

Socioeconomic and Environmental Justice Discipline Report

NORTH SPOKANE CORRIDOR SPOKANE RIVER TO FREYA STREET REDESIGN

Spokane County, WA

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Executive Summary

The North Spokane Corridor (NSC) is a new limited access highway in the eastern part of the City of Spokane and adjacent Spokane County. Portions of the NSC have already been constructed north of Francis Avenue. The Washington State Department of Transportation (WSDOT) is proposing to build a connecting segment of the NSC, the Francis Avenue/Freya Street Interchange south to the Spokane River.

The design for this 3-mile segment, between the Spokane River and Francis Avenue, is being reconsidered due to construction feasibility issues. A Final Supplemental Environmental Impact Statement (FSEIS) including this segment was signed by FHWA in 2000. Some right-of-way has been purchased within this segment, and the connecting segment to the north has been constructed. Proposed design changes will be reviewed by FHWA to determine if they fall within the scope of the FSEIS. This discipline report describes the social, economic, and environmental justice aspects of the proposed design changes and compares these to those of the previously reviewed design.

The proposed design changes would result in fewer residential and commercial acquisitions for right-of-way than the FSEIS design. The majority of residential displacement impacts however, would be shifted, so that the majority of acquisitions are in a neighborhood on the east side of the corridor, which would not be directly affected with the FSEIS alignment.

The populations defined in Environmental Justice directives, minority populations and low-income populations, are shown to be present in higher concentrations on the west side of the corridor than on the east side. The same is true for areas of linguistic isolation, people over the age of 65, people reporting disability, and people reporting the lack of access to a vehicle. The Redesign would have less residential relocation impacts on the west side than on the east side of the alignment.

The proposed design changes would not result in significant changes in impacts, benefits, or mitigation as compared to the alignment evaluated in the FSEIS.

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1.0 Introduction

1.1 North Spokane Corridor Project Summary

The project area is located in the northeast quadrant of Spokane County and the City of Spokane (see Vicinity Map, **Figure 1.1**). The proposed action is to improve transportation safety and mobility through the City of Spokane and Spokane County between Interstate 90 (I-90), northeastern Washington, and Canada.

This action will ultimately provide a four- to eight-lane, fully controlled access highway between I-90 on the south terminus, and US 395 at Wandermere on the northern terminus. The length of the North Spokane Corridor (NSC) is approximately 10.4 miles, and includes up to seven interchanges. In addition, approximately 3.5 miles of I-90, centered on the NSC/I-90 interchange connection, will require new construction. The project will provide a transportation facility that will accommodate high volume traffic movements, including high capacity transportation systems, between I-90 and areas north. This will help reduce the congestion and related operational problems on city streets and county roads such as Division Street and Market Street, and will remove regional trips from local streets.

The Washington State Department of Transportation (WSDOT) has been constructing the NSC from Francis Avenue to Wandermere since breaking ground in 2001 (shown in Blue in **Figure 1.1**). A 5.5-mile segment is scheduled to be complete in 2012. To date, over \$600 million has been invested for preliminary engineering, right of way acquisition and construction of the NSC. Real estate purchases and land preparation have been underway within Phase II, south of Spokane River (shown in Green in **Figure 1.1**). The Redesign segment is shown in Red in **Figure 1.1**.



NSC Segments

Blue: Phase I
Francis Ave to Wandermere

Red: Phase I
Spokane River to Francis Ave

Green: Phase II
I-90 to Spokane River



Figure 1.1 North Spokane Corridor Vicinity Map

1.2 *Redesign Rationale*

The NSC design from the Spokane River to the Francis/Freya Interchange as shown in the 2000 FSEIS is being reconsidered. This will be referred to as the Redesign in this document, and is shown in **Figures 1.2** and **1.3**. The Redesign is necessary because:

1. The Burlington Northern Santa Fe (BNSF) railroad bridge over the NSC near Illinois Avenue is not feasible to build.

This bridge is located where the BNSF is in a horizontal curve and crosses the NSC at a large skew angle which would require a 450 foot-long bridge. Since the FSEIS, BNSF has requested that any replacement structures at this site accommodate future expansion by providing capacity for two track lines. The NSC is committed to preserving the freeway median for future expansion, thus precluding placing a bridge pier in the median. Without a center pier, a double track structure at this span is not viable to construct. This requirement jeopardizes the FSEIS concept at this location.

2. Retaining walls in depressed section are not feasible.

For approximately 2.3 miles, between Illinois and Francis Avenues, the NSC and BSNF are directly adjacent to one another. The NSC is below existing ground level for 1.7 miles, or roughly $\frac{3}{4}$ of this segment. It would reach a depth of 50 feet at the Wellesley interchange. Large retaining walls would be required to build this depressed section.

Three types of wall were analyzed for the FSEIS design. Originally, all types were determined feasible to build, but each type came with known difficulties. For cantilever walls, this design is at the height limits of what can be constructed. They will also require large excavations for footings, which would cause long term interruptions of the adjacent homes, businesses and operating railroad. Soldier pile walls would not require the large excavations but do need tiebacks to anchor them in place. These tiebacks would extend under the adjacent properties, including the railroad, which would require underground easements. Easements were not acceptable to BNSF due to possible interruptions to rail service should the tiebacks fail. The secant pile walls would not require large excavations or tiebacks, but were the most expensive of the three options. With the added crash barriers discussed below all three walls became unviable to construct.

3. Safety issues related to railroad have been identified.

Since the FSEIS design, BNSF has expressed safety concerns with their trains running parallel to and above the NSC. If a train derailed it could land on the NSC. For this reason BNSF required that a crash barrier be built on top of the retaining walls. The mass of the barrier required to deflect an errant train when integrated into the above described retaining walls effectively make any of the three retaining wall designs unfeasible.

4. Hazardous materials presence poses a significant risk.

An additional large cost risk in the excavation required for this section is hazardous materials. Roughly 1.5 miles passes through property that was once a large complex of industrial buildings used by the railroad for locomotive and rail car manufacture and repair. It has proven difficult to determine the quantity and location of obstacles such as hazardous materials and buried building foundations and materials. These are risks to the true project costs, and are likely to be an expensive variable in determining the construction costs and schedule.

5. The depressed section is exceedingly expensive.

The construction costs of this section have greatly increased since the concept was developed in 2000. WSDOT has performed the Cost Estimate Valuation Process (CEVP) analysis five times since 2002, the last being occurring 2010. These analyses have shown that the largest single cost increase has been in retaining walls. In 2002 wall costs were estimated at \$110 per square foot and have since increased to \$275 per square foot. The cost estimates for this entire section of the NSC more than doubled to over 700 million dollars. Though this alone does not make the project impossible, when combined with the inability to attain funding necessary to complete this in one phase as described below, it does make it unviable.

6. FSEIS requires funding packages that have proven to be unattainable.

The FSEIS design incorporates a depressed section which requires full build-out with no staging. Therefore, the project has no option for incremental funding and would require upfront funding in its entirety. These types of funding packages have proven to be unattainable-thus stalling the project.

A stalled project has a negative effect on the local community. In this case several neighborhoods have planning efforts underway. Their planning efforts are stifled if a major project impacting them does not continue to make progress.

Smaller packages have been available at both the state and federal level. These packages have allowed the project to steadily progress. The new design takes advantage of this scenario by breaking up this segment in to 6 stageable projects.

1.3 Redesign Description

The Redesign has several components which are described below. **Figures 1.2** and **1.3** show the alignment and profile comparison of the Redesign and the FSEIS design. The surface street work associated with the NSC in this segment is included. Following is a description of the design changes that have been developed to resolve the issues listed in the preceding section.

- Maintaining the BNSF railroad on its existing alignment
This resolves Item 1 by keeping the NSC on the east side of the railroad alignment and alleviating the need for the new crossing over Market/Greene Streets and the NSC. This also reduces impacts to the city street network and private parcels in the Illinois/Market Street intersection vicinity.
- Raising the NSC profile from the Spokane River north past Wellesley Avenue.
This resolves Items 2 and 3 by removing the large excavation component and eliminating the expensive and impossible retaining walls with tie-back anchors underneath the railroad.
- Reconfiguring the Wellesley Avenue Interchange
By decreasing the proposed interchange footprint size, and raising the NSC to pass over Wellesley Avenue instead of beneath it, the proposed design will reduce concerns in Items 2 and 3. The use of roundabouts beneath the NSC reduces the overall footprint while still providing a full-movement interchange. This also helps avoid buried hazardous materials known to exist between Wellesley and Francis Avenues.

Additional modifications, which are necessary to accommodate the proposed Redesign, are listed below:

- Removing the southbound NSC access ramp from eastbound Francis Avenue
In order to maintain a southbound onramp the NSC would need to shift east outside the original project footprint, thus requiring larger impacts to the adjacent businesses. Traffic modeling has shown that removing this single direction access point does not have a detrimental effect on local street or NSC traffic operations.
- Changing Francis Avenue from overcrossing to undercrossing
The FSEIS design provided a grade-separated crossing of the BNSF mainline over a depressed Francis Avenue. The BNSF mainline was located to the east of the NSC alignment and crossed under the NSC north of Francis. The NSC alignment was elevated to cross over the at-grade BNSF mainline. The Redesign would construct the NSC and BNSF mainline and spur at grade, under Francis Avenue. This is accomplished by replacing the existing Francis Avenue structure with a new, larger span structure.

