliance with the access management spacing standards.	Interchange area is within the Urban Growth Boundary of both the City of Springfield and the City of Eugene with a posted speed of 60 miles per hour on I-5. The interstate segment is the demarcation line running north-south between the two cities. The interstate would be considered urban with respect to the spacing to the next adjacent interchange 1.2 miles farther south. The cross road of Interstate 5 is OR 69 ("Beltline Highway"), which is a Region Level highway between I-5 and Gateway Street to the east, and an access controlled Statewide highway with Freight Rote designation to the west. The interchange is in an urban setting with commercial and traveler related services. OR 69 becomes "Beltline Road" 0.22 miles (1,162 feet) east of I-5. The Highway has an operating speed of 55 mph, while the Road has a posted speed of 35 miles per hour. The Gateway/Beltline intersection was well established as of April 2000. The I-5/Beltline interchange upgrade project is found to improve safety and spacing factors. Project elements include conversion of Gateway Street at the Beltline intersection one way southbound (away from the interchange) – See EA preferred alternative. Improved access management on Beltline Rd. east of Gateway St. is anticipated as part of City's project development for that phase of improvement – See ODOT/Springfield IGA. The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).
(2) Spacing standards in Tables 5, 6, 7 and 8 and Figures 1, 2, 3, and 4, adopted and made a part of this rule, identify the spacing standards for approaches in an interchange area.	Minimum Spacing Standards Applicable to Freeway Interchanges with Multi-Lane Crossroads define the minimum distance to the next adjacent interchange ramp to ramp distance is approximately 1 mile and crossroad ramp distance to nearest public road is less than 1320 feet. The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).
(3) When the Department approves an application: (a) Access management spacing standards for approaches in an interchange area must be met or approaches must be combined or	There is no application for new approaches as part of the I-5/Beltline project. The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached)

Interchange Area Management Plan Requirements (OAR 734-051) and Project Compliance
I-5/Beltline Interchange Project

Requirement	How Addressed
eliminated resulting in a net reduction of approaches to the state highway and an improvement of existing interchange management areas spacing standards; and (b) The approach must be consistent with any applicable access management plan for an interchange.	
(4) Deviations must meet the criteria in OAR 734-051-0135.	The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter.
(5) Location of traffic signals within an interchange management area must meet the criteria of OAR 734-020-0400 through 734-020-0500.	No new signals on the state highway at public roads are planned.
(6) The Department should acquire access control on crossroads around interchanges for a distance of 1320 feet. In some cases it may be appropriate to acquire access control beyond 1320 feet.	There are no cross roads west of I-5 on Beltline Highway. The Department has access control on Beltline Highway east of I-5 to the Beltline/Gateway intersection. Per ODOT/Springfield IGA, Springfield will work to improve access management east of the signalized Gateway/Beltline intersection.
734-051-0135 Deviations from Access Management Spacing Standards (1) A deviation will be considered when an approach does not meet spacing standards and the approach is consistent with safety factors in OAR 734-051-0080(9). Roadway character, Traffic character, Geometric character, Environmental character, and Operational character	The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).
(2) For a private approach with no reasonable alternate access to the property, as identified in OAR 734-051-0080(2), spacing standards are met if property frontage allows or a deviation is approved as set forth in this section. The Region Manager shall approve a deviation for a property with no reasonable alternate access if the approach is located: (a) To maximize the spacing between adjacent approaches; or (b) At a different location if the maximized approach location: (A) Causes safety	No private approaches are being applied for as part of the I-5/Belltine interchange upgrade project.

Interchange Area Management Plan Requirements (OAR 734-051) and Project Compliance
I-5/Beltline Interchange Project

