
Highway Location, Classification, and Function

Eastern Region

US 2 Route Development Plan

Lincoln County Line to I-90



Route Location

This Route Development Plan addresses the section of US 2 extending from Lincoln County Line (MP 266.86) to Interstate 90 (MP 283.01). The US 2 corridor serves the west plains area of Spokane County. This facility is the primary transportation link to Fairchild Air Force Base, the City of Airway Heights, and other rural cities in Lincoln County. In cooperation with Spokane County and City of Spokane, Airway Heights is moving toward annexation of a portion of the Spokane County West Plains/Thorpe UGA/JPA east of Harvard Rd. The City of Spokane is preparing to annex west to the proposed Airway Heights city limits. The multi-jurisdictional nature of the area requires close collaboration with stakeholders as improvements to US 2 are considered. (See Appendix A)

Route Continuity

The American Association of State Highway and Transportation Officials (AASHTO) publication, [A Policy on Geometric Design of Highways and Streets, 2001](#), defines route continuity as the provision of a directional path along and throughout the length of a designated route. Accordingly, route continuity is evaluated in terms of operational uniformity, appropriate lane balance, and maintenance of a basic number of lanes.

The goal of route continuity is to ease the driving task. This is accomplished through delineation of the through route and by reducing the need to change lanes and search for directional signing. Ideally, an unfamiliar through driver would not have to change lanes in order to continue on a through route. Although the existing configuration of US 2 within the limits of this RDP satisfies the goal of route continuity, the long-term corridor concepts presented in this RDP recognize that US 2 route continuity can be improved. This would be specifically addressed in the transition from the Logical Section 1, two-lane facility, to the Section 2, five-lane at Fairchild Air Force Base.

Route Classification and Function

The primary purpose of the US 2 corridor is to facilitate the transportation of people. The segment of US 2 addressed in this plan serves as a major commuter route between the

metropolitan City of Spokane and the City of Airway Heights and Fairchild Air Force Base. It is also a significant freight route for several outlying smaller cities.

Highway of Statewide Significance (HSS)

Highways of Statewide Significance include highways, arterials, and ferry routes that connect major communities across the state and support the state's economy. US 2 is classified as a Highway of Statewide Significance (HSS).

National Highway System (NHS)

The National Highway System is an interconnected system of principal arterial routes that serve interstate and interregional travel. In addition, these routes meet national defense requirements. US 2 is classified as a National Highway System (NHS) route.

Design Level Classification

The WSDOT Design Manual provides guidance regarding design standards and processes to be used during project development. The manual recognizes three levels of design for highway projects: Basic, Modified and Full Design Levels. The Design Manual utilizes Design Matrices to identify the design level(s) for a specific project. These matrices focus on primary design elements such as, roadway alignments, intersection geometrics, sight distance, access, and geometric elements for roadway and bridge configurations. There are five matrices, each distinguished by route type:

Design Matrix 1 - Interstate Routes (Main Line)

Design Matrix 2 - Interstate Interchange Areas

Design Matrix 3 – Mainline NHS Routes

Design Matrix 4 - Interchange Areas, NHS and Non-NHS

Design Matrix 5 – Mainline Non-NHS Routes

US 2, an NHS route, currently falls under the direction of ***Design Matrix 3***, Mainline NHS Routes (Appendix C).

Functional Classification

The state functional classification is the grouping of highways, roads, and streets that serve similar functions into distinct systems or classes within the total existing or future highway network. The objective of functional classification is to define the appropriate role, mobility vs. access, of various highways in providing service and influencing development. Generally, the higher functional classification routes provide mobility, accommodate higher travel speed, serve long distance travel, and place less emphasis on local access. The lower functional classification routes focus on providing access to the land. The functional classification utilized on highways, from highest to lowest is Interstate, principal arterial, minor arterial, and collector. Functional class is important in determining appropriate design levels and priority in the programming process.

The WSDOT Functional Classification of US 2 is **Principal Arterial** from MP 266.86 to MP 281.50, and **Freeway-Expressway** from MP 281.50 to MP 283.01. US 2 is further distinguished by the following sub classifications:

- Lincoln County (MP 266.86) to Hayford Rd. (MP 279.23) - **Rural Principal Arterial**
- Hayford Road (MP 279.23) to I-90 (MP 283.01) - **Urban Principal Arterial**.