1.4 Purpose of This Report

The last National Environmental Policy Act (NEPA) Environmental Impact Statement document prepared for the NSC was the Final Supplemental Environmental Impact Statement (FSEIS), with the Record of Decision on November 13, 2000. The NEPA FSEIS is being reevaluated to report the changes and impacts associated with the Redesign, and to determine if these are still within the scope of the FSEIS. As part of the NEPA Reevaluation, this report explains and compares the FSEIS and the Redesign in terms of the interrelated social, economic and environmental justice aspects. These topics include: demographic characteristics (economic, racial, language, age), community resources (services, recreation, transportation), businesses and employment. This discipline report also makes the environmental justice determination for the Spokane River to Francis Avenue segment of the NSC.

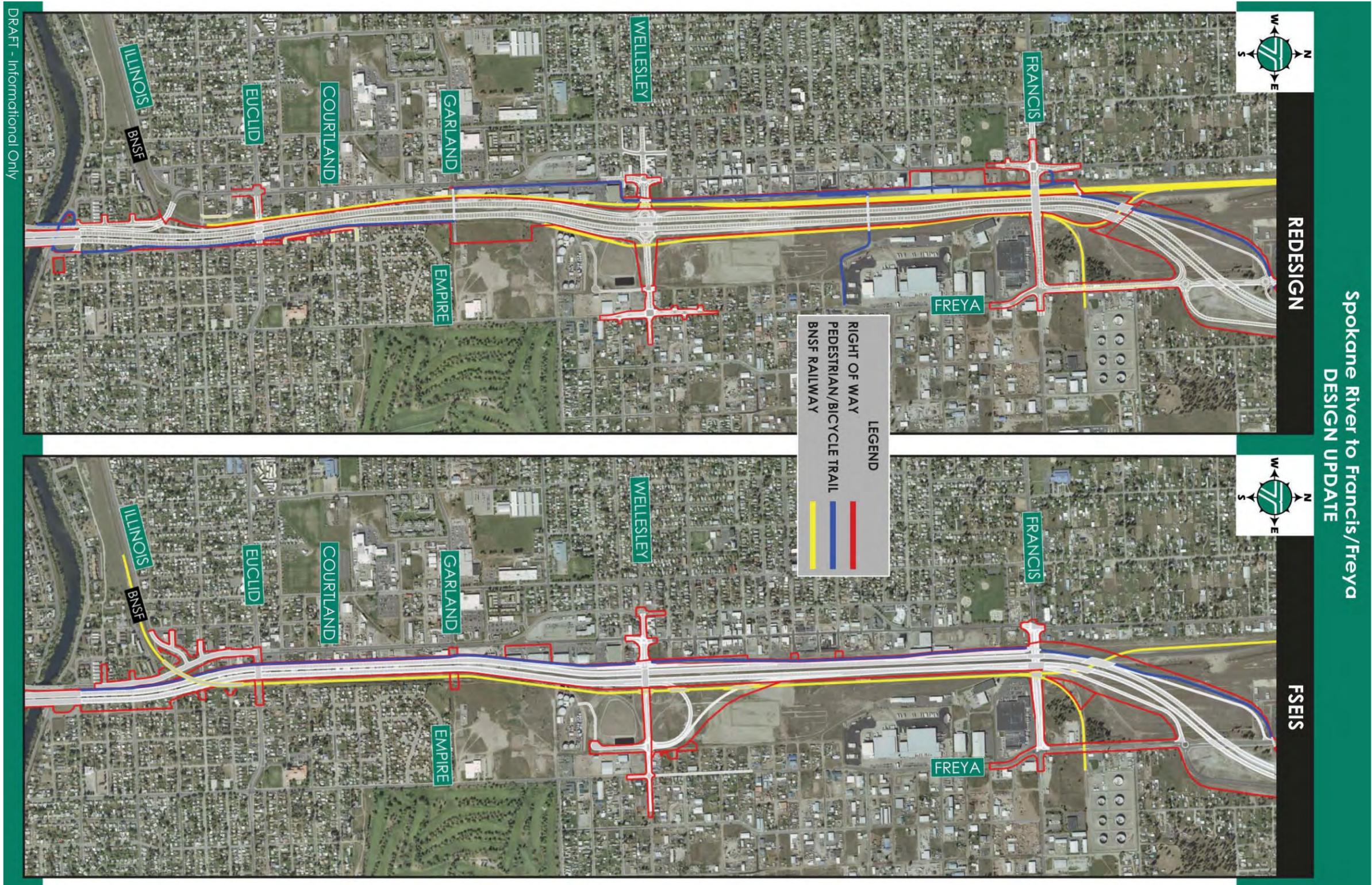


Figure 1.2 NSC Redesign and FSEIS Alignments Compared

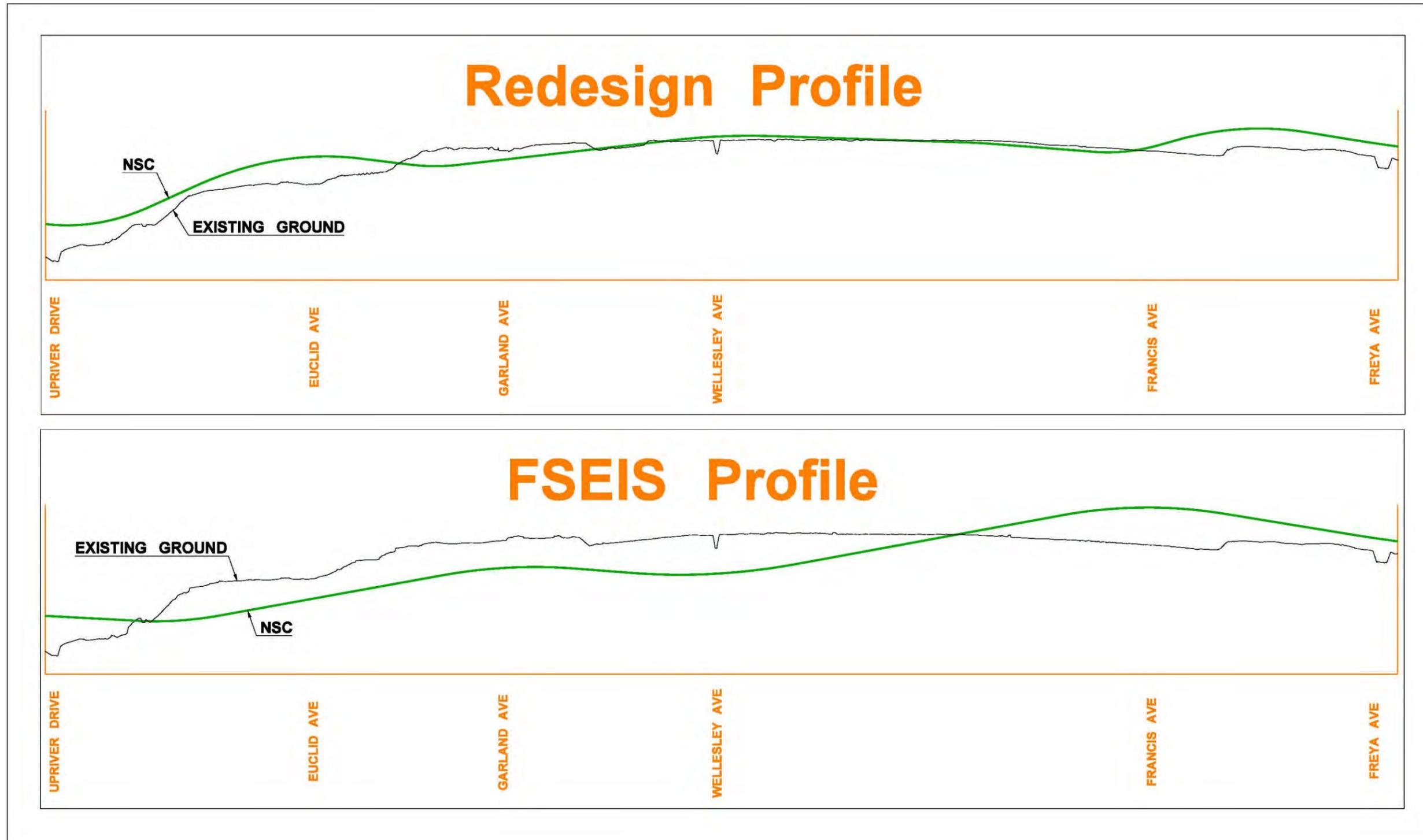


Figure 1.3 NSC Redesign and FSEIS Profiles Compared

1.4.1 Regulatory Context

The National Environmental Policy Act (NEPA) requires the analysis of environmental effects of federal actions, plans, and projects. Environmental elements include human health, economic and social effects. In NEPA documents, impacts are discussed in proportion to their significance. NEPA also requires efforts to involve the public during the decision-making process. Guidance for the discussion of the social and economic impacts of the project in environmental documents is found on pages 20 through 22 of Federal Highway Administration's (FHWA) Technical Advisory, T6640.8A.

In addition to NEPA, the following laws and executive orders establish Environmental Justice as a required evaluation for federal projects:

- Presidential Executive Order 12898 on Federal Actions to Address Environmental Justice in Minority and Low-income Populations – recognized that **minority** and **low-income** populations have historically been unequally burdened with the negative impacts of public works projects, such as pollution, noise, and community disruption, and also have not been proportionately represented in public involvement and decision-making. This order requires WSDOT to:
 - Avoid, minimize or mitigate disproportionately high and adverse effects on minority populations and low-income populations.
 - Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
 - Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and/or low-income populations.
- Presidential Executive Order 13166 on Improving Access to Services for Persons with Limited English Proficiency (LEP) – requires federal agencies to identify needs for language translation, and assist people who do not speak English as their primary language and have limited ability to read, write, speak or understand English.
- Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1987 prohibits discrimination on the grounds of race, color, national origin, age, or disability.
- The Americans with Disabilities Act of 1990 and The Age Discrimination Act of 1975 -- direct WSDOT to ensure that people with disabilities and people 65 years of age or older have fair and equal access to decision-making processes and to the benefits of publicly-funded projects.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as Amended – ensures that owners of property acquired and people displaced by federally funded projects are treated fairly and appropriately compensated.