Requirement	How Addressed
or operation problems; or (B) would be in conflict with a significant natural or historic feature including trees and unique vegetation, a bridge, waterway, park, archaeological area, or a cemetery.	
(3) The Regional Access Management Engineer shall approve a deviation if: (a) Adherence to spacing standards creates safety or traffic operation problems; (b) The applicant provides a joint approach that services two or more properties and results in a net reduction of approaches to the highway; (c) The application demonstrates that existing development patterns or land holdings make joint use approaches impossible; (d) Adherence to spacing standards will cause the approach to conflict with a significant natural or historic feature including trees and unique vegetation, a bridge, waterway, park, archaeological area, or cemetery (e) The highway segment functions as a service road (f) On a couplet with directional traffic separated by a city block or more, the request is for an approach at mid-block with no other existing approaches in the block or the proposal consolidates existing approaches at mid-block; or (g) Based on the region Access Management Engineer's determination that: (A) Safety factors and spacing significantly improve as a result of the approach; and (B) Approval does not compromise the intent of these rules as set forth in OAR 734-051-0020.	The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).
(4) When a deviation is considered, as set forth in section (1) of this rule, and the application results from infill or redevelopment: (a) The Region Access Management Engineer may waive the requirements for a Traffic Impact Study and may propose an alternative solutions where: (A) The requirements of either	The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter.

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I-5/Beltline Interchange Project

Requirement	How Addressed
section (2) or section (3) of this rule are met; or (B) Safety factors and spacing improve and approaches are removed or combined resulting in a net reduction of approaches to the highway; and (b) Applicant may accept the proposed alternative solution or may choose to proceed through the standard application review process.	
(5) The Region Access Management Engineer shall require any deviation for an approach located in an interchange access management area, as defined in the Oregon Highway Plan, to be evaluated over a 20-year horizon from the date of application and may approve a deviation for an approach located in an interchange access management area if: (a) A condition of approval, included in the Permit to operate, is removal of the approach when reasonable alternate access becomes available; (b) The approach is consistent with an access management plan for an interchange that includes plans to combine or remove approaches resulting in a net reduction of approaches to the highway; (c) The applicant provides a joint approach that services two or more properties and results in a net reduction of approaches to the highway; or (d) The applicant demonstrates that existing development patterns or land holdings make utilization of a joint approach impracticable.	No approaches are being applied for as part of the I-5/Beltline interchange upgrade project. The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).
(6) The Region Access Management Engineer may approve a deviation for a public approach that is identified in a local comprehensive plan and provides access to a public roadway if: (a) Existing public approaches are combined or removed; or (b) Adherence to the spacing standards will cause the approach to conflict with a significant natural or historic feature including trees and unique vegetation, a bridge, waterway, park, archaeological area, or cemetery	No approaches are being applied for as part of the I-5/Beltline interchange upgrade project. The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).

Interchange Area Management Plan Requirements (OAR 734-051) and Project Compliance
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Requirement	How Addressed
(7) The Region Access Management Engineer may require that an access management plan, corridor plan, transportation system plan, or comprehensive plan identifies measures to reduce the number of approaches to the highway to approve a deviation for a public approach.	The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).
(8) The Region Access Management Engineer shall not approve a deviation for an approach if any of the following apply: (a) Spacing standards can be met even though adherence to spacing standards results in higher site development costs. (b) The deviation results from a self-created hardship including: (A) Conditions created by the proposed site plan, building footprint or location, on-site parking, or circulation; or (B) Conditions created by lease agreements or other voluntary legal obligations. (c) The deviation creates a significant safety or traffic operation problem.	The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).
(9) The Region Access Management Engineer shall not approve a deviation for an approach in an interchange access management area where reasonable alternate access is available and the approach would increase the number of approaches to the highway.	The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).
(10) Where section (2), (3), (4), (5) or (6) of this rule cannot be met, the Region Manager, not a designee, may approve a deviation where: (a) The approach is consistent with safety factors; and (b) The Region Manager identifies and documents conditions or circumstances unique to the site or the area that support the development.	The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).
(11) Approval of a deviation may be conditioned upon mitigation measures set forth in OAR 734-051-0145.	The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).

