# BURNS AND HINES ACCESS MANAGEMENT PLAN 

Prepared for:
Oregon Department of Transportation

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Outstanding Professionals

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## OVERVIEW

Access management along a highway corridor incorporates planning, design and implementation of land use and transportation policies and strategies that control the flow of traffic between the roadway and the surrounding land. Highway access management policies and strategies are designed to achieve a balance between the need to provide safe and efficient travel with the ability to access individual destinations. Implementation of appropriate highway access management measures can provide substantial benefits to a community, including:

- Protecting the functional operation of a highway, thus delaying or preventing costly highway improvements;
- Improving safety conditions along the highway for all users, including pedestrians and bicyclists;
- Facilitating a more constant traffic flow, thus reducing congestion, delays, overall vehicle miles of travel (VMT), fuel consumption and air pollution; and
- Promoting more desirable compact land development patterns.

In Oregon, state statutory law, administrative rules and several state policies and supporting documents guide planning and management of the State Highway System (SHS) including access management of highway segments within both urban and rural areas. Owners of property located adjacent to state highways in Oregon are required to obtain an approach ${ }^{1}$ road permit from the Oregon Department of Transportation (ODOT) even if they have a "common law" right of access to the state highway. ODOT is not required to issue an approach permit if an approach would be unsafe or otherwise inappropriate. In some cases, the right of access has been acquired and the property owner no longer $h$ as any common law right of access to the highway.

Statewide Planning Goal 12 serves as the State's general transportation policy and the Transportation Planning Rule (TPR) guides state, regional and local implementation of Goal 12. The TPR requires ODOT and local governments to prepare Transportation System Plans (TSPs) that identify facility and service improvements adequate to meet identified needs over a 20 -year planning period. All local TSPs must be consistent with the state TSP and associated modal and facility plans. The Oregon Transportation Plan (OTP) is the State's TSP and the Oregon Highway Plan (OHP) is the highwayspecific modal element of the OTP. The TPR also requires that local TSPs consider new connections to arterials and state highways that are consistent with designated access management categories (OAR 660-$12-020(2)(\mathrm{b})$ ). The current OHP, adopted by the Oregon Transportation Commission (OTC) in July 1999, contains an access management goal (Goal 3) and several policies that provide guidance for access management along various types of state highway segments.

In 1999, DEA was contracted by ODOT to prepare TSPs for both Burns and Hines. When the Burns and Hines TSPs were being prepared, ODOT was in the process of preparing a new OHP with revised access spacing standards. To avoid potential inconsistencies between the access management standards developed in the TSPs for Burns and Hines, and the Access Management Policy identified in the 1999 OHP, ODOT delayed the review of highway access standards for the Burns and Hines TSPs until the 1999 OHP was adopted. Since the OHP has been adopted, DEA prepared this Access Management Plan

[^0]for ODOT, Region 5 in collaboration with the cities of Burns and Hines in Harney County, Oregon. This Access Management Plan supplements the TSP prepared for each city by DEA in 1999 and is consistent with OHP Policy 1B and the TPR.

The purpose of this is report is to:

1) Complete an inventory of existing access spacing for public and private approaches along the highway segments within the urban growth boundaries (UGBs) of Burns and Hines;
2) Compare the existing highway access spacing in Burns and Hines with the access spacing standards and access management provisions contained in the 1999 Oregon Highway Plan (OHP);
3) Qualitatively evaluate the general direction of potential future development along the state highways in the urbanizing areas of Burns and Hines in relation to the access management provisions contained in the OHP; and
4) Identify recommended access management strategies to be implemented as future development occurs along the highways in Burns and Hines that will be compatible with the State's access management provisions and standards contained in the OHP.

In order to effectively address access management at the planning level, it is critical to focus upon the interdependent relationship between land use and transportation within urban and urbanizing area such as Burns and Hines. ODOT recognizes this nexus and has promulgated a framework for addressing access management through Goal 3: Access Management and related policies contained in the 1999 OHP.

The recommended access management strategies described in this report consist of both land use and transportation policies and regulatory mechanisms, and transportation facility improvements to be implemented by both the cities of Burns and Hines in collaboration with ODOT. The recommendations are aimed at managing the spacing of intersections and approaches along specific highway segments in a manner that is compatible to the existing and anticipated development along the state highways in Burns and Hines. While some of the access management recommendations contained in this plan should be implemented immediately, most of the recommended measures should be applied as redevelopment, new development, change of use, or highway projects affecting existing legal approaches occurs. The optimal solution resulting from the implementation of this access management is a more balanced system that provides access to connecting roadways and adjacent properties while maintaining the safety and efficiency of traffic movement along the state highways in the urban and urbanizing areas of Burns and Hines.

## EXISTING CONDITIONS

The cities of Burns and Hines are located in Harney County, Oregon, in the southeastern portion of the state. The two cities share a common border and form a self-contained urban area that provides a variety of residential, shopping, employment and recreational opportunities. The population of Burns is approximately 3,000 persons and the population of Hines is approximately 1,600 . The economy of both communities has historically been based in forestry, manufacturing, and livestock.

US Highways 20 and 395 (US 20/395), also known as the Central Oregon Highway, share the same alignment through Burns and Hines. US 20/395 is the primary highway that bisects the two contiguous cities. In addition to US 20/395, Oregon State Highway 78 (OR 78), also known as the Steens Highway, serves the eastern portion of Burns. These two state highways serve as the major arterials that carry most traffic through the Burns and Hines urban areas. US 20/395 is also designated in the OHP as a freight route.

## CITY OF BURNS

The City of Burns is the Harney County seat and the county's largest population center and commercial hub. According to the Burns Comprehensive Plan, completed in 1997, approximately 248 acres of the City are presently developed for commercial purposes. Of this amount, approximately 87 acres are developed as general commercial uses, primarily the central business district. An additional 161 acres has been developed for highway commercial activities, primarily along the Highway 20/395 corridor through Burns. Approximately 400 acres of the combined Burns/Hines urban area is presently devoted to industrial use.

Burns has generally developed around a traditional grid pattern street system. In Burns, the major arterial network consists of US 20/395 which follows the alignment of Oregon Avenue, Hines Boulevard, Monroe Street, Broadway Avenue and Seneca Drive, and OR 78 which follows the alignment of Monroe Street east of Broadway Avenue. In the downtown area, Broadway Avenue functions in a similar fashion to other state highway segments that serve as the primary commercial artery or "Main Street" to numerous small cities throughout Oregon. Most of the central city street grid system is comprised of street blocks that range in size, but are typically 240 feet square. Block lengths and corresponding street-to-street spacing distances increase along higher speed sections of US 20/395 and OR 78 that are peripheral to the downtown core.

The north-south segment of US 20/395 is a two-lane highway from Monroe Street to the northern city limit. West of Broadway Avenue, US 20/395 is four lanes, with addition of a two-way center turn lane from south of Pierce Street to the south city limit. Curbs and sidewalks are located along US 20/395 from ' D ' Street to the south city limit. On street parking is also provided along both sides of Broadway Avenue between Monroe Street and 'D' Street. No curbs, sidewalks, bikeways or on-street parking are provided along US 20/395 north of Foley Drive to the north city limit/UGB. A mix of paved and unpaved roadway shoulders ranging between four and six feet in width are provided along this segment. No shoulders exist along US 20/395 between 'D' Street and Foley Drive.

The posted speed limit on US 20/395 is 25 miles per hour through the central portion of Burns, from a location directly southwest of the highway's intersection with Jackson Street and Harney Avenue to the " $Y$ " intersection north of downtown where the highway diverts east from Broadway Avenue along Seneca Drive. The speed limit increases to 35 miles per hour south of this segment to the south city limit, and
north of this segment the posted speed increases incrementally from 35 to 45 to 55 miles per hour near the north city limit/UGB.

In the Burns downtown commercial area where the grid system is most dense, traffic volumes are relatively low, traffic is slow moving, and turning movements are dispersed over many intersections, eliminating the need for traffic signals. This connective street network is complemented by sidewalks and adjacent commercial properties with shops located close to the street. Convenient on-street parking is available throughout downtown Burns and few properties have parking lots with driveway access off US $20 / 395$. Although the intersection frequency and relatively short block lengths that are characteristic of the traditional urban street grid network in downtown Burns may appear to be in direct conflict with some of the principles of access management, both contribute to improved capacity and traffic flow on US $20 / 395$. This well-connected grid system provides opportunities for local drivers to use the local street system to travel through the community rather than forcing them onto US 20/395 and OR 78. This connectivity also encourages walking and bicycling between surrounding residential neighborhoods and downtown businesses. The addition of new approaches along US 20/395 and OR 78 in Burns' downtown core would adversely affect the safety and operating capacity of the highway and degrade the City's historic downtown character.

US 20/395 diverts from the traditional grid network north of the downtown area beginning at Park Street and west of the City's core beginning at Grand Avenue. The segment of US 20/395 extending southwest of the downtown core toward the Burns-Hines boundary is surrounded by predominantly highwayoriented, commercial "strip" development with roadway and driveway approaches that form angled intersections with the highway.