Minority: A minority is a person who identifies his- or herself as Black, Hispanic, Asian/Pacific Islander, or American Indian/Alaska Native.

Low-income: A low-income is a person whose household income falls at or below the federal poverty guidelines as defined by the US Department of Health and Human Services.

1.5 Study Method

1.5.1 Defined Study Area

The Study Area limits for this report are defined as ½-mile from the NSC centerline of the segment affected by the Redesign. The exception is the southern boundary where the Spokane River forms a geographic barrier less than ¼-mile south of the project terminus. This Study Area is large enough to cover the limit of potential impacts of the alignment shift and other associated changes included in the Redesign. **Figure 1.4** shows a map of the Study Area.

1.5.2 Data Collection

Information about the community within the Study Area was gathered by using:

- Multiple visits to the Study Area, including walking the project limits.
- US Census Bureau data
- Public school data (Washington State Office of the Superintendent of Public Instruction and Spokane School District 81)
- Geographic Information System data
- Google Maps information
- Local planning documents
- Washington State Office of Minority and Women’s Business Enterprises database of businesses

Two sources were used for demographic data: US Census Bureau and Washington State Office of Superintendent of Public Instruction (OSPI). Information was also collected from local sources, such as community services.

2000 Census Data

The 2000 Census data was collected for Block Groups that overlap the Study Area. This includes information about race, poverty status, household language by **linguistic isolation**, disability, age (65 and older), and households without a vehicle available. These 16 Block Groups are shown in **Figure 1.4**.

Linguistic Isolation: A linguistically isolated household is one in which no member 14 years old and over (1) speaks English only or (2) speaks English “very well.” In other words, all members 14 years old and over have at least some difficulty with English.

OSPI Data

The smallest geographic unit used by OSPI for data reporting is the elementary school district. This is geographically larger than the Census Block Group, but has more current information. The most recent data available was collected for the 2009-2010 school year.

The OSPI provides information about students that can indicate general population tendencies, including ethnicity, poverty status, and recent immigration from non-English speaking places. The Transitional Bilingual program in the schools offers English Language Development instruction featuring additional English language assistance. Student enrollment in this program reflects the general population rates of Limited English Proficiency. Free and Reduced-Price Meals program benefits are available to students from households with income levels below certain thresholds. Student enrollment in this program indicates low-income population levels in the district.

The entire project Study Area lies within the Spokane School District. The elementary school districts within the Study Area are Arlington, Bemiss, Cooper, Logan, and Regal (see **Figure 1.5**). All of these school buildings except Logan Elementary are within the Study Area.

1.5.3 Environmental Justice Evaluation

The Environmental Justice evaluation determines whether low-income populations or minority populations would suffer *disproportionately high and adverse effects* of an action. This means that:

1. low-income populations or minority populations would predominately bear the adverse effects; or
2. low-income populations or minority populations would suffer the effects and the effects would be considerably more severe or greater in magnitude than the adverse effects suffered by the general population.

If either of these is found to be the case, the evaluation proposes mitigation that would offset the adverse effects.

According to the Federal Highway Administration, a primary goal of Environmental Justice is to engage those groups who have traditionally been underrepresented in the project development process. Therefore, WSDOT must provide meaningful opportunities for involvement in the decision-making process, regardless of race, color, national origin, or income. All potentially affected communities should have opportunities to participate, and their contributions and concerns should be considered fairly. The demographic and community information was therefore used in designing and carrying out public involvement for the Redesign. Public involvement is detailed in Chapter 4 of this report.