Interchange Area Management Plan Requirements (OAR 734-051) and Project Compliance
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Requirement	How Addressed
(12) Denial of a deviation is an appealable decision.	The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).
734-051-0145 Mitigation Measures (1) The Department may require mitigation measures on the state highway or the subject property to comply or improve compliance with the Division 51 rules for the continued operation of the existing approaches or construction of a new approach.	The Gateway/Beltline intersection was well established as of April 2000. The I-5/Beltline interchange upgrade project is found to improve safety and spacing factors. Project elements include conversion of Gateway Street at the Beltline intersection one way southbound (away from the interchange) – See EA preferred alternative. Improved access management on Beltline Rd. east of Gateway St. is anticipated as part of City's project development for that phase of improvement – See ODOT/Springfield IGA. The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).
(2) Unless otherwise set forth in Division 51 rules, the cost of mitigation measures is the responsibility of the applicant, permittee, or property owner as set forth in OAR 734-051-0205.	Mitigation costs are incorporated as part of project development and factored into the estimated construction costs.
(3) Mitigation measures may include: (a) Modifications to an approach; (b) Modifications of on-site storage of queued vehicles; (c) Installation of left turn or right turn channelization or deceleration lanes; (d) Modifications to left turn or right turn channelization or deceleration lanes; (e) Modifications required to maintain intersection sight distance; (f) Modification or installation of traffic signals or other traffic control devices. (g) Modification of the highway; (h) Modification or installation of curbing; (i) Consolidation of existing approaches or provisions for joint use accesses; (j) Installation of raised medians; (k) Restriction of turn movements for circumstances including: (A) The proximity of existing approaches or offset of opposing approaches; (B) Approaches within an Interchange Management Area, (C) Approaches along an Expressway; (D) Areas of insufficient decision sight distance for speed; (E) The proximity of railroad grade crossings; (F) Approaches with a crash history involving turning movements; (G) The functional area of an intersection ; and (H) Areas where safety or traffic operation problems exist. (l) Installations of sidewalks, bicycle lanes, or transit turnouts;	I-5/Beltline project elements include conversion of Gateway Street at the Beltline intersection one way southbound (away from the interchange) – See EA preferred alternative. Improved access management on Beltline Rd. east of Gateway St. is anticipated as part of City's project development for that phase of improvement – See ODOT/Springfield IGA (Appendix A).

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Requirement	How Addressed
(m) Development of reasonable alternate access; and (n) Modifications of local streets or roads along the frontage of the site.	
(4) Mitigation measures are directly related to the impacts of the particular approach on the highway and the scale of the mitigation measures will be directly proportional to the those impacts, as follows: (a) Where safety standards can be met by mitigation measures located entirely within the property controlled by the applicant or within existing state right of way, that will be the preferred means of mitigation. (b) Where safety standards cannot be met with measures located entirely within the property controlled by the applicant or within existing state right of way, ODOT will make an effort to participate in negotiations between the applicant and other affected property owners or assist the applicant to take necessary actions. (c) When cumulative effects of the existing and planned development create a situation where approval of an application would require mitigation measures that are not directly proportional to the impacts of the proposed approach, the Region Manager may allow mitigation measures to mitigate impacts as of the day of opening and defer mitigation of future impacts to ODOT project development provided the applicant conveys any necessary right of way to ODOT prior to development of the subject approach.	N/A
(5) Mitigation to an alternate access may be more significant where the property fronts a highway classification of highway than where the property fronts a lower classification of highway.	N/A - No applications for approaches to the highway are proposed.
(6) An applicant may propose an Access Mitigation Proposal or an Access Management Plan to be implemented by the applicant or the local jurisdiction.	N/A - No applications for approaches to the highway are proposed.

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Requirement	How Addressed
(7) The Department will work with the local jurisdiction and the applicant to establish mitigation measures and alternative solutions including: (a) Changes to on-site circulation; (b) On-site improvements; and (c) Modifications to the local street network.	N/A - No applications for approaches to the highway are proposed.
(8) Where mitigation measures include traffic controls: (a) The applicant bears the cost of the controls and constructs required traffic controls within a timeframe identified by the Department or reimburses the Department for the cost of designing, constructing, or installing traffic controls; and (b) An applicant that is a lessee must provide evidence of compliance with required traffic controls and must identify the party responsible for construction or installation of traffic controls during and after the effective period of the lease.	Mitigation for project development was considered an integral part of the Environmental Assessment and was integrated into the Project. I-5/Beltline project elements include conversion of Gateway Street at the Beltline intersection one way southbound (away from the interchange), and associated traffic control – See EA preferred alternative. Mitigation costs are incorporated as part of project development and factored into the estimated construction costs.
(9) Traffic signals are approved in the following priority: (a) Traffic signals for public approaches. (b) Private approaches identified in a Transportation System Plan to become public. (c) Private approaches.	The location of traffic signals is only for public approaches.
(10) Traffic signals are approved with the following requirements: (a) A signalized private approach must meet spacing standards for signalization relative to all planned future signalized public road intersections; and (b) The effect of the private approach must meet traffic operations standards, signals, or signal systems standards in OAR 734-020-0400 through 734-020-0500 and OAR 734-051-0115 and 734-051-125.	N/A - No private approaches are approved for signalization.