Within the City of Burns, OR 78 extends east of Broadway Avenue along Monroe Street to the boundary that defines the Burns eastern city limit and UGB. The posted speed limit on OR 78 is 25 miles per hour along the segment between Broadway Avenue and Gordonia Avenue, and 40 miles per hour east of Gordonia Avenue to the city limit/UGB. Within Burns, OR 78 is a two-lane highway with a combination of paved and unpaved shoulders that range between four and six feet in width. No curbs, sidewalks, bikeways or on-street parking are provided along OR 78 in Burns. Existing land uses adjacent to OR 78 generally consist of a mixture of commercial and residential properties interspersed with vacant, undeveloped lots. Without curbs, the interface between the roadway shoulder and adjacent properties is undefined. This continuous "shoulder access" between the highway and adjacent properties is particularly evident along the south side of OR 78 between Alder Avenue and Gordonia Avenue. Access conditions along OR 78 are further complicated by some adjacent businesses that limit off-street parking to "head-on" configurations that result in drivers backing out onto the highway shoulder area.

## CITY OF HINES

After Burns, Hines is the second largest urban area in Harney County. Hines is a predominately residential community with relatively few commercial or industrial uses within the City Limits. The city was platted around a unique pattern of concentric curved blocks combined with a rectangular grid. Circle Drive forms an elliptical loop surrounding a city park. US 20/395 is the only arterial in Hines and it bisects the central core of the city including a small commercial center, vacant public land, the city park and municipal buildings. In the center of Hines, where the posted speed is 35 mph , average block spacing along US Highway $20 / 395$ is approximately 400 feet on the east side of the highway and approximately 700 feet on the west side of the highway. As the highway proceeds northeast towards Burns, commercial strip development is interspersed with vacant land.

## EXISTING APPROACH SPACING

The locations of the state highways/major arterials, existing approaches, and adjacent land use (zoning) designations are shown on Sheets numbered 1-11 in Appendix D of this report. In Appendix C, Table C1 displays a detailed inventory of approaches along US 20/395 through Burns and Hines, and Table C-2 provides this information for OR 78 in Burns.

Table 1 summarizes existing approach spacing distances for different segments of US 20/395 within Burns and Hines. Table 2 provides corresponding information along OR 78 within Burns. The existing posted speed limit (miles per hour) delimits the segments identified in each table. Numbers in bold text within each table represent locations where current access spacing meets the 1999 OHP access spacing standards for Statewide highways (including US 20/395) and Regional highways (including OR 78) with or without a minor deviation. Numbers in normal text style do not meet the 1999 OHP access spacing standards.

In general, highway approach spacing within the lower speed, central portions of both the existing Burns and Hines urban areas deviates ${ }^{2}$ from the highway access spacing standards contained in both the 1991 and 1999 OHPs. However, the OAR 734-051-0190 states that existing legal approaches are not affected until redevelopment, change of use, or highway projects occur. This administrative rule and the 1999 OHP make clear that future development must make an effort to meet these standards or, at a minimum, move toward meeting the standards.

Some segments of highway that do deviate from the OHP standards may be appropriate for designation as Special Transportation Areas or Urban Business Areas. This designation would, of course, be based on these areas meeting special designation criteria.

[^1]TABLE 1
US 20/395: EXISTING APPROACH SPACING IN BURNS AND HINES BY SIDE OF HIGHWAY AND SPEED ZONE

| Speed Zone | Milepost | Side of <br> Highway | Street-to-Street <br> spacing (ft) | Driveway-to-Driveway or <br> Driveway-to-Street <br> spacing (ft) |
| :--- | :---: | :---: | :---: | :---: |
| Hines | $128.23-128.69$ | NW/SE | $976 / 1,722$ |  |
| 45 mph | $128.69-130.09$ | NW/SE | $652 / 415$ | $469 / \mathbf{1 , 2 8 6}$ |
| 35 mph |  |  |  | $168 / 281$ |
|  |  |  |  |  |
| Burns | $130.14-131.00$ | NW/SE | $1,401 / 380$ |  |
| 35 mph | $131.00-132.17$ | NW/SE | $238 / 272$ | $225 / 122$ |
| 25 mph | $132.17-132.32$ | NW/SE | $774 / 1000$ | $114 / 94$ |
| 35 mph | $132.32-132.57$ | NW/SE | $740 / \mathbf{1 , 3 2 0}$ | $774 / 189$ |
| 45 mph |  |  | $660 / 343$ |  |

Note: Numbers in bold typeface indicate spacing that presently meets the 1999 OHP access spacing standards for statewide highways. Numbers in normal typeface indicate spacing does not meet 1999 OHP access spacing standards.

Source: Field measurements of approach locations conducted by David Evans and Associates, Inc.

TABLE 2
OR 78: EXISTING ACCESS SPACING BY SIDE OF HIGHWAY AND SPEED ZONE

| Speed Zone | Milepost | Side of <br> Highway | Street-to-Street <br> spacing (ft) | Driveway-to-Driveway or <br> Driveway-to-Street <br> spacing (ft) |
| :--- | :---: | :---: | :---: | :---: |
| 25 mph | $0.00-0.32$ | $\mathrm{~N} / \mathrm{S}$ | $290 / 350$ | $100 / 70$ |
| 40 mph | $0.40-0.63$ | $\mathrm{~N} / \mathrm{S}$ | $730 / 400$ | $370 / 400$ |

Note: Numbers in bold typeface indicate spacing that presently meets the 1999 OHP access spacing standards for regional highways. Numbers in normal typeface indicate spacing does not meet 1999 OHP access spacing standards.
Source: Field measurements of locations conducted by David Evans and Associates, Inc.

## HISTORICAL AND CURRENT ACCESS MANAGEMENT PROVISIONS

The 1999 OHP is the most current document containing access management policies and standards. Previously, the 1991 OHP was the guiding document for access management.

Under a 1996 contract with the Oregon Department of Transportation (ODOT), DEA prepared a transportation report ${ }^{3}$ that included an analysis of prevailing highway access conditions along US 20/395 in Burns and Hines and recommended access spacing standards which attempt to comply with the 1991 Oregon Highway Plan (OHP), where possible.

## HISTORICAL PROVISIONS

Appendix A, Level of Importance (LOI) Policy, of the 1991 OHP classified the state highway system into four LOI categories (Interstate, Statewide, Regional and District) which were based on the relative significance and level of access control in effect along a particular highway section. The Levels of Importance were established to provide direction for managing limited resources to provided efficient highway service. In recognition of funding limitations, the 1991 OHP also designated some of the statewide highways as the Access Oregon Highway system to focus needed improvements on a system of highways that link major economic and geographic centers. Appendix B, Access Management Policy, of the 1991 OHP further classified the state highway system into six different categories based on projected cumulative effects of highway access considering several factors ${ }^{4}$.

At the time that the 1996 transportation report was prepared, US 20/395 through Burns and Hines was categorized in the 1991 OHP as a Statewide LOI, Category 4 - Limited Control highway, while OR 78 in Burns was categorized as a Regional LOI, Category 4 - Limited Control highway. In an urban area, both of these categories permit at-grade intersections or interchanges at a spacing of $1 / 4$ mile ( 400 meters) and private driveways are limited to intervals of 500 feet ( 150 meters).

Table 3 presents the recommended access spacing standards from the 1996 transportation report for US 20/395 in Burns and Hines.

[^2]TABLE 3
RECOMMENDED 1996 US HIGHWAY 20/395 ACCESS MANAGEMENT GUIDELINES

| Location | Milepost | Intersection Spacing | Driveway Spacing |
| :---: | :---: | :---: | :---: |
| Oregon Avenue | South of Study Area to MP 127.95 | $\left\{\begin{array}{l} 1991 \text { OHP - Category } 4- \\ 400 \text { meters ( } 1 / 4 \text { mile }) \end{array}\right.$ | $\left\{\begin{array}{l} 1991 \text { OHP - Category } 4- \\ 150 \text { meters (500 feet) } \end{array}\right.$ |
| Oregon Avenue | MP 127.95 to MP 130.51 | $\{300 \text { meters (984 feet) }$ | $\left\{\begin{array}{l} 150 \text { meters }(492 \text { feet }) \text { full access } \\ 75 \text { meters ( } 246 \text { feet }) \text { right in/out } \end{array}\right.$ |
| Hines Boulevard Monroe Street | MP 130.51 to MP 131.11 <br> MP 131.11 to MP 131.50 | $\left\{\begin{array}{l} \text { Major Crossing } 450 \text { meters ( } 1476 \\ \text { feet) Others only as extension of } \\ \text { existing grid system } \end{array}\right.$ | $\left\{\begin{array}{l} 60 \text { meters }(197 \text { feet }) \\ 1 \text { per block maximum } \end{array}\right.$ |
| Broadway Avenue | MP 131.50 to MP 131.95 | $\left\{\begin{array}{l} \text { Only as extensions of existing grid } \\ \text { system } \end{array}\right.$ | $\left\{\begin{array}{l} \text { No new access } \end{array}\right.$ |
| Broadway Avenue Seneca Drive | MP 131.95 to MP 132.13 MP 132.13 to North of Study Area | $\left\{\begin{array}{l} 1991 \text { OHP - Category } 4- \\ 400 \text { meters ( } 1 / 4 \text { mile }) \end{array}\right.$ | $\left\{\begin{array}{l} 1991 \text { OHP - Category } 4- \\ 150 \text { meters (500 feet) } \end{array}\right.$ |

Source: US Highway 20 Traffic Analysis Burns/Hines Urban Area Section, David Evans and Associates, Inc., August 27, 1996.
The following excerpt from the 1996 transportation report details the specific access recommendations.