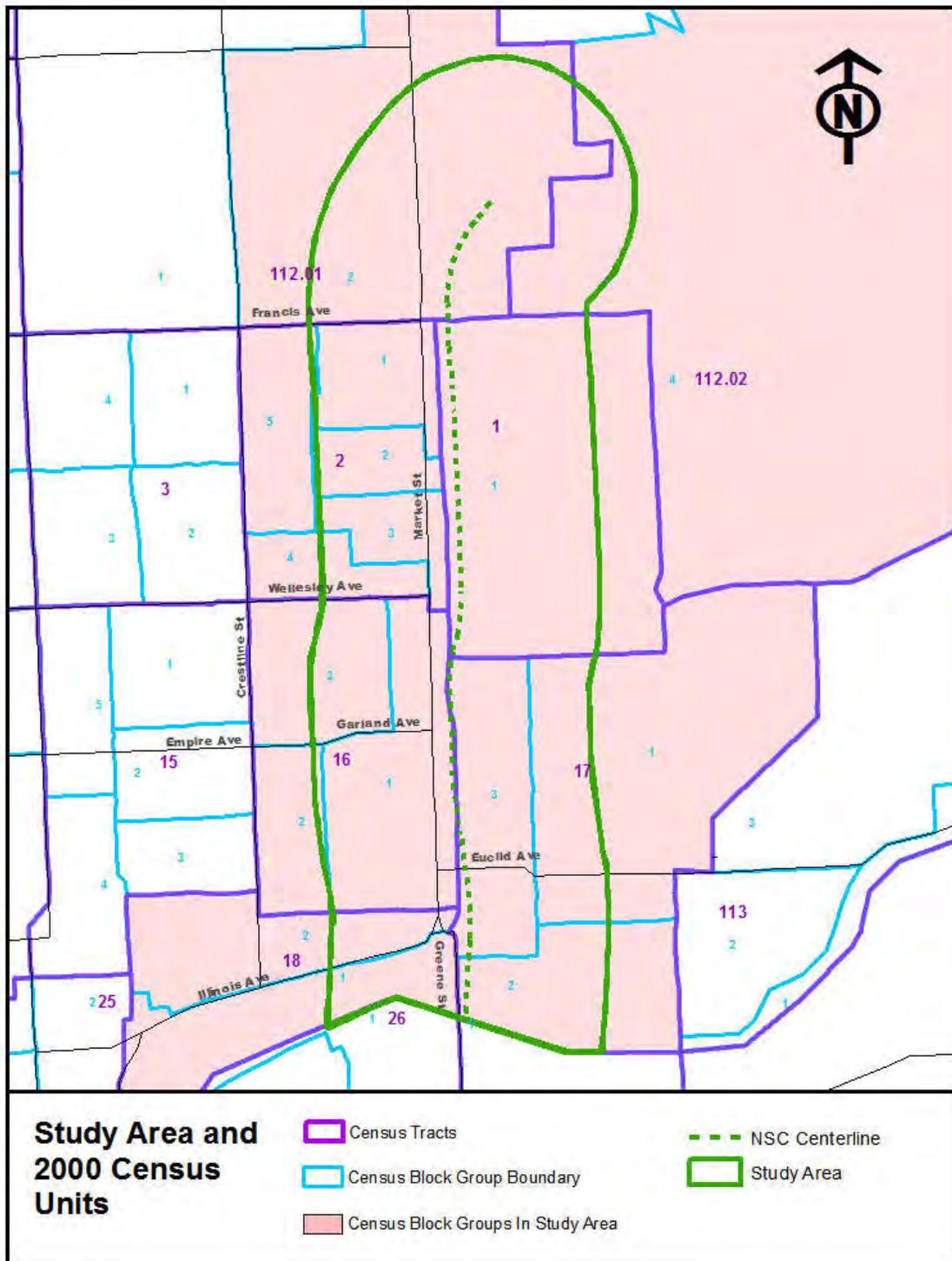


Figure 1.4 Study Area

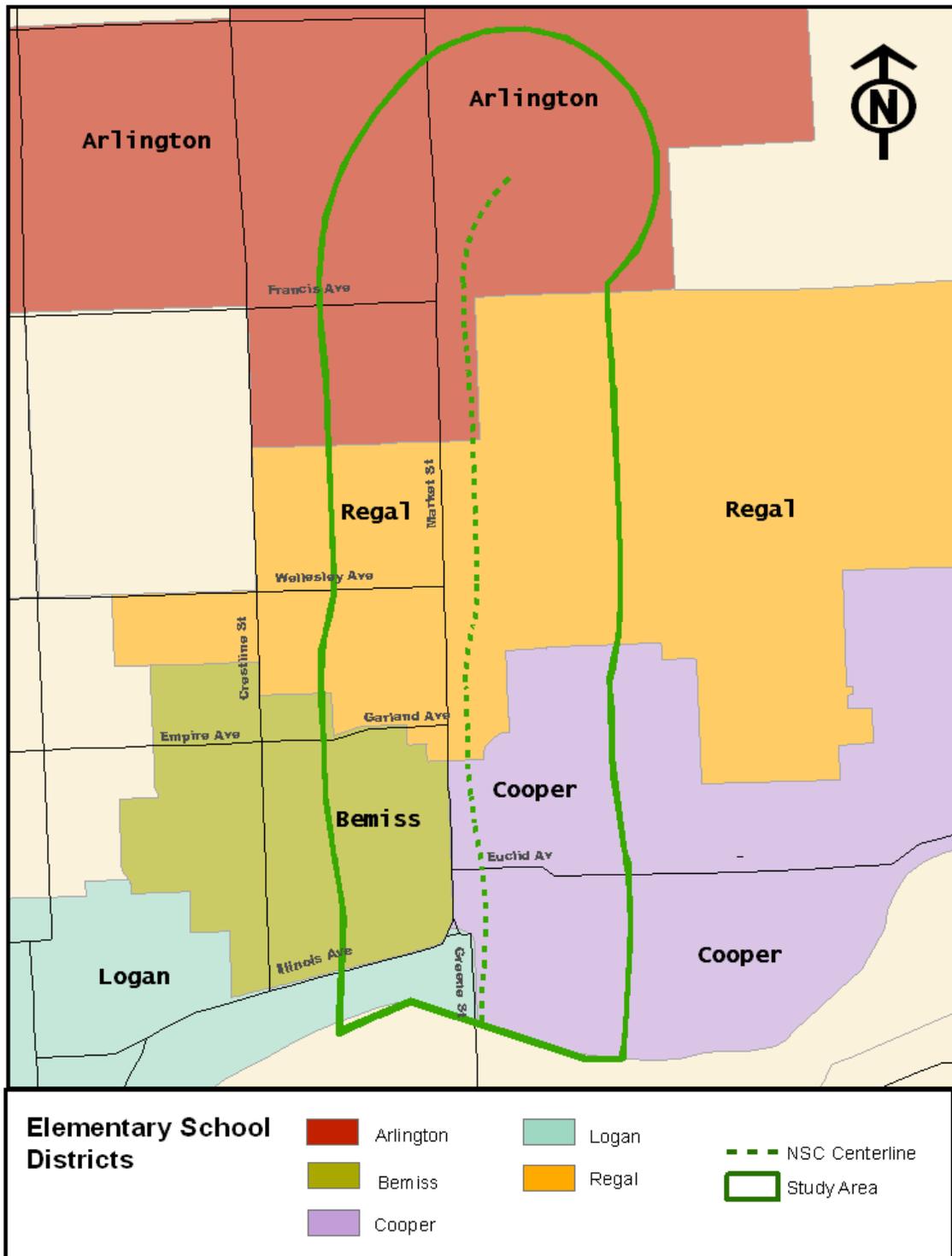


Figure 1.5 Elementary School Districts

2.0 Existing Conditions

This chapter discusses the existing conditions within the Study Area, including neighborhoods, community cohesion, demographics, community and economic resources.

2.1 Neighborhoods

2.1.1 Hillyard

The neighborhood known as Hillyard is in the northeastern corner of the City of Spokane (City). It is generally bounded by Francis Avenue on the north, Garnet Avenue on the south, Crestline Street on the west, and Havana Street on the east. Business corridors parallel the BNSF railroad tracks on Market and Freya Streets. Francis Avenue also has a business corridor associated with it. These are surrounded by residential areas.

Hillyard grew around the Great Northern Railroad yard in the 1890s. This railroad facility had machine shops, a round house, and multiple tracks. The community grew with the employment opportunities provided by the railroad yard. It was officially annexed into the City in 1924.

As the railroad industry declined in the United States, employment in Hillyard dropped and the neighborhood deteriorated. However, in recent years Hillyard has undergone revitalization efforts. Several blocks of the core commercial section were established as a Historic Business District in 2002. The recent Market Street Revitalization Project rehabilitated the commercial core area, adding pedestrian-friendly streetscape and traffic calming elements. Hillyard has also been designated a “Targeted Development Area” by the City of Spokane, which provides tax incentives for development and special consideration for capital project funds.

2.1.2 Minnehaha

The Minnehaha neighborhood is on the north bank of the Spokane River, between Havana Street on the east and Market Street on the west. The northern limit is Garnet Avenue. At Greene Street the northern boundary shifts south to Illinois Avenue. This creates a “panhandle” on the southwestern end of neighborhood, with the western limit being Regal Street. This neighborhood is mostly residential, with a City park in the northeast corner.

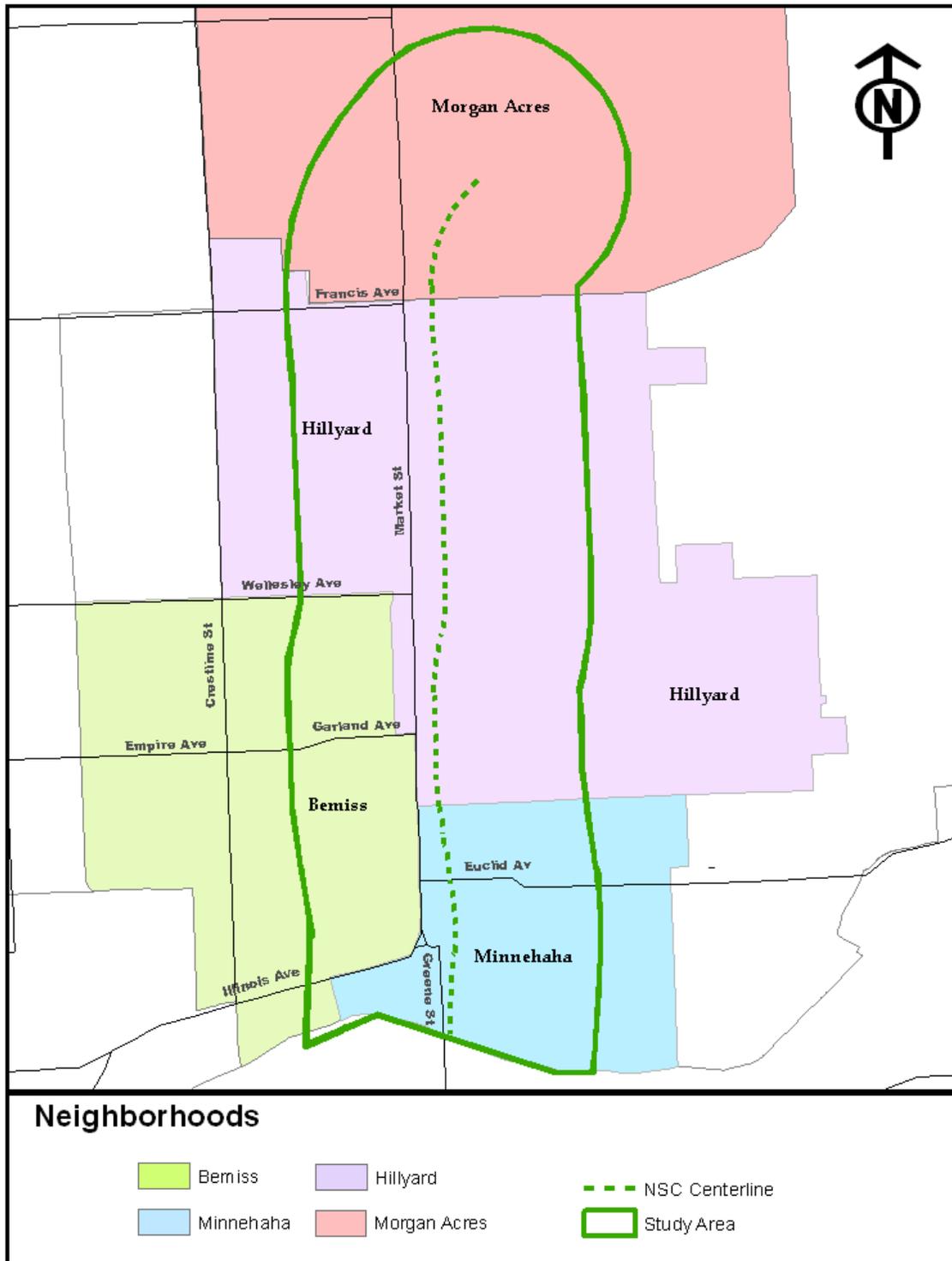


Figure 2.1 Neighborhoods in Study Area

2.1.3 Bemiss

The Bemiss neighborhood is on the west side of Market Street between Wellesley and Illinois Avenues. There is a small portion that extends south to the Spokane River, immediately to the west of the Minnehaha neighborhood panhandle. The western limits are approximately Perry and Crestline Streets. Market Street continues to be a major business corridor along the entire eastern boundary. Parks, schools, and the community center are generally located in the center of the neighborhood. The remainder of the area is mostly residential with some mixed use locations.

2.1.4 Morgan Acres

The Morgan Acres neighborhood is generally on the north side of Francis Avenue/ Bigelow Gulch Road, lying just outside City limits in Spokane County. The eastern boundary is approximately ½ - mile east of Havana Street. The northern limit is roughly Magnesium Road. The western limit is approximately Crestline Road. The residential lot sizes tend to be near one acre. This allows for animal keeping and large gardens, which contribute to the rural character of the neighborhood. North of Lincoln Road the land use is generally industrial. Market Street and Francis Avenue are major retail business corridors in the neighborhood.

2.2 *Community Cohesion*

Community cohesion describes the interaction of people within a community that leads to a sense of connection. Gathering places such as public parks, churches, libraries, schools, social service providers, and restaurants help generate cohesion. Regular local events and publications can also indicate the amount of cohesion in a community.

The Hillyard and Bemiss neighborhoods display a high level of community cohesion, as well as a strong association with each other. Bemiss organizations, such as the neighborhood council, often work together with Hillyard on event planning and civic actions. Many Hillyard organizations include members located in Bemiss, such as the Hillyard Hobo Bulletin and Historic-Hillyard.com. The Hillyard/Bemiss area is rich in gathering places including the Hillyard Center, Northeast Community Center, as well as numerous churches, parks, and schools.

There are also active community organizations that show a strong sense of civic pride. The Hillyard Festival Association hosts the Hillyard Festival and Hi-Jinks Parade, and outdoor event featuring local vendors, performers, games, and other activities. The recent Market Street Revitalization Project was developed working with local business and neighborhood organizations to include aesthetic elements such as lamp posts, street trees, and sidewalks. There is also local media - the Hillyard Hobo Bulletin newsletter, and Historic-Hillyard.com website. Both of these feature area historic trivia, community updates, and local business advertisements.