Interchange Area Management Plan Requirements (OAR 734-051) and Project Compliance
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Requirement	How Addressed
(11) All highway improvements within the right of way resulting from mitigation constructed by the permitee, and inspected and accepted by the Department, become the property of the Department.	N/A
(12) Approval of an application with mitigation measures is an appealable decision.	N/A
734-051-0155 Access Management Plans, Access Management Plans for Interchanges, and Interchange Area Management Plans (1) The Department encourages the development of Access Management Plans, Access Management Plan for Interchanges, and Interchange Area Management Plans to maintain highway performance and improve safety by improving system efficiency and management before adding capacity consistent with the 1999 Oregon Highway Plan.	The state highway system (I-5 and Beltline Highway west of Gateway St.) that is part of this project is fully access controlled. This IAMP includes provision for access management on the local system (Gateway St.) part of the Project. Access management on the local system is carried out by implementation of the ODOT/Springfield IGA #20525, found at Appendix A, and made a part of this plan.
(2) Access Management Plans and Access Management Plans for Interchanges are developed for a designated section of highway with priority placed on facilities with high volumes or providing important statewide or regional connectivity where: (a) Existing developments do not meet spacing standards; (b) Existing development patterns, land ownership patterns, and land use plans are likely to result in a need for deviations; or (c) An access management plan would preserve or enhance the safe and efficient operation of a state highway.	OR 69 (Beltline Highway) is designated a Region level highway between I-5 and Gateway Street. Access spacing standards have been analyzed and reviewed with the Oregon Transportation Commission, City of Springfield, City of Eugene, Lane County, and property owners and businesses as a part of the I-5/Beltline Interchange Environmental Assessment. The I-5/Beltline project (Project) minimizes adverse impacts to existing business while providing necessary capacity for the design life of the facility. Access management on the local system is carried out by implementation of the ODOT/Springfield IGA #20525, found at Appendix A, and made a part of this plan.
(3) Access Management Plans and Access Management Plans for Interchanges may be developed: (a) By the Department; (b) By local jurisdictions; or (c) By consultants.	Access Management for the Project was developed through project coordination of the following: The Beltline Management Team (BMT) (ODOT and consultant management staff) in coordination with the City of Springfield, City of Eugene, and ODOT technical staff worked with the Beltline Decision Team (BDT) comprised of FHWA Operations Engineer, ODOT Area 5 Manager, Lane County Commissioner, City of Springfield Councilor, and City of Eugene Councilor as the decision making body, and

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I-5/Beltline Interchange Project

Requirement	How Addressed
	The Stakeholder Working Group (SWG), which represented a wide range of interests, including affected user groups and communities. The SWG reviewed detailed aspects of the project design, provided guidance to technical staff, and made recommendations to the BDT for alternatives addressing access management that were studied in the Environmental Assessment.
(4) Access Management Plans and Access Management Plans for Interchanges comply with all of the following: (a) Are prepared for a logical segment of the state highway and include sufficient area to address highway operation and safety issues and development of adjoining properties including local access and circulation. (b) Describe the roadway network, right of way, access control, and land parcels in the analysis area. (c) Are developed in coordination with local governments and property owners in the affected area. (d) Are consistent with any applicable adopted Transportation System Plan, Local Comprehensive Plan, Corridor Plan, or Special Transportation Area or Urban Business Area designation, or amendments to the Transportation System Plan. (e) Are consistent with the 1999 Oregon Highway Plan. (f) Contain short, medium, and long-range actions to improve operations and safety and preserve the functional integrity of the highway system. (g) Consider whether improvements to local street networks are feasible (h) Promote safe and efficient operation of the state highway consistent with the highway classification and zoning of the area. (i) Consider the use of the adjoining property consistent with the comprehensive plan designation and zoning of the area. (j) Provide a comprehensive, area-wide solution for the local access and circulation. (k) Are approved by the Department through an intergovernmental agreement and adopted by the local	The state highway system (Interstate 5 and Beltline Highway west of Gateway St.) that is part of this project is fully access controlled. This IAMP includes provision for access management on the local system (Gateway St.) part of the Project. Access management on the local system is carried out by implementation of the ODOT/Springfield IGA #20525, found at Appendix A, and made a part of this plan. Agreements in the IGA were reached through coordination of local government and affected property owners.