## Recommended access spacing guidelines from 1996 report:

Along Monroe Street and Hines Boulevard, commercial development is more likely to have off-street parking with driveway access off Highway 20. Major crossings, which either have traffic signals or may eventually become signalized, should be limited to a distance of 4 to 5 blocks. Driveways should be located off side streets when possible or combined and limited to one mid-block access. Limiting driveway access to right in/right out only would force vehicles to turn around on local streets before returning to the highway, increasing overall traffic volumes.

Along Oregon Avenue, the grid system concentrates around Barnes Avenue with longer blocks further north and south. It would be difficult to develop all adjacent land parcels with access on side streets only since some parcels might be several hundred feet from a side street. We recommend limiting full access to one per block at an average of 150 meter (492-foot) spacing. Right in/right out access at a spacing of 75 meters ( 246 feet) would enable parcels that cannot share driveways or access side streets to use the highway. Highway 20 would be improved to a 3-lane section for this roadway segment. A preliminary analysis of available capacity indicates that the system could accommodate the recommended level of access for the next 20 years.

## CURRENT PROVISIONS

Similar to the 1991 OHP, the 1999 OHP classifies state highway segments into different categories based on function. The five broad classifications defined in Policy 1A of the 1999 OHP include Interstate, Statewide, Regional, District, and Local Interest Roads. The Local Interest Road category was not included in the 1991 OHP. US 20/395 is classified as a Statewide Highway through Burns and Hines and OR 78 is classified as a Regional Highway in Burns.

The 1999 OHP supplements the five broad state highway categories described in Policy 1A with specific subcategories and special highway designations that are defined in other policies within the OHP. These supplemental categories and designations address special conditions affecting portions of the highway system that can be attributed to land uses, truck movement, the Scenic Byway designation, and significance as an emergency response route.

As described in the 1999 OHP, Policy 1B: Land Use and Transportation, recognizes that ODOT and local governments must work in unison to achieve accessibility and mobility goals for a balanced transportation system. Policy 1B implements the Oregon Transportation Plan's Urban Accessibility Policy to "assure balanced, multimodal accessibility to existing and new development within urban areas to achieve the state goal of compact, highly livable urban areas." As described in the 1999 OHP, application of Policy 1 B is appropriate for three different circumstances listed below. Each of these circumstances is applicable to different segments of the state highways through Burns and Hines:

- Existing conditions which do not meet the policy objectives. In these circumstances, the policy will be used to gain closer levels of compliance with the objectives and/or actions.
- A mixture of existing non-compliant conditions and new proposals, projects or developments where higher levels of compliance with the objectives and/or actions would be desirable. In these circumstances, ODOT, the affected local government and/or affected parties need to work out a way to best achieve compliance with the objectives and/or actions.
- New conditions or developments where there is an ability to fully comply with the policy objectives and/or actions.

In addition to the general highway classification spacing standards, the 1999 OHP includes provisions for special highway designations in urban areas such as Burns-Hines to address the three types of circumstances listed above. These special designations include Special Transportation Areas (STAs) and Urban Business Areas (UBAs).

An STA is a designation that may be applied to a state highway, when a downtown, business district or community center straddles the state highway within a community's UGB. The primary objective of an STA is to provide access to community activities, businesses and residences, and to accommodate pedestrian, and bicycle movements along and across the highway in a compact central business district. Access management in STAs corresponds to the existing city block for public road connections and discourages private driveways. However, where driveways are allowed and land use patterns permit, the minimum spacing for driveways is 175 feet or mid-block if the current city block spacing is less than 350 feet. In addition, the need for local access outweighs the consideration of maintaining highway mobility within a STA. The maximum volume to capacity ratio for state highways increases in an STA.

A UBA is a highway segment designation which recognizes existing areas of commercial activity or future nodes or various types of centers of commercial activity within urban growth boundaries on district, regional or certain statewide highways where vehicular accessibility is important to continued economic viability. The primary objective of the state highway in an Urban Business Area (UBA) is to maintain existing speeds while balancing the access needs of abutting properties with the need to move through traffic. UBAs may be located on regional highways where speeds are 35 miles per hour ( 55 kilometers per hour) or less and may be located on statewide highways where speeds are 35 miles per hour ( 55 kilometers per hour) or less under specific circumstances:

- Designations for existing UBAs are limited to only those special circumstances where the need for local access clearly equals or is greater than the need for mobility.
- Designations for new UBAs are limited to circumstances where the need for local access is greater than the need for mobility.


## COMPARISON OF 1991 AND 1999 ACCESS MANAGEMENT SPACING STANDARD MINOR DEVIATION LIMITS

Table 4 presents a comparison of highway access management spacing standard and minor deviation limits for statewide highways such as US 20/395 from the 1991 and 1999 OHP documents. Table 5 presents a comparison of highway access management spacing standardminor deviation limits for regional highways such as OR 78 from the 1991 and 1999 OHP documents. Both the 1991 and 1999 OHPs provide highway access management spacing standard minor deviation limits that prescribe appropriate distances between street intersections, and driveway-to-driveway and driveway-tointersection spacing. The 1999 OHP also implements a procedure by which an applicant may request consideration of a deviation from adopted access management standards and policies. Allowable driveway-to-driveway and driveway-to-street spacing has generally decreased under the 1999 OHP unless a minor deviation in spacing standards is granted. Minor deviations may be allowed if certain criteria are met. Any requests for spacing at less than the minimum deviation limit is considered a major deviation that requires technical review and approval from ODOT's Region Access Management Engineer.

TABLE 4
COMPARISON OF 1991 AND 1999 OREGON HIGHWAY PLAN ACCESS MANAGEMENT SPACING STANDARD AND MINOR DEVIATION LIMITS FOR STATEWIDE HIGHWAYS - URBAN SECTION (FT)


[^3]Source: 1991 OHP-Appendix B and 1999 Oregon Highway Plan-Appendix C.

TABLE 5
COMPARISON OF 1991 AND 1999 OREGON HIGHWAY PLAN ACCESS MANAGEMENT SPACING STANDARD AND MINOR DEVIATION LIMITS FOR REGIONAL HIGHWAYS - URBAN SECTION (FT)

## Street-to-Street Comparison (No Driveways between Streets)

|  | 1991 OHP | 1999 OHP |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Speed | Street | Other | Street* <br> Deviation | UBA | Street* <br> Deviation |  |
| $\geq 55 \mathrm{mph}$ | 1320 | 990 | 870 |  |  |  |
| 50 mph | 1320 | 830 | 680 |  |  |  |
| $40 \& 45 \mathrm{mph}$ | 1320 | 750 | 550 |  |  |  |
| $30 \& 35 \mathrm{mph}$ | 1320 | 600 | 375 | 425 | 375 | Existing block spacing |
| $\leq 25 \mathrm{mph}$ | 1320 | 450 | 350 | 350 | 350 | Existing block spacing |

Driveway-to-Driveway or Driveway-to-Street Comparison

|  | 1991 OHP | 1999 OHP |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Speed | Driveway | OtherDriveway* <br> Deviation | UBA $\quad$Driveway* <br> Deviation |  | STA |  |  |
| $\begin{gathered} >=55 \mathrm{mph} \\ 50 \mathrm{mph} \\ 40 \& 45 \mathrm{mph} \end{gathered}$ | $\begin{aligned} & 900 \\ & 830 \\ & 750 \end{aligned}$ | 900 700 <br> 830 540 <br> 750  | $\begin{aligned} & 200 \\ & 540 \\ & 460 \end{aligned}$ |  |  | If dr | are allowed, |
| 30 \& 35 mph | 600 | - 600 絃 300 | - 425 - | 300 | 175 | Or | mid-block |
| $\leq 25 \mathrm{mph}$ | 450 | - $450 \times 220$ | - $350{ }^{\text {- }}$ | 220 | 175 | Or | mid-block |

## SUMMARY OF FUTURE LAND USE ACTIONS ON ACCESS

This section presents the results of a qualitative evaluation of general future land use actions related to access management along US 20/395 in Burns and Hines and along OR 78 in Burns. This evaluation was based upon review of existing information, including the most current Comprehensive Plan and land use/zoning maps for each city.