Freight and Goods Transportation System

The Transportation Commission, in cooperation with Cities, Counties, and regional transportation planning organizations, designated the Freight and Goods Transportation System (FGTS). The FGTS is an inventory of the tonnages of freight moving along the highways, streets, and roads of Washington each year. Further analysis of a roadway is triggered either by changes in the classification of a facility or by specific differences in classification of intersecting routes.

The FGTS classification is a dynamic system requiring periodic re-evaluation of a roadway's classification. The system is affected by changes in the economy, international trade and the transportation industry such as changes in travel patterns,

cargoes, and tonnages. Routes are classified by total tonnage of freight carried each year with the designations detailed in the table below:

FGTS Classification System

FGTS Classification	Annual Gross Tonnage	Approximate Number of Large Trucks per Day
T-1	Over 10,000,000	Over 800
T-2	4,000,000 to 10,000,000	320 to 800
T-3	300,000 to 4,000,000	24 to 320
T-4	100,000 to 300,000	8 to 24
T-5*	*Over 20,000 in 60 days	

**The T-5 classification is used in those agricultural areas where harvest occurs over a relatively short period and represents an equivalent to 100,000 tons per year, but compressed into a two-month harvest season.*

The annual FGTS tonnage class for US 2, Lincoln County Line to Fairchild AFB, MP 266.86 to MP 275.33, is **T-3**; the FGTS for Fairchild to I-90 MP 275.33 to MP 283.01 is **T-2**. The FGTS tonnage classifications for US 2 are shown below:

FGTS Annual Tonnage

City Street or County Road	FGTS Class	Tons per Year
Lincoln County Line to Fairchild AFB	T3	2,999,000
Fairchild AFB to I-90	T2	5,781,000

Source: 2005 FGTS Update, Appendix H;

Major freight system users in the corridor include Spokane International Airport, Fairchild AFB, Triumph Composite Systems, Pearson Packaging, Air National Guard, Regional Disposal Co., Garco Steel, Northwest Steel Fabricators, Wal-Mart, Shamrock-Murphy Bros. Paving, US Postal Service Processing and Distribution Center, and others.

Access Management and Control Classification

Highway Access Management – The Access Control Classification System and Standards are defined by Washington Administrative Code (WAC) Chapter 468.52. Five classifications have been established for access management on state highways.

A description of these classifications is in the table below:

Classification Description Table

Highway Classification & Definition	Typical Speed Limits	Minimum Access Spacing	Access Limitations
Class 1 Mobility is primary function.	50 mph and higher	1320 ft.	1 access connection only to contiguous parcels under the same ownership. Private direct access not allowed unless no other reasonable access exists. (Must use county road system if possible)*
Class 2 Mobility favored over access.	35-50 mph (urban) 45-55 mph (rural)	660 ft.	1 access connection only to contiguous parcels under the same ownership unless frontage >1320'. Private direct access is not allowed unless no other reasonable access exists. (Must use county road system if possible)*
Class 3 Balance between mobility and access in areas with less than maximum build-out.	30-40 mph (urban) 45-55 mph (rural)	330 ft.	1 access connection only to contiguous parcels under the same ownership. Joint access connection for subdivisions preferred, but private access allowed with acceptable justification.
Class 4 Balance between mobility and access in areas nearing maximum build-out.	30-35 mph (urban) 35-45 mph (rural)	250 ft.	1 access connection only to contiguous parcels under the same ownership except with acceptable justification.
Class 5 Access needs may have priority over mobility needs.	25-35 mph	125 ft.	More than 1 access connection per ownership allowed with acceptable justification.

Source: WSDOT Design Manual, Chapter 1435 (December 2003)

***Access connection shall continue until such time that other reasonable access to the general street system becomes available and is permitted**

Access control is established to preserve the safety and efficiency of specific highways and to preserve the public investment. Control is incorporated by acquiring rights of access from abutting property owners, typically by deed, and by selectively limiting approaches to the facility. Highway facilities with established access control are termed either limited access or managed access-controlled highways.

Limited Access facilities have acquired access rights from abutting property owners and are further distinguished as having full, partial or modified access control. A synopsis of access control criteria follows.