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Requirement	How Addressed
government, and adopted into a Transportation System Plan. (l) Are used for evaluation of development proposals (m) May be used in conjunction with mitigation measures.	
(5) The Department encourages the development of Interchange Area Management Plans to plan for and manage grade-separated interchange areas to ensure safe and efficient operation between connecting roadways: (a) Interchange Area Management Plans are developed by the Department and local government agencies to protect the function of interchanges by maximizing the a capacity of the interchanges for safe movement from the mainline facility, to provide safe and efficient operations between connecting roadways, and to minimize the need for major improvements of existing interchanges; (b) The department will work with local governments to prioritize the development of Interchange Area Management Plans to maximize the operational life and preserve and improve safety of existing interchange not scheduled for significant improvements; and (c) Priority should be place on those facilities on the Interstate system with cross roads carrying high volumes or providing important statewide or regional connectivity.	This IAMP is developed by ODOT and local governments to protect the function of the interchange, as Project investments are made, by maximizing the capacity of the interchange for safe movement from the mainline facility, to provide safe and efficient operations between connecting roadways, and to minimize the need for major improvements of existing interchanges. This IAMP is an agreed upon priority among ODOT and affected local governments. Phase 1 construction of the Project is scheduled for 2006 and carried in the 2004-2007 STIP (Statewide Transportation Improvement Program), Key # 14197. The IAMP is a condition of STIP programming.
(6) Interchange Area Management Plans are required for new interchanges and should be developed for significant modifications to existing interchanges consistent with the following: (a) Should be developed no later than the time an interchange is designed or is being redesigned; (b) Should identify opportunities to improve operations and safety in conjunction with roadway projects and property development or redevelopment and adopt strategies and development standards to capture those opportunities;	Phase 1 construction of the Project is scheduled for 2006 and carried in the 2004-2007 STIP (Statewide Transportation Improvement Program), Key # 14197. The IAMP is a condition of STIP programming. This IAMP has: Considered local circulation and property accesses in coordination with adjacent property owners and local government staff. Analyzed existing conditions and future needs through 2025 consistent with local plans and Oregon Highway Design Manual, for mobility for the purposes of determining lane configurations. See - Transportation Operational Analysis Report for the I-5/Beltline

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Requirement	How Addressed
(c) Should include short, medium, and long-range actions to improve operations and safety in the interchange area; (d) Should consider current and future traffic volumes and flows, roadway geometry, traffic control devices, current and planned land uses and zoning, and the location of all current and planned approaches; (e) Should provide adequate assurance of the safe operation of the facility through the design traffic forecast period, typically 20 years; (f) Should consider existing and proposed uses of all property in the interchange area consistent with its comprehensive plan designations and zoning; (g) Are consistent with any adopted Transportation System Plan, Corridor Plan, Local Comprehensive Plan, or Special Transportation Area or Urban Business Area designation, or amendments to the Transportation System Plan (h) Are consistent with the 1999 Oregon Highway Plan, and (i) Are approved by the Department through an intergovernmental agreement and adopted by the local government and adopted into a Transportation System Plan	Interchange, November 2001. (Appendix B) Analyzed queuing and progression to determine auxiliary lane lengths for right and left turn lanes. See - Transportation Operational Analysis Report for the I-5/Beltline Interchange, November 2001. (Appendix B) Been phased over time, including local system improvements, to address need and funding potential. The IAMP relies on existing local plan policies and ordinance provisions to provide adequate assurance of the safe operation of the facility through the design traffic forecast period. OTC adoption of the IAMP will create legal plan consistency between the IAMP and relevant local code provisions and plan policies such that future changes to those plans and codes would require a consistency with the IAMP. The IAMP is found to be consistent with the adopted Transportation System Plan (TransPlan) and the local comprehensive plan (MetroPlan). See Section 3. The IAMP is found to be consistent with the 1999 Oregon Highway Plan. See Section 3. The IAMP is approved by local government. IAMP provisions already exist within the local Transportation System Plan.
734-051-0285 Project Delivery (1) This rule applies to construction of new highways and interchanges, highway or interchange modernization projects, highway and interchange preservation projects, highway and interchange operations projects or other highway and interchange projects. Access Mitigation Strategies, Access Management Plans, and Access Management Plans for Interchanges are developed during project delivery to maintain highway performance and improve safety by improving system efficiency and management before adding capacity, as provided by this rule and consistent with the 1999 Oregon Highway Plan. All approaches identified to remain open in an area that is not access controlled in an Access Management Strategy, Access Management Plan, or	The Project was developed with the goal of working towards achieving the access spacing standards. Access controls are included as part of the Project to preserve capacity. Improved access management on Beltline Rd. east of Gateway St. is anticipated as part of City's project development for that phase of improvement – See ODOT/Springfield IGA. The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).