## CITY OF BURNS

With the exception of a few areas that are zoned to preserve existing residential areas, public facilities, and open space, the majority of land located adjacent to US 20/395 and OR 78 in Burns is designated as General Commercial (CG) use. As described in the City's existing Zoning Ordinance, "The General (CG) Commercial zone is intended to preserve and enhance areas within the City dedicated to providing business goods and services to the resident population and the traveler. The intent is to provide compatible standards for the central business district, which is generally oriented to-pedestrians, and for the outlying commercial areas that are generally oriented to vehicles." While development and redevelopment of adjacent commercial properties will likely have the greatest impact on highway access management along US 20/395, development that includes other uses and intensities in other parts of the city may also affect traffic volume and access management along the highway. Access management strategies must be responsive to this possibility.

As conveyed in the comprehensive plan, the City uses a relatively aggressive growth rate of approximately $1.5 \%$ per year as the basis for projecting future community needs. Future commercial development is expected to continue according to past trends, with modest increases in shopping facilities, service outlets, and office space occurring over the planning period. Based on past community trends, and commercial land-use in other comparable cities, it is expected that 2.8 acres per 100 persons will be required for new commercial development through the year 2020. This need equates to 15 acres of land needed for general commercial purposes, and 28 acres needed for highway commercial uses.

The availability of industrial land and urban services to accommodate economic opportunities in the area is the next consideration in planning economic growth and diversification for the City. The demand for new undeveloped industrial and commercial land in Burns is likely to be quite limited, in light of the realistic forms of economic expansion and diversification in the City and County. The commercial and industrial lands inventoried above should provide a sufficient supply of land for the demand in new industrial land in the City and County during the 20-year planning period.

## CITY OF HINES

Compared to its population, the City of Hines has a relatively limited supply of commercial facilities. The citizens of Hines currently rely on the commercial establishments in Burns to meet much of their shopping and service needs. Only two percent of the Hines developed area, which encompasses approximately eight acres, is dedicated to commercial uses. Commercial uses in Hines are concentrated in two separate areas: the central portion of the community which contains a few restaurants, a store, a credit union, and a post office; and the commercial activity strip along Highway 20/395, both north and south of the City's central core.

Similar to the situation in Burns described in the previous section, most of the land adjacent to US 20/395 in Hines is zoned for future commercial use. In its zoning ordinance, the City of Hines identifies two types of commercial designations: Commercial (C) and Commercial Highway (CH). These designations provide opportunities for commercial growth in the future as demand for commercial uses increases with
population growth. As described in the Hines Zoning Ordinance, the purpose of the "C" designation is, "To serve the City of Hines as a center of commerce and government. It is further intended to contain an interrelationship of retail and service commercial enterprises, together with office, financial and governmental services and proximity to residential developments designed and situated so as to encourage a close relationship of one use to another. To provide adequate protection between differing uses and to provide means to help assure compatibility between neighboring uses." According to the zoning ordinance, the "CH" designation is applied, "To provide for a wide range of business activity and for those businesses which are appropriate to major thoroughfare or highway locations adjacent to existing built-up areas of the City." Except for a few areas that are zoned to preserve existing public uses including a central park and public golf course, land zoned as "C" aligns the segment of US 20/395 in the central portion of Hines from Pettibone Avenue south to the south city limit. Land zoned as " CH " extends along US 20/395 north of Pettibone Avenue to the north city limit, including a large area located east of the highway directly south of the north city limit.

The City of Hines Comprehensive Plan accounts for future residential, commercial and industrial growth within the UGB, including a substantial amount directed to undeveloped and underdeveloped areas located along the US 20/395 corridor between the central portion of Hines and the north city limit. As mentioned in the previous section, future commercial development along the highway will have the most direct access management implications compared to overall growth of other land uses in other areas of the community. The following narrative from page 99 of the Hines Comprehensive Plan pertains to potential future growth and strengthens the justification for access management of US 20/395 in Hines:
"...it is obvious that the majority of residential and commercial growth for the City of Hines should continue in a linear fashion along the highway axis."

However, while the comprehensive plan calls for this linear development along the highway, the plan must also be sensitive to avoid strip development and follow land use pattern recommendations found in the 1999 OHP. Policy 1B-Action 1B. 12 of the OHP encourages local governments to cluster commercial development in community centers or commercial centers with limited access to a state highway in order to reduce vehicle trips. Action 1B. 10 encourages development in STAs to be developed off of the highway or only on one side of the highway. The comprehensive plan must reflect a commitment to creating a compact urban form and to incorporating OHP recommendations.

## RECOMMENDED ACCESS MANAGEMENT STRATEGIES

The access management strategies described in this section include:

- Access management guidelines that were recommended in the 1996 Transportation Report, US Highway 20 Traffic Analysis, Burns/Hines Urban Area Section;
- Recommended access spacing standards that are consistent with the standards defined in the 1999 OHP, plus additional access management recommendations for OR 78; and
- Recommended actions to proceed with adoption and implementation of the Burns and Hines Transportation System Plans (TSPs) which contain recommended plan and ordinance amendments to promote access management.

The access management recommendations described herein are intended to protect the function of the state highways and to maintain a reasonable level of access to adjacent properties in Burns and Hines while not compromising safety and mobility for all highway users. The recommended access management spacing standards are generally not intended to eliminate existing intersections or driveways. However, in cases where traffic safety and efficiency are clearly served by closing or relocating connections, this option should be explored, along with ways to mitigate any negative impacts of the relocation.

## 1996 TRANSPORTATION REPORT RECOMMENDATIONS

The transportation report prepared by DEA in 1996 provides access management guidelines for the urban section of US 20/395 in Burns and Hines. In addition to the access management recommendations described further in this section, it is recommended that the Cities of Burns and Hines apply the access management guidelines from the 1996 report that are compatible with the 1999 OHP. Table 6 provides a summary of the recommended guidelines from the 1996 transportation report that are still considered to be applicable given the access management provisions contained in the 1999 OHP.

TABLE 6
US 20/395 (STATEWIDE HIGHWAY) THROUGH BURNS AND HINES:
RECOMMENDED ACCESS MANAGEMENT GUIDELINES FROM 1996 TRANSPORTATION REPORT

| Location | Milepost | Intersection Spacing | Driveway Spacing |
| :--- | :--- | :--- | :--- |
| Oregon Avenue | 127.95 to 130.51 | 300 meters (984 feet; only <br> consistent if Oregon Ave. is <br> $<45 \mathrm{mph}$. | 150 meters (492 feet): full access <br> 75 meters (246 feet): right in/out |
| Hines Boulevard <br> Monroe Street | 130.51 to 131.11 <br> 131.11 to 131.50 | Major crossing: 450 meters (1476 <br> feet); others only as extension of <br> existing grid system | 60 meters (197 feet) <br> One per block maximum |
| Broadway Avenue | 131.50 to 131.95 | Only as extensions of existing <br> grid system if in the designated <br> STA at $<35 \mathrm{mph}$. | No new approaches |

Note: * These are not designated STAs at this time.

## ACCESS MANAGEMENT STRATEGIES

In addition to the relevant access management guidelines provided in the 1996 transportation report, the recommended TSP adoption and implementation procedure described above, this section provides a description of access management recommendations that are compatible with the standards defined in the 1999 OHP for specific state highway segments through Burns and Hines. Table 7 provides a summary of the recommended access management strategies for US 20/395 and OR 78 in Burns and for US 20/395 in Hines.

In general, the recommendations described in this section support the continuing development of a connective grid street system with stronger access control further from the central areas of both Burns and Hines.

Both the City of Burns and the City of Hines should work with adjacent property owners and ODOT to identify opportunities to reduce and modify the number of direct, full access approaches along US 20/395 and OR 78. Recommended general options to reduce and manage the highway approaches include, but are not limited to:

1. Relocation of the highway approach to an intersecting or parallel roadway of lower functional classification.
2. Where Option 1 is not feasible, consolidation of multiple approaches into a single highway approach.
3. Use of a shared approach (joint driveway) between two or more individual properties.
4. Prohibition of left turn movements to and from the highway at intersections and driveways that do not meet the spacing standards as prescribed in the 1999 OHP.
5. Acquisition (by ODOT) of access rights-of-way at adjacent properties.
6. Improvement of off-system circulation to reduce the need for direct, full-access approaches.

## RECOMMENDED ACCESS SPACING

The spacing standards and other recommendations summarized in Table 7 (refer to pages 17 and 18) include designation of an STA between 'D' Street and Monroe Street on Broadway Avenue in downtown Burns, and consideration of potential UBA designations on US 20/395 from Broadway Avenue to Harney Avenue and through the central portion of Hines between the intersections with Byrd Street/Hotchkiss Lane and Bennett Avenue West. It is also recommended that the City of Burns consider designation of a UBA on the segment of OR 78 between Broadway Avenue and Gordonia Avenue.