Full Access Control Criteria

Fully controlled access highways provide almost complete freedom from disruption by permitting access connections only through interchanges at selected public roads, rest areas, viewpoints, or weighing stations, and by prohibiting all crossings and private connections at grade. *I-90 is an example of a fully controlled access highway.*

Partial Access Control Criteria

Partial access control may be established when warranted on highways other than Interstate. Partial control provides a considerable degree of protection from traffic interference and protects the highway from future strip-type development. Access control on partially controlled highways is exercised to the degree that, in addition to connections with selected public roads, some crossings and private driveway connections may be permitted at grade. Commercial approaches are not allowed within the limits of partial access control. *US 2 from Day Mt. Spokane to Chattaroy (MP 298.48 to MP 306.11) is an example of a partially controlled access highway.*

Modified Access Control Criteria

Modified access control is intended to prevent further deterioration in the safety and operational characteristics of existing highways due to traffic interference associated with strip development by limiting the number and location of access points to the highway. In general, modified access control is applied where some degree of control is desired, but existing and potential commercial development precludes the implementation of partial or full control. *US 2 from Nevada Street to Day-Mt. Spokane (MP 294.10 to MP 298.487) is an example of a highway with modified access control.*

Managed access control regulates access where property rights have not been acquired. Managed access permits are issued either by a local authority (city or town) or by WSDOT.

The access classifications for this segment of US 2 are detailed in the following table:

US 2 Access Management Control & Classification Table

Beg. MP	End MP	Section Description	Existing Classification	Posted Speed Limit
MP 266.86	MP 277.22	Lincoln County Line to Airway Heights	Access Managed – Class 2	60 MPH
MP 277.22	MP 278.21	City of Airway Heights	Access Managed – Class 4	35 MPH
MP 278.21	MP 279.23	City of Airway Heights	Access Managed – Class 3	45 MPH
MP 279.23	MP 281.62	Airway Heights to Russell Rd.	Access Managed – Class 3	55 MPH
MP 281.62	MP 283.22	Russell Rd. to Spokane West Corp. Limits	Full	55 MPH

Source: *Eastern Region Access Management Spreadsheet*

As part of an effective access management strategy for US 2 east of Hayford Road, modified access control should be established in conjunction with developments or other roadway projects. This will control the number and locations of private access points to US 2 for highway capacity and safety.

Route Classification Plan

The WSDOT Roadside Classification Plan, 1996, (RCP) has been developed to coordinate state highway roadside management. Roadside management encompasses planning, design, construction, and maintenance of the roadside environment. WSDOT policy is to utilize roadside treatments for the protection and restoration of designated roadside character. Roadside character is classified from the roadway user’s visual perspective of the landscape. Roadside character is either Natural, which includes Forest and Open classifications, or Built, which includes Rural, Semi-urban, or Urban classifications. Built refers to landscape in which human elements and structures are notable or predominant in the overall context. The terrain of the non-urban section of US 2 MP 266.86 to 274.20 is identified as ‘Rolling’, the terrain from MP 274.20 to 281.22 is ‘Level’, and MP 281.22 to 283.01 is ‘Rolling’.

The Roadside Character Classification for US 2 is illustrated in the table below.

Begin Mile Post	End Mile Post	Character Classification
266.86	275.19	Rural
275.19	277.09	Semi-Urban
277.09	277.79	Urban
277.79	278.19	Semi-Urban
278.19	283.01	Rural

Source: WSDOT Roadside Classification Plan, 1996

Public Transportation

Mass Transit

Spokane Transit Authority (STA), the primary bus service in Spokane County, currently provides service along US 2 from Sunset Rd to Fairchild Air Force Base. The route serves Airway Heights locations, Northern Quest Casino, West Spokane Industrial Park, and Spokane International Airport. The Kalispel Tribe operates the KALTRAN Tribal Transit System that connects the Kalispel Reservation to STA in downtown Spokane, and provides a connection to the Northern Quest Casino. STA also provides paratransit service for those who qualify under the Americans with Disabilities Act (ADA). Passenger rail service does not currently operate in the corridor.