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Requirement	How Addressed
Access Management Plan for an Interchange Area are presumptively found to be in compliance with Division 51 rules once any measures prescribed for such compliance by the plan are completed, and subsequent changes will be measured from that status. However, that status does not convey a grant of access.	
(2) The Region Manager shall develop Access Management Strategies for modernization projects, projects within an influence area of an interchange where the project includes work along the crossroad, or projects on an expressway and may develop Access Management Strategies for other highway projects.	Access Management Strategies for the I-5/Beltline project includes: Conversion of Gateway Street at the Beltline intersection to one way southbound (away from the interchange) – See EA preferred alternative. Improved access management on Beltline Rd. east of Gateway St. as part of City's project development for that phase of improvement – See ODOT/Springfield IGA (Appendix A).
(5) The Region Manager may require modification, mitigation, or removal of approaches within project limits: (a) Pursuant to either: (A) An Access Management Plan or an Access Management Plan for an Interchange adopted by the Department or (B) An approve Access Management Strategy; and (b) If necessary to meet the classification of the highway or highway segment designation, mobility standards, spacing standards, or safety factors; and (c) If a property with an approach to the highway has multiple approaches and if a property with an approach to the highway has alternate access in addition to the highway approach. (d) The determination made under subsections (a) through (c) of this section must conclude that the net result of the project including closures, modification and mitigations will be that access will remain adequate to serve the volume and type of traffic reasonably anticipated to enter and exit the property, based on the planned uses for the property.	Access Management Strategies for the I-5/Beltline project includes: Conversion of Gateway Street at the Beltline intersection to one way southbound (away from the interchange) – See EA preferred alternative. Improved access management on Beltline Rd. east of Gateway St. as part of City's project development for that phase of improvement – See ODOT/Springfield IGA (Appendix A).

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Requirement	How Addressed
(6) Access Management Strategies comply with all of the following: (a) Are developed for the project limits, a specific section of the highway within the project limits, or to address specific safety or operational issues within the project limits. (b) Must improve access management conditions to the extent reasonable within the limitation, scope, and strategy of the project and consistent with design parameters and available funds. (c) Promote safe and efficient operation of the state highway consistent with the highway classification and the highway segment designation. (d) Provide for reasonable use of the adjoining property consistent with the comprehensive plan designation and zoning of the area. (e) Are consistent with any applicable adopted Access Management Plan, Transportation System Plan or Corridor Plan.	Conditions have been met as described in previous responses.
(7) Access Management Plans comply with all of the following: (a) Must include sufficient area to address highway operation and safety issues and the development of adjoining properties including local access and circulation. (b) Must improve access management conditions to the extent reasonable within the limitation and scope of the project and be consistent with the design parameters and available funds. (c) Describe the roadway network, right-of-way, access control, and land parcels in the analysis area. (d) Are develop in coordination with local governments. (e) Are consistent with any applicable adopted Transportation System Plan, corridor Plan, or Special Transportation area or Urban Business Area designation, or amendments to the Transportation System Plan.	See previous responses.