1. In downtown Burns, the area along US 20/395 (Broadway Avenue) between 'D' Street and Monroe Street exemplifies the design features of a historic downtown. Within this eight-block segment, buildings (primarily commercial) are spaced close together, parking is on-street, sidewalks bind the street to the buildings, and the posted speed limit is 25 miles per hour. These elements, along with a compact development pattern with sufficient connectivity to the local street system may qualify this area for a STA highway segment designation.
2. Along with the suggestion in the adopted TSP, the City of Burns and ODOT will need to address the STA Management Plan directives under Policy 1B of the 1999 Oregon Highway Plan if the City decides to proceed with designation of an STA. Upon adoption of the TSP by the Burns City Council, a finding of Policy 1B compliance by ODOT's Transportation Development Division Deputy Director and a management plan is developed as an intergovernmental
agreement or memorandum of understanding potential, the City of Burns could designate this segment of US 20/395 as an STA. An STA designation allows reduced mobility standards, accommodates existing public street spacing and compact development patterns, and enhances opportunities to provide improvements for pedestrians and bicyclists in the downtown area.
3. One existing constraint related to the potential designation of an STA along US 20/395 is the highway's existing designation as a Freight Route. Implementation of the TSP recommendation to designate an alternate truck route around Burns (Option 6, Alternative 4 - Fry Lane and Highway 78 in the TSP) would facilitate an STA designation for the downtown segment of Broadway Avenue.
4. The spacing of existing approaches to adjacent commercial properties in the potential UBA segments identified in Table 7 and described above indicates that the need for local access is equal to or greater than the need for mobility in these areas. Each city should consider designation of these segments as a UBA and work with ODOT to formulate and implement a UBA Management Plan if the City and ODOT proceed with this designation.
5. At a minimum, spacing standards that meet the access management spacing standards specified in the 1999 OHP for the Statewide (US 20/395) and Regional (OR 78) Other highway segment category are recommended to be applied to highway segments that are not appropriate "candidates" for STA or UBA designation in Burns and Hines. Tables B-1 and B-2 in Appendix $B$ provide a summary comparison of the access management spacing standards to these standards that would be applied under this recommendation to the highway segments identified in Table 7, which are located outside the central portions of Burns and Hines.
6. As previously described, existing conditions along OR 78 include a lack of sidewalks and poorly defined, continuous shoulder access to adjacent properties. In addition to the recommended spacing standards listed in Table 7, construction of curbs and sidewalks is recommended along OR 78 to facilitate safe and convenient access for pedestrians, bicyclists, and drivers. It is recommended that the implementation of these improvements concur with related access management actions to reduce the number and width of driveways that are clearly defined by curb cuts along OR 78.

TABLE 7
US 20/395 AND OR 78 ACCESS MANAGEMENT RECOMMENDATIONS

| Segment <br> Burns: US 20/395 <br> (Sheet ID, Metric Station) | Recommendations |
| :---: | :---: |
| North Burns City Limit to Broadway Avenue/Alder Avenue East intersection $(9,1+715 \text { to } 9,1+079)$ | - New roadway approaches only as extensions of street grid system that meet the OHP standard for intersections ( 990 ft ) for Statewide Highway, Urban Other segments with $40-45 \mathrm{mph}$ speed limits. <br> - Where no reasonable alternative access is available, limit driveways to meet the OHP standard for driveways ( 990 ft .) through shared access between adjacent properties. <br> - Modify existing driveways as necessary to meet design standards defined in the adopted City of Burns Subdivision Ordinance. |
| Broadway Avenue/Alder Avenue East intersection to ' D ' Street $(9,1+079 \text { to Sheet } 8,0+781)$ | - No new roadway intersections. <br> - Driveway approach spacing should meet the OHP standard for driveways (550 ft .) for Other Urban Statewide Highway segments with 25 mph or lower speed limits. <br> - Where no reasonable alternative access is available, limit driveways to one per block through shared access point between adjacent properties. <br> - Modify existing driveways as necessary to meet design standards defined in the adopted City of Bums Subdivision Ordinance. |
| 'D' Street to Monroe Street $(8,0+781107,0+100)$ | - No new approaches. <br> - STA designation by City through coordination with ODOT as described under 1999 OHP Policy 1B. <br> - As redevelopment occurs, locate approaches on local streets and consider acquisition of existing approaches or access rights along US 20/395. <br> - Where no reasonable alternative access is available, limit driveways to one per block through shared access point between adjacent properties. |
| Broadway Avenue to Harney Avenue South (7, 54+ 363 to $6,53+617$ ) | - No new approaches. <br> - Consideration of UBA designation by City through coordination with ODOT. <br> - Driveway access spacing should meet the OHP standard for driveways ( 520 ft .) for a UBA with 25 mph or lower speed limit. <br> - As redevelopment occurs, locate approaches on local streets and consider acquisition of existing approaches or access rights along US 20/395. <br> - Where no reasonable alternative access is available, limit driveways to one per block through shared access point between adjacent properties. <br> - Modify existing driveways as necessary to meet design standards defined in the adopted City of Burns Subdivision Ordinance. |
| Harney Avenue South to Pierce Street East (6, 53+617 to 5, 52+668) | - No new approaches. <br> - Driveway access spacing should meet the OHPstandard for driveways ( 770 ft .) for Other Urban Statewide Highway segments with 30 and 35 mph speed limits. <br> - As redevelopment occurs, locate driveway approaches on local streets and consider acquisition of existing approaches or access rights along US 20/395. <br> - Where no reasonable alternative access is available, limit driveways to one per block through shared access point between adjacent properties. <br> - Modify existing driveways as necessary to meet design standards defined in the adopted City of Burns Subdivision Ordinance. |
| Pierce Street East to Burns-Hines City Limit (5, 52+668 to $5,52+150$ ) | - New roadway approaches only as extensions of existing grid system that meet the OHP standard for intersections ( 770 ft .) for Statewide Highway, Urban Other segments with 30 and 35 mph speed limits. <br> - Driveway access spacing should meet the OHP standard for driveways ( 770 ft .) for Other Urban Statewide Highway segments with 30 or 35 mph speed limits. <br> - As redevelopment occurs, locate driveway access on local street. <br> - Where no reasonable alternative access is available, limit driveways to one per block through shared access point between adjacent properties. <br> - Modify existing driveways as necessary to meet design standards defined in the adopted City of Burns Subdivision Ordinance. |


| Segment <br> Hines: US 20/395 | Recommendation |
| :---: | :---: |
| Hines - Burns City Limit to Bennett Avenue West $(4,52+150 \text { to } 3,51+080)$ | - New roadway approaches only as extensions of existing grid system that meet the OHP standard for intersections ( 770 ft .) for Statewide Highway, Urban Other segments with 30 and 35 mph speed limits. <br> - Driveway access spacing should meet the OHP standard for driveways ( 770 ft .) for Other Urban Statewide Highway segments with 30 or 35 mph speed limits. <br> - As redevelopment occurs, locate driveway approaches on local streets. <br> - Where no reasonable alternative access is available, limit driveways to one per block through shared access point between adjacent properties. <br> - Modify existing driveways as necessary to meet design standards defined in the adopted City of Hines Subdivision Ordinance. |
| Bennett Avenue West to Hotchkiss Lane (3, 51+080 to $1,48+850$ ) | - No new approaches. <br> - Consideration of UBA designation by City through coordination with ODOT. <br> - Driveway access spacing should meet the OHP standard for driveways ( 720 ft .) for a UBA with 30 and 35 mph speed limit. <br> - As redevelopment occurs, locate approaches on local streets and consider acquisition of existing approaches or access rights along US 20/395. <br> - Where no reasonable alternative access is available, limit driveways to one per block through shared access point between adjacent properties. <br> - Modify existing driveways as necessary to meet design standards defined in the adopted City of Burns Subdivision Ordinance. |
| Hotchkiss Lane to south of study area ( $1,48+850$ to south of study area) | - New roadway approaches only as extensions of a connective street system that meets the OHP standard for intersections ( 990 ft .) for Statewide Highway, Urban Other segments with $40-45 \mathrm{mph}$ speed limits. <br> - Where no reasonable alternative access is available, limit driveways to meet (at a minimum) the minor deviation limits for driveways ( 530 feet) through shared access between adjacent properties. <br> - Modify existing driveways as necessary to meet design standards defined in the adopted City of Burns Subdivision Ordinance. |


| Segment <br> Burns: OR 78 | Recommendation |
| :---: | :---: |
| Broadway Avenue to Gordonia Avenue ( $10,54+363$ to 11, 55+001) | - No new approaches. <br> - Consideration of UBA designation by City through coordination with ODOT. <br> - Driveway access spacing should meet the OHP standard for driveways ( 520 ft .) for a UBA with 25 mph or lower speed limit. <br> - As development and redevelopment occurs, locate approaches on local streets and consider acquisition of existing approaches or access rights along OR 78. <br> - Where no reasonable alternative access is available, limit driveways to one per block through shared access point between adjacent properties. <br> - Construct curbs and sidewalks and accommodate only driveways that meet the above spacing standards and design standards defined in the adopted City of Burns Subdivision Ordinance. |
| Gordonia Avenue to Burns City Limit/UGB ( $11,55+001$ to 11, Burns City Limits/UGB) | - No new intersections. <br> - Driveway access spacing should meet the OHP standard for driveways ( 750 ft .) for Other Urban Regional Highway segments with 40 and 45 mph speed limits. <br> - As development and redevelopment occurs, locate approaches on local streets and consider acquisition of existing approaches or access rights along OR 78. <br> - Where no reasonable alternative access is available, limit driveways to one per block through shared access point between adjacent properties. <br> - Modify existing driveways that meet above spacing standards as necessary to meet design standards defined in the adopted City of Burns Subdivision Ordinance. |

## TSP ADOPTION AND IMPLEMENTATION

To assure that the function of the state highways through Burns and Hines is protected through appropriate access management measures, it is recommended that each city work in collaboration with ODOT to implement the following four local policy-related measures to protect the existing and future function of the state highways, and to bring non-compliant highway segments into compliance upon redevelopment:

1. Adopt the Transportation System Plan (TSP) completed in October 1999 and implement the recommended improvements as described in the TSP.
2. Amend the existing comprehensive land use plan to incorporate the goals and objectives that are defined in Chapter 2 of the TSP, and the recommended policies contained in Chapter 9 of the TSP.
3. Amend the existing zoning and land division ordinances to incorporate the applicable recommended ordinances that are identified in Chapter 9 of the TSP.
4. Adopt the amended documents listed in items 1 and 2 above.