Pedestrian and Bicycle Facilities

US 2 is not generally used by bicycles but it is a designated route in the SRTC Regional Bike Plan and the Airway Heights' Proposed Bike Routes & Road Inventory. Shoulders are 8'-10' wide and allow for bike travel. Pedestrian movements are expanding as development extends to the east of the City of Airway Heights. There have been several traffic/pedestrian crossing incidents over the years and the community has voiced concerns about pedestrian collisions. Pedestrian circulation along US 2 needs to be provided for in developments both east and west of the city. A separated pedestrian/bicycle pathway should be considered in development proposals.

School Bus Routes

Four School districts are within, or in proximity of, the US 2 corridor study; Cheney School District, Reardan/Edwall School District, Medical Lake School District, and Great

Northern School District. The Cheney, Medical Lake and Reardan/Edwall schools have bus routes that use or intersect with US 2.

Current Land Use Characteristics and Zoning

Land use patterns are what determine the character of the community and dictate the types and locations for future development, which in turn dictate traffic patterns. Land use designations for the adjacent areas along US 2 in Spokane County (MP 266.86 to MP 283.01) are shown on the City of Spokane Land Use Map and Spokane County Comprehensive Plan Land Use map in **Appendix A**. The predominant land use along US 2 in Logical Section 1 is Small Tract Agricultural and Rural Traditional. Land use in Logical Section 2 outside of the incorporated areas of Fairchild Air Force Base (FAFB) and Airway Heights is Rural Traditional and Light Industrial.

Spokane International Airport and Fairchild Air Force Base are both in the proximity of the US 2 corridor. SIA has plans to invest \$70 million in improvements to its runway and aprons areas over the next several years. Proposed land use projections show a healthy growth in commercial projects north of the airport in the vicinity of US 2.

The City of Airway Heights Comp Plan addresses Fairchild Air Force Base, which is located southwest of the City, greatly influencing the community's overall land use pattern. FAFB's flight operations over Airway Heights create noise, and according to Air Force studies, a potential crash hazard. To help ensure consistency with flight operations, the city uses the Air Installation Compatible Use Zone (AICUZ) during project reviews. The City has adopted the Airport Overlay Zone (AOZ) that regulates land uses in parts of the City most impacted by the noise and collision potential (see **Appendix B**). The AICUZ implements a program developed by the Department of Defense requiring installations, like FAFB, to assess impacts of air defense installations on surrounding communities. The purpose of this program is to promote compatible land development in areas subject to aircraft noise and collision potential. The intent of the FAFB AICUZ program is to provide recommendations that blend the national defense needs of the U.S. Air Force with the economic, safety and quality of life needs of the surrounding communities of Medical Lake, Spokane County, Spokane and Airway Heights. There

are three main constraints airfields bring to the surrounding community: building height limitations, noise levels, and collision potential zones. For additional information on the City's land use see:

http://www.cawh.org/documents/Comp_Plan_2006/Chapter04%20Land%20Use.pdf

Social Demographics

City of Airway Heights - Total Population: 4,526

<u>Total Minorities by Race</u>	<u>4,526</u>	<u>Percentage</u>
White	3,676	81.2%
Black/African American	470	10.4%
American Indian	123	2.7%
Asian	82	1.8%
Other/Two or More Races	175	3.9%
<u>Total in Poverty Universe*</u>	<u>2,847</u>	<u>Percentage</u>
In Married Families	1,537	54.0%
Other Families	531	18.7%
Married-Couple Households	471	16.5%
<u>Total Disabilities</u>	<u>2,127</u>	<u>Percentage</u>
Sensory Disability	85	4.0%
Physical Disability	475	19.6%
Mental Disability	417	19.6%
Self-Care Disability	273	12.8%
Go-outside-home Disability	382	18.0%
Employment Disability	495	23.3%
<u>Language (Pop. 5 yr. & Over)</u>	<u>4,290</u>	<u>Percentage</u>
English Only	3,837	89.4%
Spanish	304	7.1%
Indo-European	59	1.4%
Asian/Pacific Island	85	2.0%
Other Languages	5	0.1%
Pop. That Speak English Well	4,229	98.6%

** Poverty universe includes all people EXCEPT (1) those in institutions, military group quarters, and college dormitories and (2) unrelated // individuals under 15 years old (children who are not related family members).*

Prepared by Washington State Office of Financial Management, Source: Census 2000 Summary File 3; prepared by the U.S.Census Bureau, 2002 (www.census.gov)