Community cohesion in Minnehaha does not appear to be as high as Hillyard and Bemiss. The Minnehaha neighborhood does not have the same quantity of community resources as Hillyard and Bemiss. Minnehaha does benefit from being adjacent to the Hillyard and Bemiss neighborhoods, and taps in to their resources.

The Morgan Acres neighborhood has a high level of cohesion indicated by recent civic action. In response to the Spokane County Comprehensive Plan, residents of Morgan Acres chose to work with Spokane County to develop their own Subarea Plan. There was concern that the rural nature of Morgan Acres would be lost. The community objected to proposed zoning that would allow denser development and prohibit animal keeping. The ability to effectively unite to maintain the character of the neighborhood demonstrates a sense of connection.

2.3 Businesses in Study Area

Businesses in the Study Area are generally located on or within a few blocks of Market Street, Freya Street, and Francis Avenue. Most are small, with less than 20 employees, and service-oriented, such as retail stores, restaurants, and repair shops. The repair shops are mostly automotive. These small businesses are likely to have local resident employees making up a significant portion of their workforce.

The medium-sized businesses in the Study Area, with 20 to 100 employees, include restaurants (Zip's Drive-In and McDonald's), retail stores (Modern Office Equipment and Safeway), and a pasta manufacturing plant (Pasta USA). While they may also employ people residing in the surrounding neighborhood, Modern Office Equipment and Pasta USA may have specialized needs that the local labor force cannot supply, and are thus more likely to hire people from outside the Study Area.

The large businesses in the Study Area have over 100 employees. They are mostly food distribution and warehouse facilities including URM Stores, Food Services of America, and the Safeway distribution site. They are not dependent on their current physical location for business viability, and are most likely to draw employees from a wider area.

Minority-Owned Businesses, and Minority-Oriented Businesses

Two minority-owned businesses were found in the Study Area in a search of the Washington State Office of Minority and Women's Business Enterprises database. One is electronics sales and repair, and the other construction. Both are in Hillyard east of the NSC. During the field visit, one authentic-type Mexican restaurant was noted on Market Street near Euclid Avenue. It may be minority-owned, but is not listed in the database. None of these businesses would be adversely impacted by the project. There are no other businesses within the study area that cater to ethnic groups. Minority-oriented businesses were located elsewhere in the city, and many were contacted and served as outlets for project information. See Section 4 and Table 4.1 for more detail.

2.4 Community Resources

This section lists and describes the parks, community centers, public schools, churches and other resources that serve the Study Area. These are shown on the maps in **Figures 2.2, 2.3, and 2.4.**

The Hillyard Center 4410 N. Market St.

The Hillyard Center is an Institute for Extended Learning (IEL) site. The IEL is one of the three parts of the Community Colleges of Spokane. It provides educational services to meet the needs of disadvantaged people by offering life skills, high school completion, and college prep courses. This site is intentionally located close to the populations it is intended to serve. Classes and services provided at the Hillyard Center include:

- WorkFirst – Workforce skill development classes for people transitioning out of public assistance
- Adult Basic Education – English as a Second Language (ESL), General Educational Development (GED), computer classes.
- Head Start – early childhood education targeting children from low income families.

Northeast Community Center 4001 N. Cook St.

The Northeast Community Center is a non-profit organization that creates public/private partnerships to provide social services to residents in northeastern Spokane. The Northeast Community Center collaborates with the following organizations:

- Spokane Neighborhood Action Program (SNAP) – Budget counseling and financial help with energy bills and home repairs for low income people.
- Northeast Food Pantry – Emergency food bank
- Head Start – Early childhood education targeting children from low income families.
- Hillyard Senior Center – Social activities for senior citizens
- Community Health Association of Spokane (CHAS) – Primary care clinic for low income, uninsured people.
- Easter Seals – Child care, education, and employment assistance for low income disabled people and their families.
- Women, Infants, and Children (WIC) Nutrition Program – Nutrition education and financial assistance for low income women that are pregnant or have young children.

Other services provided at the Northeast Community Center include immunizations, computers with internet access, and senior nutrition program lunches.

Spokane Mental Health 5125 N. Market St.

Elder Services connects isolated at-risk elderly people with resources that help them maintain independence with a decent quality of life.

Spokane Library, Hillyard Branch 4005 N. Cook St.

This is a branch library located next to the Northeast Community Center. It also has a public meeting room and computers with internet.

Public Schools

- Arlington Elementary School
- Cooper Elementary School
- Bemiss Elementary School
- Regal Elementary School
- Shaw Middle School
- Spokane Skills Center – Teaches vocational and technical skills to help Spokane County high school students find career-track employment.

Public Parks and Recreation Areas

- Hillyard Aquatic Center – Swimming pool with food service and swimming lessons
- Harmon-Shipley Park – Neighborhood park with playground equipment, picnic areas including shelter, restrooms, tennis courts, basketball courts, softball field, skate park, and a splash pad.
- James J. Hill Park – Neighborhood park with playground equipment, picnic areas, and restrooms.
- Kehoe Park– Neighborhood park with playground equipment, picnic areas including shelter, and restrooms
- Esmeralda Golf Course – An 18-hole golf course owned by the City.
- Minnehaha Park– Neighborhood park with playground equipment, picnic areas, restrooms, softball fields, tennis courts, hiking trails
- Wildhorse Park– Neighborhood park with playground equipment
- Centennial Trail – Paved bicycle/pedestrian pathway generally following the course of the Spokane River.
- Courtland Park – Neighborhood park with softball fields, picnic areas, and restrooms.
- Andrew Rypien Field – owned by Spokane Youth Sports Association. Soccer and softball fields, basketball courts, picnic areas, and the Northeast Community Garden.
- Morgan Acres Park - Community park with a basketball court, playground equipment, picnic areas, and restrooms.

Transit Service

The Spokane Transit Authority operates bus routes mostly on main arterials in the Study Area.

- The #27-Crestline – Enters the Study Area from the west on Empire Avenue. It heads north on Cook Street, and then east on Wellesley Avenue. Service continues east on Wellesley Avenue over to Market Street, then north alternating between Rowan Avenue and Francis Avenue for the westward part of the Hillyard loop.

- The #33-Wellesley – Enters the Study Area from the west on Wellesley Avenue, and heads south at the Haven Street/Market Street couplet. Continues south over the Spokane River to the Spokane Community College campus.
- The #29-SCC – Enters the Study Area from the south on Greene Street, and turns east on Jackson Avenue. It winds north through the neighborhood until it reaches Euclid Avenue. The loop is completed when the route turns south onto Market Street, which becomes Greene Street.
- The #31-Garland – Enters the Study Area from the west on Empire Avenue, and heads south on Market Street. Continues south over the Spokane River to the Spokane Community College campus.

Paratransit is a shared-ride van service available for people who cannot ride the bus due to disability. This service is offered throughout the entire Study Area, with hours of operation that are comparable to the fixed bus routes.

WSDOT has done preliminary grading work for a Park and Ride facility near the bicycle path trailhead on Freya Street, and is working with the Spokane Transit Authority to establish this site.

Churches

- New Beginnings Open Bible Church
- Church of the Resurrection
- Trinity Lighthouse
- Vietnamese Buddhist Community
- Hillyard Assembly of God & Victory Outreach
- Mary Queen Parish Church
- Minnehaha Covenant Church
- Faith Baptist Church
- St. Patrick's Catholic Church
- Living Water Christian Fellowship