## APPENDICES

A. References
B. 1999 Oregon Highway Plan

Highway Access Spacing Standards
Tables B-1 and B-2
C. Burns and Hines Access Inventory and Comparison to 1999 Oregon Highway Plan Access Spacing Standards
Tables C-1 and C-2
D. Burns and Hines: Access Inventory Sheet A [Index]
Sheets 1-11

## APPENDIX A

## REFERENCES

## REFERENCES

"City of Burns Transportation System Plan." Prepared by David Evans and Associates, Inc, October 1999.
"City of Hines, Oregon. Comprehensive Plan." Prepared by Morgan, Ryan \& Associates, Inc; Revised 1986.
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"Highway Approaches, Access Control, Spacing Standards and Medians." Division 51, February 2000.
"The Oregon Administrative Rule - Division 51: Highway Approaches, Access Control, Spacing Standards and Medians." The Department of Transportation, Transportation Operations. November 2000.
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"Oregon Highway Plan." The Oregon Department of Transportation. 1991
"Reformatted Comprehensive Plan for the City of Burns, Oregon." Prepared by Tenneson Engineering Corporation; August 1997.
"US Highway 20 Traffic Analysis Burns/Hines Urban Area Section." Transportation Report. Prepared by David Evans and Associates, Inc; August 1996.
"Zoning Ordinances for the City of Burns, Oregon.", Prepared by Tenneson Engineering Corporation; April 1997.

## APPENDIX B

## 1999 OREGON HIGHWAY PLAN HIGHWAY ACCESS SPACING STANDARDS TABLES B-1 AND B-2

TABLE B-1
SPACING STANDARDS FOR STATEWIDE HIGHWAY (FEET) - URBAN SECTION
Street-to-Street and Driveway-to-Driveway or Driveway-to-Street Comparison

| Speed | Other |  |  | UBA |  |  | STA |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Other | Minor Deviation* Street-to-Street | Minor Deviation <br> Driveway-to-Driveway/* <br> Driveway-to-Street | $\begin{aligned} & \mathrm{UB} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | Minor Deviation* Street-to-Street | Driveway-to-Driveway/* Driveway-to-Street | STA | Minor Deviation Street-to-Street | Minor Deviation <br> Driveway-to-Driveway/* <br> Driveway-to-Street |
| $>=55 \mathrm{mph}$ | 1320 | 1000 | 870 |  |  |  |  |  |  |
| 50 mph | 1100 | 810 | 640 |  |  |  |  |  |  |
| 40 \& 45 mph | 990 | 740 | 530 |  |  |  |  |  |  |
| $30 \& 35 \mathrm{mph}$ | 770 | 600 | 350 | 720 | 600 | 350 | 175** |  |  |
| $<=25 \mathrm{mph}$ | 550 | 400 | 250 | 520 | 400 | 250 | 175** |  |  |

Source: 1999 Oregon Highway Plan
Note: * This is not a standard, and is allowed if certain criteria are met. Minor deviation tables are "Limits" used as the lowest point a minor deviation can go if all criteria are met. These can not be used as standards.
** If driveways are allowed, the 175 feet spacing standard is discouraged.
TABLE B-2
SPACING STANDARDS FOR REGIONAL HIGHWAY (FEET) - URBAN SECTION
Street-to-Street and Driveway-to-Driveway or Driveway-to-Street Comparison

| Speed | Other |  |  | UBA |  |  | STA |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Other | Minor Deviation* Street-to-Street | Minor Deviation <br> Driveway-to-Driveway/* <br> Driveway-to-Street | $\begin{array}{\|l\|} \mathrm{UB} \\ \mathrm{~A} \\ \hline \end{array}$ | Minor Deviation* <br> Street-to-Street | Driveway-to-Driveway/* <br> Driveway-to-Street | STA | Minor Deviation* Street-to-Street | Minor Deviation <br> Driveway-to-Driveway/* <br> Driveway-to-Street |
| $>=55 \mathrm{mph}$ | 990 | 870 | 700 |  |  |  |  |  |  |
| 50 mph | 830 | 640 | 540 |  |  |  |  |  |  |
| 40 \& 45 mph | 750 | 550 | 460 |  |  |  |  |  |  |
| $30 \& 35 \mathrm{mph}$ | 600 | 375 | 300 | 425 | 375 | 300 | 175** |  |  |
| $<=25 \mathrm{mph}$ | 450 | 350 | 220 | 350 | 350 | 220 | 175** |  |  |

Source: 1999 Oregon Highway Plan
Note: * This is not a standard, and is allowed if certain criteria are met. Minor deviation tables are "Limits" used as the lowest point a
minor deviation can go if all criteria are met. These can not be used as standards.
** If driveways are allowed, the 175 feet spacing standard is discouraged.

1) The elimination of separate standards for street-to-street spacing versus general approach spacing has allowed more flexibility for existing grid systems in cities.
2) The access management spacing standards themselves are more severe for private approaches for both the Other and UBA classification. Even the deviations are more severe at higher speeds for the Other classification.

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## APPENDIX C

BURNS AND HINES ACCESS INVENTORY AND COMPARISON TO 1999 OREGON HIGHWAY PLAN ACCESS SPACING STANDARDS TABLES C-1 AND C-2

TABLE C-1
US 20/395 THROUGH HINES AND BURNS COMPARISON TO 1999 OHP ACCESS SPACING STANDARDS FOR STATEWIDE HIGHWAY STANDARDS


| Sheet ID | $\begin{gathered} \text { Driveway } \\ \text { ID } \\ \hline \end{gathered}$ | Access / <br> Property Use | Metric <br> Station | Spacing <br> Between <br> Approaches (feet) | Compliance | Average <br> Spacing/ <br> Segment <br> (feet) | Compliance |  | Average Spacing/ <br> Block <br> (feet) | \# Driveways/ Block |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | North Circle Drive West | 50+702 | 211 |  |  |  | 456 | 185 | 2 |
|  | 26 | 212 Highway 20 (white res.) | $50+770$ | 53 |  |  |  |  |  |  |
|  | 27 | 220 Highway 20 (grey res.) | $50+795$ | 158 |  |  |  |  |  |  |
|  |  | Pettibonne Avenue West | $50+841$ | 317 | C |  |  | 784 | 158 | 4 |
|  | 28 | Tan Residence | $50+938$ | 53 |  |  |  |  |  |  |
|  | 29 | 328 Highway 20 (white res.) | $50+955$ | 106 |  |  |  |  |  |  |
|  | 30 | 328 Highway 20 (white res.) | $50+978$ | 106 |  |  |  |  |  |  |
|  | 31 | 344 Highway 20 (pink res.) | $51+017$ | 211 | C |  |  |  |  |  |
|  |  | Bennett Avenue West | $51+080$ | 158 |  |  |  | 781 | 167 | 5 |
|  | 33 | Exxon | $51+131$ | 158 |  |  |  |  |  |  |
|  | 34 | Exxon | $51+170$ | 53 |  |  |  |  |  |  |
|  | 35 | Egan's Tavern | $51+184$ | 158 |  |  |  |  |  |  |
|  | 36 | Egan's Tavern | $51+235$ | 158 |  |  |  |  |  |  |
|  | 37 | B \& B Sporting Goods | 51+280 | 106 |  |  |  |  |  |  |
| 4 |  | Conley Avenue West | $51+318$ | 370 | $A^{D D}, B^{\text {DD }}, C$ |  |  | 712 | 224 | 2 |
|  | 38 | Sundown Motel | $51+426$ | 264 | C |  |  |  |  |  |
|  | 39 | Sundown Motel | $51+510$ | 106 |  |  |  |  |  |  |
|  |  | Jameson Avenue West | $51+535$ | 158 |  |  |  | 1237 | 220 | 4 |
|  | 41 | Comfort Inn | 51+585 | 264 | C |  |  |  |  |  |
|  | 43 | Smerski | $51+664$ | 211 | C |  |  |  |  |  |
|  | 45 | Taylor's Equipment Locators | 51+724 | 211 | C |  |  |  |  |  |
|  | 47 | Apple Peddler Restaurant | $51+801$ | $370$ | $\mathrm{A}^{\mathrm{DD}}, \mathrm{B}^{\text {DD }}$ |  |  |  |  |  |
|  |  | Roe Davis Avenue West | $51+912$ | 106 |  |  |  |  | 92 | 4 |
|  | 49 | Ebar Oil | $51+943$ | 158 |  |  |  |  |  |  |
|  | 51 | Ebar Oil | $51+992$ | 53 |  |  |  |  |  |  |
|  | 52 | Leather's Oil (aka Texaco) | 52+010 | 53 |  |  |  |  |  |  |
|  | 33 | Leather's Oil (aka Texaco) | $52!027$ |  |  |  |  |  |  |  |
| - | Segment 2 N | VORTH HINES SE (Speed 3 | 52934 |  | 4 | $4$ |  | 4 | \% | --u-u- |
| 2 | 4 | Government Building (USFS, | 49+954 | $211$ | C | 283 | C |  |  |  |
|  | 7 | Government Building (USFS, | 50+017 | $53$ |  |  |  |  |  |  |
|  | 9 | Government Building (USFS, | 50+039 | 158 |  |  |  |  |  |  |
|  | 11 | Government Building (USFS, | 50+079 | 53 |  |  |  |  |  |  |