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Requirement	How Addressed
(f) Are consistent with the 1999 Oregon Highway Plan. (g) Contain short, medium, and long-range actions to improve operations and safety and preserve the functional integrity of the highway system. (h) Consider whether improvements to local street networks are feasible. (i) Promote safe and efficient operation of the state highway consistent with the highway segment designation. (j) Consider the use of the adjoining property consistent with the comprehensive plan designation and zoning of the area. (k) Provide a comprehensive, area-wide solution for local access and circulation. (l) Are approve by the Department through an intergovernmental agreement and adopted by the local government, and adopted into a Transportation System Plan.	
(8) In the event of a conflict between the access management spacing standards and the access management spacing standards for approaches in an interchange area the more restrictive provision will prevail. These spacing standards are used to develop Access Management Plans for Interchanges and where appropriate: (a) Support improvements such as road networks, channelization, medians, and access control, with an identified committed funding source, and consistent with the 1999 Oregon Highway Plan; (b) Ensure that approaches to cross streets are consistent with spacing standards on either side of the ramp connections; and (c) Support interchange designs that consider the need for transit and park-and-ride facilities and the effect of the interchange on pedestrian and bicycle traffic.	Access Management Strategies for the I-5/Beltline project includes: Conversion of Gateway Street at the Beltline intersection to one way southbound (away from the interchange) – See EA preferred alternative. Improved access management on Beltline Rd. east of Gateway St. as part of City's project development for that phase of improvement – See ODOT/Springfield IGA (Appendix A). The Region 2 Access Management Engineer has approved a deviation for interchange area access management for this project – See Approved Deviation Letter (attached).

Interchange Area Management Plan Requirements (OAR 734-051) and Project Compliance
I-5/Beltline Interchange Project

Requirement	How Addressed
(9) Notwithstanding other provisions of this Division, the Region Manager, not a designee, may recognize an approach to be in compliance where there is no Access Control, and where construction details for a Department project show the intention to preserve the approach as part of that project, as documented by plans dated before the original effective date of Division 51, April 1, 2000.	N/A

Oregon Department of Transportation

Region 2

INTEROFFICE MEMO

TO: Jeff Scheick, P.E., Region-2 Manager

FROM: Dave Warren, P.E., Region-2 Access Management Engineer

DATE: July 29, 2005

SUBJECT: Standards Deviations for I-5/Beltline Interchange Area Access Management

I have reviewed the access management measures for the I-5/Beltline Interchange Project that are included in the Interchange Area Management Plan (IAMP). On the basis of this review, I am authorizing the deviations noted in the IAMP, which are integral to the project's selected alternative of the approved Environmental Assessment. The deviation for access spacing is on the basis that the improvements are being designed to improve safety and operations while moving toward the access spacing standards identified in Table 6 of OAR Chapter 734, Division 51, Spacing Standards Applicable to Freeway Interchanges with Multi-Lane Crossroads.

Full compliance with the access spacing standards would result in significantly more investment to reconstruct local streets, relocate utilities, and additional displacements of building improvements beyond those already part of the selected alternative. The authorized deviations are listed below:

1. Table 6 of OAR Chapter 734, Division 51 establishes Spacing Standards Applicable to Freeway Interchanges with Multi-Lane Crossroads. The recommended distance to first intersections where left turns are allowed is 1320 feet. This spacing standard would apply to the distance between the northbound ramp terminal and the Gateway Street/North Game Farm Road intersection. Upon completion of the project this distance will be approximately 820 feet, which is 500 feet less than the required 1320-feet.

2. OAR 734-051-0125(6) recommends that access control be acquired on crossroads around interchanges for a distance of 1,320 feet. Upon completion of this project access control will be maintained for a distance of 820 feet along the Beltline Highway from the northbound ramp terminal to the Gateway Street/Beltline Road intersection. To meet the recommended 1,320 feet, ODOT would need to purchase access control on Beltline Road east of the Gateway Street/Beltline Road intersection. Beltline Road east of Gateway Street is under the jurisdiction of the City of Springfield.

Cc: Karl Wieseke, Project Leader
Gerry Juster, Access Development Review Coordinator
Victor Alvarado, Senior ROW Agent
Terry Cole, Special Projects Coordinator

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Appendix F
Local Agency Letters of Consistency

CITY OF SPRINGFIELD, OREGON

CITY MANAGER'S OFFICE
CITY RECORDER
COMMUNICATIONS
COMMUNITY RELATIONS

225 FIFTH STREET
SPRINGFIELD, OR 97477
(541) 726-3700
FAX (541) 726-2363

October 24, 2005

Erik Havig
Region 2 Planning and Development Manager
Oregon Department of Transportation
455 Airport Road SE, Bldg. B
Salem, OR 97301-5395

RE: I-5/Beltline Interchange Area Management Plan

Dear Mr. Havig:

The purpose of this letter is to respond to your request that the City of Springfield provide ODOT with a letter confirming that the draft I-5/Beltline Interchange Area Management Plan ("I-5/Beltline IAMP") is consistent with the City's local comprehensive plan and development code.