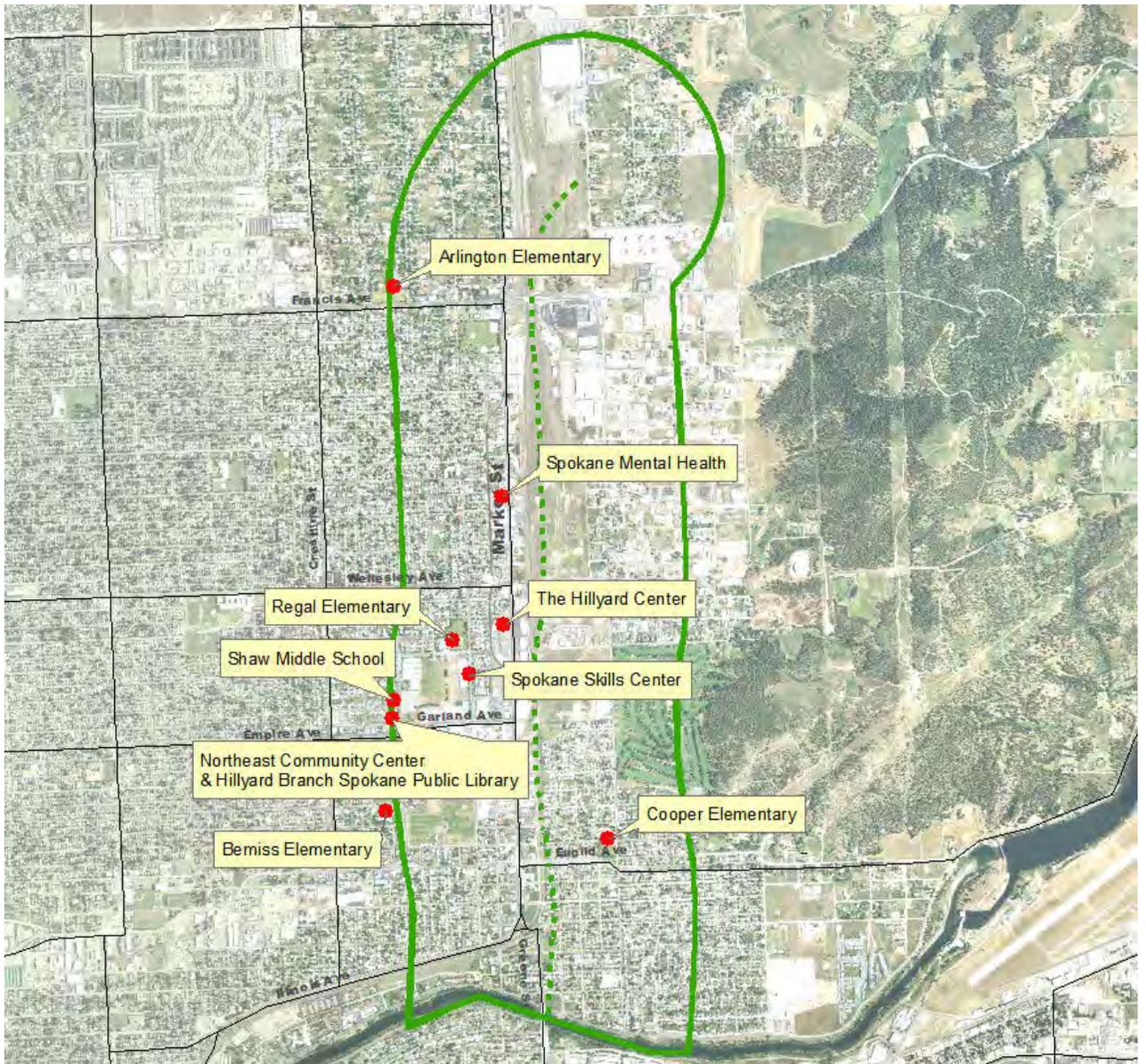


Figure 2.2 Schools and Community Services

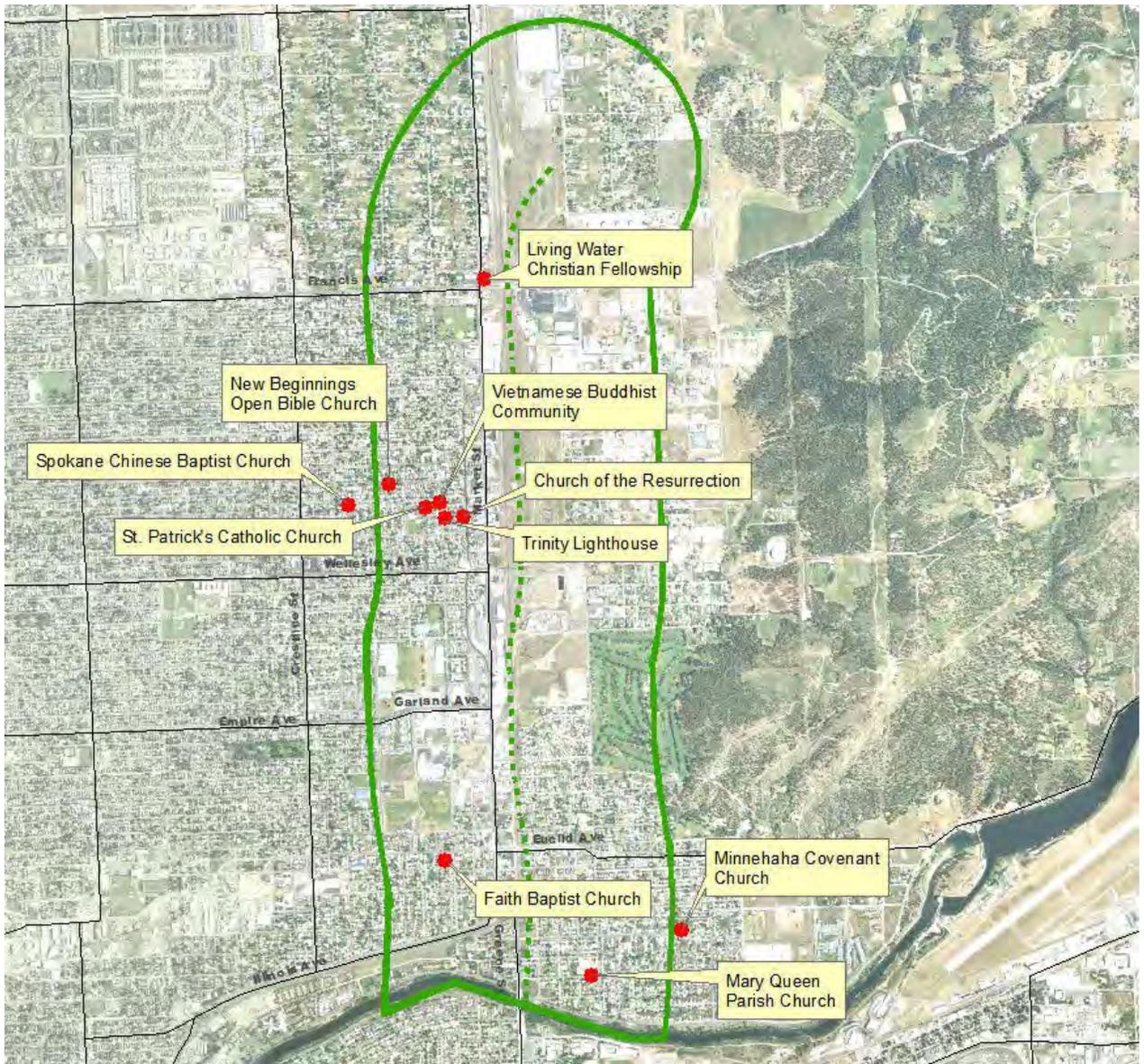


Figure 2.3 Churches

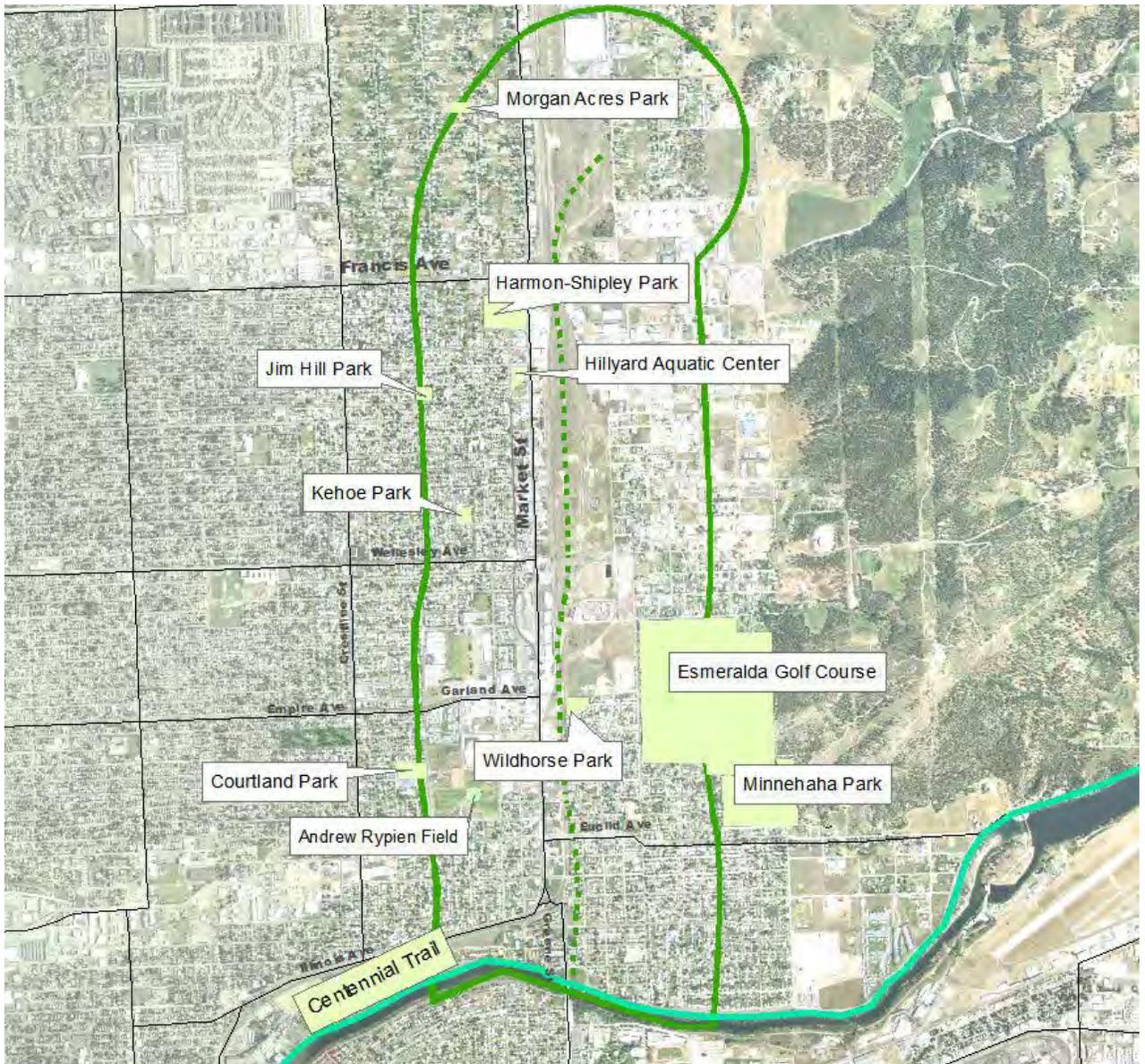


Figure 2.4 Parks

2.5 Demographics

As displayed in **Figure 1.2**, the main alignment difference between the FSEIS Design and the proposed Redesign is a shift of about one block to the east between the Spokane River and Wellesley Avenue. The area on the east side of the corridor is generally solidly residential up to Garland Avenue. The first block to the west of the corridor is generally commercial/industrial uses that lie between the existing rail road and the Market Street arterial.