| Sheet ID | $\begin{gathered} \text { Driveway } \\ \text { ID } \\ \hline \end{gathered}$ | Access / Property Use | Metric <br> Station | Spacing <br> Between <br> Approaches (feet) | Compliance | Average <br> Spacing/ <br> Segment <br> (feet) | Compliance |  | Average Spacing/ <br> Block <br> (feet) | $\begin{gathered} \text { \# Driveways/ } \\ \text { Block } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 13 | Desert Trading Post | 50+098 | 106 |  |  |  |  |  |  |
|  | 15 | 205 Highway 20 (white res.) | $50+134$ | 106 |  |  |  |  |  |  |
|  | 17 | 205 Highway 20 (white res.) | $50+164$ | 53 |  |  |  |  |  |  |
|  | 19 | Hines Auto Motors | $50+174$ | 53 |  |  |  |  |  |  |
|  | 20 | Hines Auto Motors | $50+192$ | 53 |  |  |  |  |  |  |
|  |  | Hanley Boulevard East | 50+209 | 106 |  |  |  | 256 | 106 | 1 |
|  | 21 | Neil's Tavern | $50+250$ | 158 |  |  |  |  |  |  |
|  |  | Ogden Avenue East | $50+287$ | 53 |  |  |  | 279 | 264 | 1 |
|  | 23 | Sinclair | $50+311$ | 211 | C |  |  |  |  |  |
|  |  | South Circle Drive East | 50+372. | 528 | $\mathrm{A}^{\mathrm{DD}}, \mathrm{B}^{\text {DD }}, \mathrm{C}$ |  |  | 541 | 554 | 0 |
| 3 |  | Barnes Avenue East | $50+537$ | 581 | $\mathrm{A}^{\mathrm{D}}, \mathrm{B}^{\text {DD }}, \mathrm{C}$ |  |  | 535 | 370 | 0 |
|  |  | North Circle Drive East | $50+700$ | 158 |  |  |  | 463 | 352 | 1 |
|  | 25 | 213 Highway 20 (green res.) | $50+750$ | $264$ | C |  |  |  |  |  |
|  |  | Pettibonne Avenue East | $50+841$ | $634$ | $\mathrm{B}^{\mathrm{DD}}, \mathrm{C}$ |  |  |  | 521 | 8 |
|  | 32 | Valley Golf Club | $51+033$ | 1795 | $\mathrm{A}, \mathrm{A}^{\mathrm{DD}}, \mathrm{B}, \mathrm{B}^{\mathrm{DD}}$ |  |  |  |  |  |
|  | 40 | 505 Highway 20 (green res.) | $51+571$ | 53 |  |  |  |  |  |  |
|  | 42 | 509 Highway 20 (blue/green res.) | $51+588$ | 264 | C |  |  |  |  |  |
|  | 44 | Grandma's | $51+668$ | 317 | C |  |  |  |  |  |
|  | 46 | CFN | $51+764$ | 211 | C |  |  |  |  |  |
|  | 48 | CFN | $51+823$ | 422 | $\mathrm{A}^{\mathrm{DD}}, \mathrm{B}^{\mathrm{DD}}, \mathrm{C}$ |  |  |  |  |  |
|  | 50 | Payless | $51+955$ | 475 | $\mathrm{A}^{\mathrm{DD}}, \mathrm{B}^{\mathrm{DD}}, \mathrm{C}$ |  |  |  |  |  |
|  | 54 | Erickson's Sentry Market | $52+092$ |  |  |  |  |  |  |  |
|  | Segment 3 | OUTH BURNS NW (Speed 35MPII) |  | $\underline{1}$ | 180.80 | + |  |  |  |  |
| 5 |  | Hilander Avenue (High School) West | $52+185$ |  | $\mathrm{A}^{\text {DD }}, \mathrm{B}^{\text {DD }}, \mathrm{C}$ | 227 | C | 1887 | 206 | 8 |
|  | 59 | High School | $52+347$ | 475 | $\mathrm{A}^{\mathrm{DD}}, \mathrm{B}^{\mathrm{DD}}, \mathrm{C}$ | - |  |  |  |  |
|  | 60 | Vacant lot | $52+476$ | 370 | $\mathrm{A}^{\mathrm{DD}}, \mathrm{B}^{\text {DD }}, \mathrm{C}$ | $\bullet$ |  |  |  |  |
|  | 64 | Hereford Restaurant | $52+593$ | 106 |  | - |  |  |  |  |
|  | 66 | House | 52+622 | 53 |  | - |  |  |  |  |
|  | 67 | Bennett Used Cars | 52+646 | 106 |  | - |  |  |  |  |
|  | 69 | Bennett Muffler | 52+675 | 53 |  | - |  |  |  |  |
|  | 71 | Dairy Queen | 52+699 | 106 |  | - |  |  |  |  |
|  | 72 | Dairy Queen | $52+716$ | 106 |  | - |  |  |  |  |


| Sheet <br> ID | Driveway ID | Access / <br> Property Use | Metric <br> Station | Spacing <br> Between <br> Approaches <br> (feet) | Compliance | Average Spacing/ <br> Segment (feet) | Compliance | Block <br> Length (feet) | Average Spacing/ <br> Block <br> (feet) | \# Driveways/ Block |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Hines Boulevard West | 52+757 | 158 |  | - |  | 925 | 334 | 4 |
|  | 76 | Burns Propane et al. | 52+809 | 211 | C | - |  |  |  |  |
|  | 78 | Harney Electric Co-Op | $52+871$ | 158 |  | - |  |  |  |  |
|  | 81 | Highland Rock \& Gem | 52+920 | 106 |  | - |  |  |  |  |
|  | 82 | Bill Blake Gems | 52+954. | 317 |  | - |  |  |  |  |
| 6 |  | Taylor Street West | 53+039 | 1056 | $\mathrm{A}, \mathrm{A}^{\mathrm{DD}}, \mathrm{B}, \mathrm{B}^{\mathrm{DD}}, \mathrm{C}$ | - |  |  | 282 | 6 |
|  | 94 | Tony's Repair | $53+361$ | 106 |  | - |  |  |  |  |
|  | 95 | Tony's Repair | $53+402$ | 158 |  | - |  |  |  |  |
|  | 96 | Jiffy Mart | $53+440$ | 106 |  | - |  |  |  |  |
|  | 97 | Jiffy Mart | $53+469$ | 53 |  | $\bullet$ |  |  |  |  |
|  | 98 | Wagner's Furniture | 53+494 | 211 | C | - |  |  |  |  |
|  | 102 | Oregon Dept of HR | $53+557$ |  |  |  |  |  |  |  |
| 484 | Segment 3 | OUTH BURNS SE (Speed | yeras | 21-15 | $\underline{-1}$ | - | 3 | $\underline{2}$ | - | durnum |
| 5 | 55 | Ranch \& Home | $52+185$ | 317 | C | 123 |  |  |  |  |
|  | 56 | Subway Sandwich Shop | $52+275$ | 106 |  | - |  |  |  |  |
|  | 57 | Subway Sandwich Shop | $52+304$ | 53 |  | - |  |  |  |  |
|  | 58 | House | $52+322$ | 581 | $\mathrm{A}^{\mathrm{DD}}, \mathrm{B}^{\mathrm{DD}}, \mathrm{C}$ | - |  |  |  |  |
|  | 61 | Royal Inn | $52+506$ | 158 |  | - |  |  |  |  |
|  | 62 | Royal Inn | $52+541$ | 106 |  | - |  |  |  |  |
|  | 63 | Fenced lot | $52+580$ | 106 |  | - |  |  |  |  |
|  | 65 | Jerry's Restaurant | 52+619 | 106 |  | - |  |  |  |  |
|  | 68 | Jerry's Restaurant | 52+649 | 106 |  | - |  |  |  |  |
|  |  | Pierce Street East | 52+668 | 53 |  | - |  | 591 | 98 | 5 |
|  | 70 | Town \& Country Insurance | 52+693 | 106 |  | - |  |  |  |  |
|  | 73 | Ponderosa Village Mall | 52+719 | 106 |  | - |  |  |  |  |
|  | 74 | Ponderosa Village Mall | 52+749 | 106 |  | - |  |  |  |  |
|  | 75 | Vacant lot | $52+790$ | 106 |  | - |  |  |  |  |
|  | 77 | Vacant lot | $52+819$ | 106 |  | - |  |  |  |  |
|  |  | Filmore Street East | $52+848$ | 106 |  | - |  | 289 | 92 | 2 |
|  | 79 | Leathers Oil | 52+879 | 106 |  | - |  |  |  |  |
|  | 80 | Leathers Oil | $52+910$ | 53 |  | - |  |  |  |  |
|  |  | McGowan Avenue South | 52+936 | 106 |  | - |  | 384 | 79 | 4 |
|  | 83 | Vacant lot | 52+956 | 53 |  | - |  |  |  |  |
|  | 84 | Vacant lot | 52+976 | 53 |  | - |  |  |  |  |