This will confirm that, regarding the comprehensive plan and code provisions described in Section 2 of the I-5/Beltline IAMP, those provisions are consistent with the City's currently adopted and acknowledged comprehensive plan and code in effect on October 30, 2005.

Please note that the Eugene-Springfield comprehensive plan has an adopted plan diagram; only the adopted plan diagram may be used to determine consistency. In respect to the provisions regarding plan implementation, the City will continue to coordinate with ODOT regarding proposed plan amendments that may affect ODOT facilities to ensure consistency with the Oregon Highway Plan.

Sincerely,

Michael A. Kelly
City Manager

cc: Meg Kieran
Nick Arnis
Greg Mott
ODOT Springfield Office

City Manager's Office

City of Eugene
777 Pearl Street, Room 105
Eugene, Oregon 97401-2793
(541) 682-5010
(541) 682-5414 Fax
(541) 682-5045 TTY
www.ci.eugene.or.us

November 7, 2005

Erik Havig
ODOT Region 2 Planning and Development Manager
455 Airport Road, SE, Building B
Salem, Oregon 97301-5395

Dear Mr. Havig:

On October 7, 2005, the City of Eugene received the Oregon Department of Transportation's (ODOT) revised Interchange Area Management Plan (IAMP) for the I-5/Beltline Interchange Project. The transmitting e-mail message from Tom Boyatt stated that ODOT was asking the City to provide it with a consistency determination as described in Erik Havig's letter. Mr. Havig's letter stated that ODOT must receive written concurrence from each affected jurisdiction that the IAMP is compatible with applicable local plans and regulations before presenting it to the Oregon Transportation Commission (OTC) for ODOT adoption.

The City has reviewed the October 2005 draft of the IAMP for the I-5/Beltline Interchange Project. Based on this review of the draft IAMP and applicable local land use regulations, comprehensive plan provisions, refinement plan provisions and transportation system plan provisions, the City concurs with ODOT's conclusion that the proposed IAMP for the I-5/Beltline Interchange Project is consistent with these documents. The City cannot, however, verify the accuracy and consistency of the figures attached to the IAMP because the figures are not compatible with the City's adopted maps and diagrams. For example, Figure 2 is not reflective of either the acknowledged 1987 Metro Plan Diagram or the revised Metro Plan Diagram that has been adopted by the local jurisdictions but is not yet acknowledged. Additionally, Figure 5, a zoning map for the interchange management area, does not accurately depict the zoning designations for City property located within the interchange management area. Figure 5 denotes a great deal of land in the City as "residential," a zoning designation the City does not have, and it fails to depict the special area zones and overlay zones adopted by the City.

Regarding the "Plan Implementation" section in Section 2 of the IAMP, the City agrees that it cannot adopt code provisions that are inconsistent with the Eugene-Springfield Metropolitan Area General Plan (Metro Plan) and/or refinements to the Metro Plan, such as the Eugene-Springfield Metropolitan Area Transportation Plan (the metro area's TSP). Thus, to the extent that the City adopts all or part of the IAMP into the TSP, the City agrees that it could not adopt code provisions or plan amendments that are inconsistent with the IAMP provisions that are incorporated into the TSP. Further, the City will continue to coordinate with ODOT regarding proposed code and plan amendments that may affect ODOT facilities to ensure that the proposed amendments are consistent with the Oregon Highway Plan. To the extent that a proposed amendment to the City's local land use regulations or plans would not affect an ODOT facility,

the City will continue to process those amendments in accordance with local and state land use planning regulations.

Thank you for the opportunity to comment on the proposed IAMP for the I-5/Beltline Interchange Project. We appreciate ODOT's continued efforts to work with the local jurisdictions on this project and look forward to the construction of the project.

Sincerely,

Dennis M. Taylor
City Manager