Demographic information has been gathered by using US Census Data, and OSPI data, as well as from local sources and field visits. The two data sources are highly disparate in terms of how and when the data is collected, as well as the boundaries that are covered. The US Census Data is collected every ten years by household survey, and is reported by defined Block Groups. The OSPI data is collected yearly from elementary school enrollment. The elementary school district boundaries (shown in **Figure 1.5**) do not coincide with US Census Block Group boundaries (shown in **Figure 1.4**). Within this project study area, there is a Block Group boundary that coincides with the existing rail road corridor, which is essentially the FSEIS Design alignment through the residential area. The Cooper school district is mainly on the east side of this alignment but its western boundary extends one block west of the corridor, to Market Street. In other words, the portion of Cooper school district that is on the west side of the corridor is the one block strip between Market Street and the existing rail road, which is almost entirely commercial and industrial. Therefore, for comparison purposes, we are discussing the Cooper school district as being on the east side of the corridor and Bemiss school district on the west side of the corridor.

The demographic information is used to make some comparisons between particular neighborhoods or other geographic areas in terms of characteristics of the population. Then, the analysis of impacts of the proposed action, in Section 3 of this report, is discussed in terms of how it would affect different populations.

2.5.1 Racial Minority Populations

US Census Data

Census data regarding race was gathered at the Block Group level from Summary File 3 Table P7. Table P7 breaks out race data by Hispanic or Latino populations. It shows that there were racial minority populations within the Study Area. The largest non-white populations present included American Indian and Alaska Native, Hispanic or Latino, and Asian. **Figure 2.5** is a map of 2000 Census data, highlighting the non-white percentages of the Census Blocks within the Study Area. The area with the highest concentration of non-white populations, at approximately 30 percent, is west of the BNSF railroad corridor, between Cleveland and Wellesley Avenues.

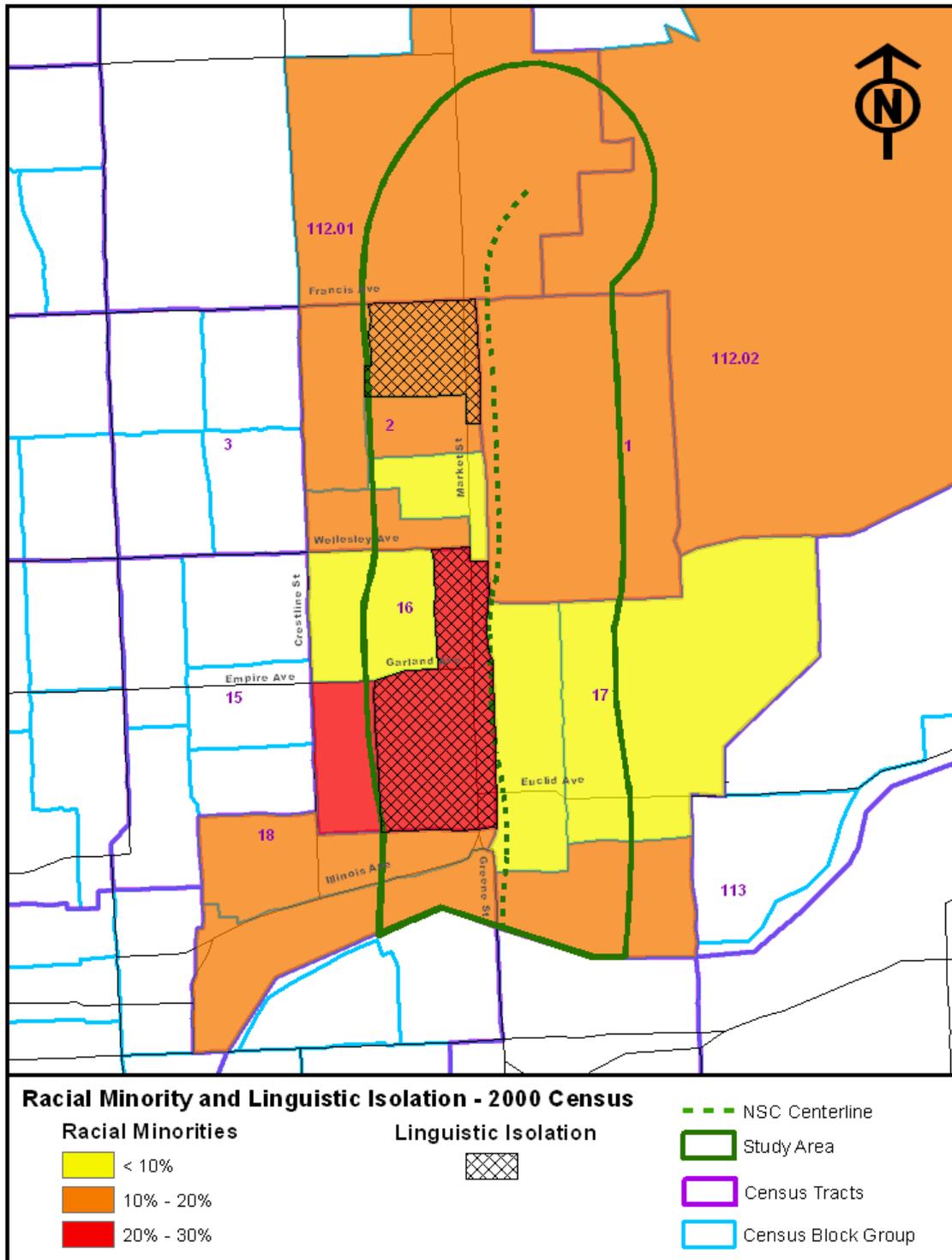


Figure 2.5 Minority Rates and Linguistic Isolation

OSPI School District Data

The elementary school race data was reported October 2010. **Figure 2.6** compares the percentages of non-white students in each school district. The two school districts with the higher percentages of non-white students were Logan and Bemiss. These districts are located entirely on the west side of the corridor. Most of the Logan school district is beyond the Study Area limits. The school with the next highest percentage of non-white students was Cooper. The Cooper district contains the part of the corridor which is proposed to be shifted to the east, and therefore where the majority of the additional residential property acquisition would occur with the Redesign. (School districts are mapped in **Figure 1.5**.)

As a comparison, OSPI data for the entire Spokane School District, all grades, shows 24.4% non-white.

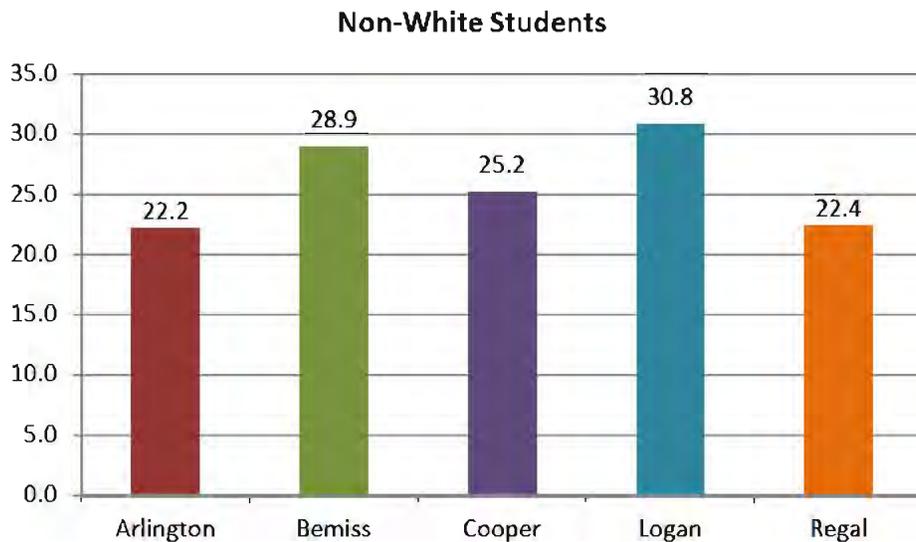


Figure 2.6 Elementary School Race Data

2.5.2 Limited English Proficiency

US Census Data

Census data regarding linguistic isolation was gathered at the Block Group level from Summary File 3 Table P20. Table P20 shows household language by linguistic isolation, with the language categories of Spanish, Other Indo-European languages, Asian and Pacific Island languages, and Other languages. The Census reports households as linguistically isolated if all members 14 years old and over speak a non-English language and also self-report that they “speak English less than very well.” This data, along with OSPI and local information sources, indicate the presence of populations with Limited English Proficiency (LEP). Following the US Department of Justice’s threshold, WSDOT’s policy is to translate project-related materials and provide interpreters in a particular non-English language if demographic data

indicates at least 5% or 1,000 persons in a project study area speaking that language have Limited English Proficiency. The data is displayed below in **Table 2.1** for the total of the sixteen Census Block Groups overlapping the Study Area.

Table 2.1 Linguistically Isolated Household Data

Census Language Group	Households in Study Area	Percentage of Study Area
Spanish	12	0.2
Other Indo-European	189	2.6
Asian and Pacific Island	48	0.6
Other	0	0

The LEP population for each of the language groups falls well under the threshold for translation. Individually, two Census Block Groups had linguistic isolation rates over 5%. Those two Block Groups had 11% of households linguistically isolated, with the language spoken at home being Indo-European Languages other than Spanish. In this area, Russian is most likely the language of the majority of this population, according to information gathered from local sources. These Block Groups are on the west side of the corridor, as shown in **Figure 2.5**.