| Sheet ID | Driveway ID | Access / <br> Property Use | Metric <br> Station | Spacing <br> Between Approaches (feet) | Compliance | Average <br> Spacing/ <br> Segment <br> (feet) | Compliance | Block <br> Length (feet) | Average Spacing/ <br> Block <br> (feet) | \# Driveways/ Block Block |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 105 | Harney County FCU | 53+676 | 106 |  | - |  |  |  |  |
|  | 106 | Harney County FCU | 53+721 | 158 |  | - |  |  |  |  |
| 7 |  | Grand Street South | $53+764$ | 106 |  | - |  | 292 | 92 | 2 |
|  | 107 | Windmill Pizza | 53+792 | 106 |  | - |  |  |  |  |
|  | 109 | ACW Rental | $53+822$ | 106 |  | - |  |  |  |  |
|  |  | Fairview Avenue South | $53+853$ | 53 |  | - |  | 262 | 63 | 3 |
|  | 111 | Best Western | $53+880$ | 106 |  | - |  |  |  |  |
|  | 112 | Pine Room Lounge | $53+900$ | 0 |  | - |  |  |  |  |
|  | 114 | Pine Room Lounge | 53+913 | 106 |  | - |  |  |  |  |
|  |  | Egan Avenue South | 53+933 | 53 |  | - |  | 289 | 106 | 2 |
|  | 115 | Lariat Lanes | 53+962 | 158 |  | - |  |  |  |  |
|  | 117 | A-1 Machine | 54+000 | 53 |  | - |  |  |  |  |
|  |  | Diamond Avenue South | 54+021 | 158 |  | - |  | 279 | 106 | 1 |
|  | 119 | Unmarked building | 54+064 | 106 |  | - |  |  |  |  |
|  |  | Court Avenue South | 54+106 | 53 |  | - |  | 282 | 106 | 3 |
|  | 121 | NAPA Auto Parts | $54+121$ | 106 |  | - |  |  |  |  |
|  | 132 | NAPA Auto Parts | 54+144 | 106 |  | - |  |  |  |  |
|  | 125 | NAPA Auto Parts | $54+173$ | 53 |  | - |  |  |  |  |
|  |  | Buena Vista Avenue South | 54+192 | 211 | C | - |  | 282 | 123 | 1 |
|  | 127 | Vacant lot | 54+259 | 53 |  | - |  |  |  |  |
|  |  | Alvord Avenue South | $54+278$ | 106 |  | $\bullet$ |  | 279 | 79 | 5 |
|  | 128 | Motel (closed) | 54+304 | 53 |  | - |  |  |  |  |
|  | 130 | Conoco Car Care | $54+320$ | 53 |  | - |  |  |  |  |
|  | 131 | Conoco Car Care | $54+345$ |  |  |  |  |  |  |  |
|  | 134 | Tuning's Siudio | 0+124 | 53 |  | 150 |  |  |  |  |
|  | 136 | A-1 Used Cars | 0+138 | 158 |  | - |  |  |  |  |
|  |  | Madison Street East | $0+185$ | 53 |  | - |  | 279 | 106 | 2 |
|  | 137 | Chevron Gas Station | 0+202 | 53 |  | - |  |  |  |  |
|  | 139 | Chevron Gas Station | 0+221 | 158 |  | - |  |  |  |  |
|  |  | Jefferson Street East | 0+270 | 158 |  | - |  | 279 | 194 | 1 |
|  |  | Klamath 1st Federal | 0+324 | 106 |  | - |  |  |  |  |
| 8 |  | Adams Street East | 0+356 | 317 | C | - |  | 282 | 290 | 0 |
|  |  | Washington Street East | 0+441 | 264 | C | - |  | 279 | 264 | 0 |
|  |  | "A" Street East | $0+526$ | 264 | C | - |  | 279 | 185 | 0 |
|  |  | "B" Street East | 0+612 | 106 |  | - |  | 282 | 123 | 1 |


\# Does not meet spacing standards for statewide Highways for 'Other', 'UBA', or 'STA'
\# A
$\# A^{D D}$
Meets access spacing standards for statewide Highways for 'Other'
\# B Meets access spacing standards for statewide Highways for 'UBA'.
\# $\mathrm{B}^{\mathrm{DD}}$
\# C
Meets access driveway deviation spacing standards for statewide Highways for 'UBA'. Meets access spacing standards for statewide Highways for 'STA'.

TABlé C-2
US 78 THROUGH HINES AND BURNS COMPARISON TO 1999 OHP ACCESS SPACING STANDARDS FOR REGIONAL HIGHWAY STANDARDS



Footnote:
\#
\# A
$\# A^{D D}$
\# B
\# $B^{D D}$
\# C

Does not meet spacing standards for statewide Highways for 'Other', 'UBA', or 'STA'.
Meets access spacing standards for statewide Highways for 'Other'.
Meets access driveway deviation spacing standards for statewide Highways for 'Other'.
Meets access spacing standards for statewide Highways for 'UBA'.
Meets access driveway deviation spacing standards for statewide Highways for 'UBA'.
Meets access spacing standards for statewide Highways for 'STA'.

## APPENDIX D

## BURNS AND HINES: ACCESS INVENTORY SHEET A [INDEX] SHEETS 1-11
















| )AVID EVANS AND ASSOCIATES, INC. 828 S.W. CORBETT AVENUE ORTLAND, OR. 9720I-4830 (503) 223-6663 | 00 |  | LEGEND: <br> soo LOT IDENTIFICATION <br> $\longrightarrow$ DRIVEWAY <br> (0) DRIVEWAY IDENTIFICATION <br> $49 \cdot 200$ STATION (METRIC) POTENTIAL STA |  |  | SHEET 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Access Inventory |  |  |
|  |  |  | STATION: $0+400-0+800$ |  |  |
|  |  |  | Adams Street West - Foley Drive |  |  |
|  |  |  | US 20395 (Broadway Ave, Burns) |  |  |
|  |  |  | BURNS AND HINES TSP |  |  |












[^0]:    ${ }^{1}$ As defined in Oregon Administrative Rules (OAR) Division 51, Public approach refers to a public roadway connection serving multiple properties, which is owned and operated by a public entity, and provides connectivity to the local road system (OAR 734-051-0040(40)); Private approach refers to a private roadway or driveway connection serving one or more properties that does not provide connectivity to the local road system (OAR 734-051-0040(36)).

[^1]:    ${ }^{2}$ Includes both major deviations, which depart from the purpose and intent of the State's access management standards or which potentially have a significant negative impact on safety or traffic operations), and minor deviations, where the proposed approach placement, or access management technique substantially complies with the purpose and intent of the access management and design standards. Major deviations fall outside the minor deviation limits. (OAR 734-51-040(26) and (27))

[^2]:    ${ }^{3}$ Transportation Report, US Highway 20 Traffic Analysis Burns/Hines Urban Area Section, David Evans and Associates, Inc. (DEA), August 27, 1996.
    ${ }^{4}$ As identified on pages B-2 and B-3 of the 1991 OHP, these include: projected future traffic volumes; amounts of development authorized by comprehensive plans; existing and proposed roadside development patterns; regional and local comprehensive plans and TSPs; the potential for increasing the use of local roads to provide property access and local circulation; topography, drainage or other land characteristics; existing access agreements between the State and local jurisdictions; and other operational aspects of access.

[^3]:    Note: UBA- Urban Business Area, STA- Special Transportation Area

    * This is not a standard, and is allowed if certain criteria are met. Minor deviation tables are "Limits" used as the lowest point a minor deviation can go if all criteria are met. These can not be used as standards.