OSPI School District Data

The OSPI data includes student participation in Transitional Bilingual Instruction Programs. A breakdown by language spoken is not reported, so these percentages are cumulative of all non-English languages. The data, as of May 2010, for the five schools in the project area is displayed below in **Figure 2.7**. Cooper Elementary, which contains the part of the corridor which is proposed to be shifted to the east, and therefore where the majority of the additional residential property acquisition would occur with the Redesign, had the highest percentage of students enrolled in bilingual instruction.

As a comparison, OSPI for Spokane School District, all grades, shows 4.3% of students enrolled in Transitional Bilingual programs.

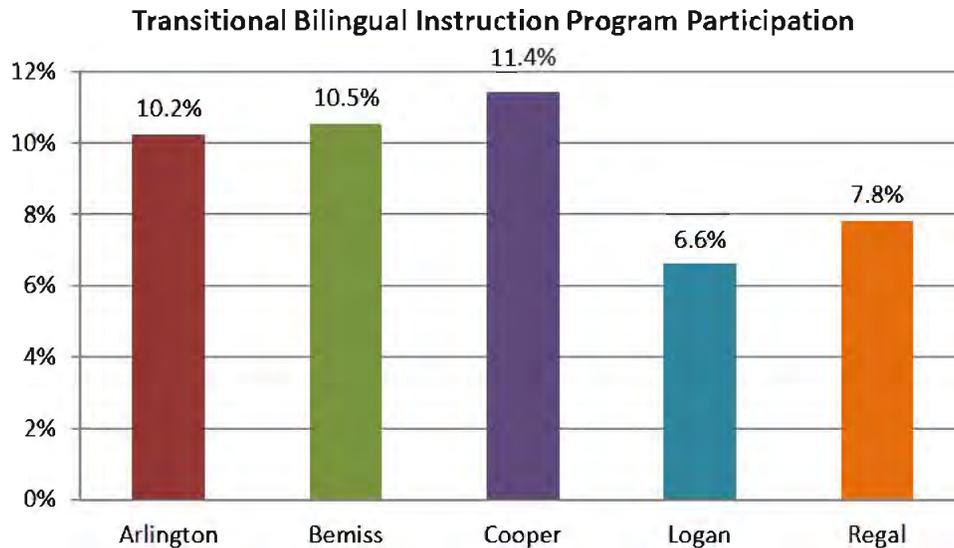


Figure 2.7 Elementary School Transitional Bilingual Instruction

Local Information Sources

WSDOT contacted local organizations to help determine the prevalence particular languages in the Study Area. The English Language Development (ELD) program for Spokane School District 81 provided that the common languages spoken by ELD students within the school districts overlapping the Study Area, listed in alphabetic order are: Marshallese, Russian, Spanish, and Vietnamese. The Hillyard Center Institute for Extended Learning (IEL) was contacted about their English as a Second Language (ESL) program participants. They indicated that their ESL students are most often from the following places, listed in alphabetic order: Bhutan, Burma, Iraq, Latin America, Marshall Islands, Nepal, former Soviet Union, and Vietnam.

By mapping the data we collected, we found there was some correlation between the US Census data and the more current OSPI data in the residential portion of the study area (between the Spokane River and Garland Avenue): both show the area west of the corridor as being relatively higher than the east side in percentage of racial minority population and low-income population. However, the data does not correlate in terms of language. The US Census data shows a much higher percentage of linguistically isolated households on the west side than the east, but the school district data indicates a slightly higher percentage of students in the Cooper school district (east side) enrolled in transitional language instruction than in the Bemiss school district (west side).

Census data showed two Census Block Groups meeting the threshold for LEP, in indo-European languages other than Spanish. Community contacts, particularly the school district and Community College, indicated that the most prevalent such language is Russian. Data shows other languages represented, although not meeting the

threshold for LEP. With input from various community services, WSDOT provided printed material in Marshallese, Spanish, and Vietnamese, as well as Russian, and distributed these through the community contacts and foreign language newspapers. The translated Open House announcements stated that, upon request, a translator would be present at the public meeting. The community contacts provided many potential liaisons for such requests as well. There have been no requests for translation services throughout the public involvement and outreach to date.

2.5.3 Low-Income Populations

US Census Data

Census data regarding poverty was gathered at the Block Group level from Summary File 3 Table P88, which reports the ratio of household income to Federally-established poverty limits. **Figure 2.8** shows the 2000 Census data poverty percentages by Census Block Groups. Poverty levels varied widely through the Study Area. Roughly half of the Study Area had household poverty rates above 20 percent, and the highest rate was almost 40 percent. The area with the greatest percentage of low-income population is to the west of the BNSF railroad corridor, between Cleveland and Wellesley Avenues. The area with the lowest percentage is to the east of the railroad corridor, between the Spokane River and Garland Avenue.

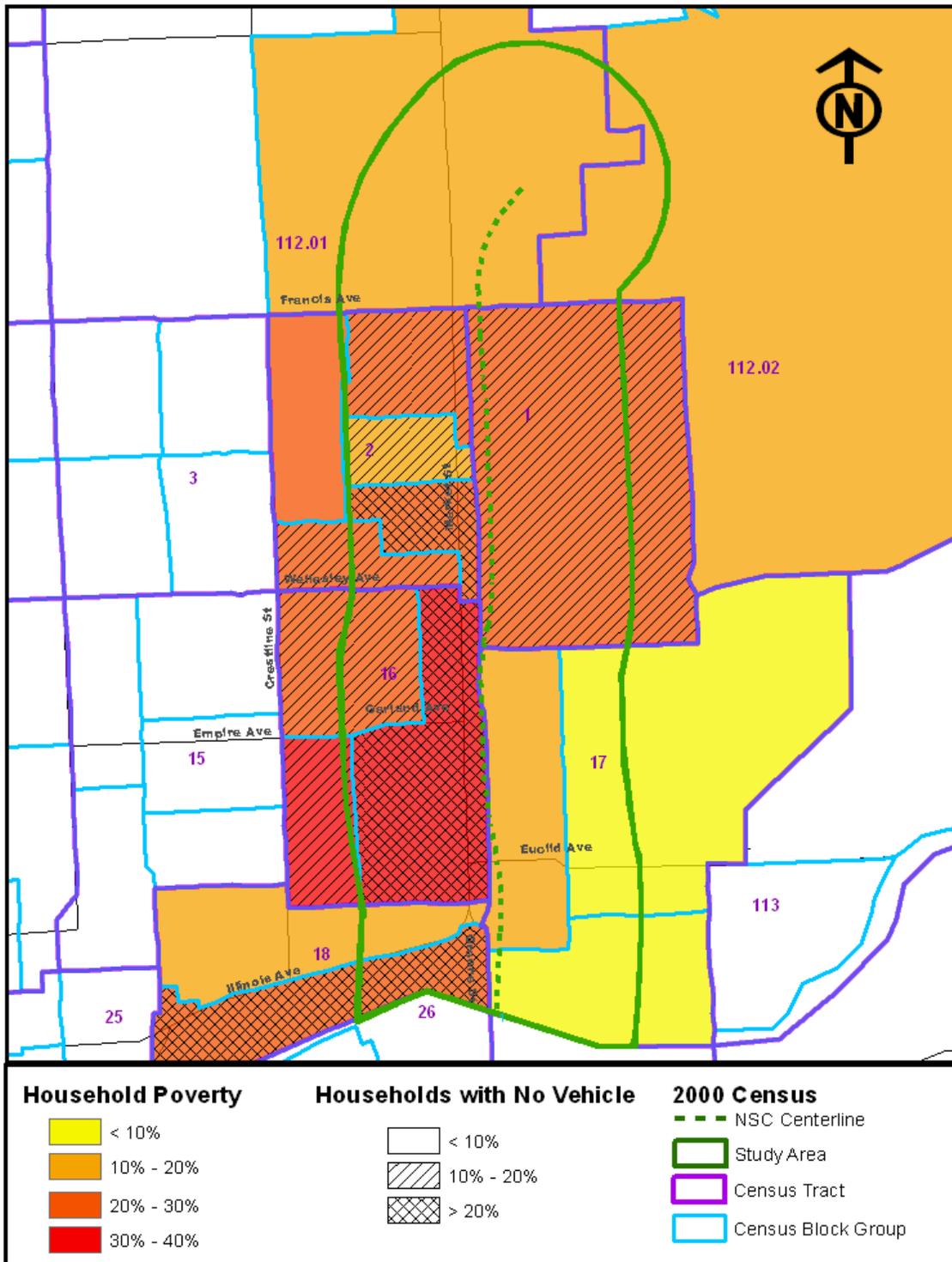


Figure 2.8 Household Poverty and Lack of Vehicle

Census data about vehicle availability was gathered at the Block Group level from Summary File 3 Table H44. Table H44 has how many vehicles are available per household. Lack of vehicle access can be barrier to participation, as well as an indicator of poverty or disability. Rates of households with no vehicles are shown in Figure 2.8. The three Block Groups with more than 20 percent of their households lacking vehicles were all west of the BNSF railroad.

OSPI School District Data

The elementary school Free or Reduced-Price Meals program data was reported in May 2010. All of the elementary schools present within the study area had above 62 percent of their students participating in the program, with the highest having over 82 percent. Bemiss and part of Regal school district, coincide with the Census Block Groups that showed the higher concentrations of low-income populations.

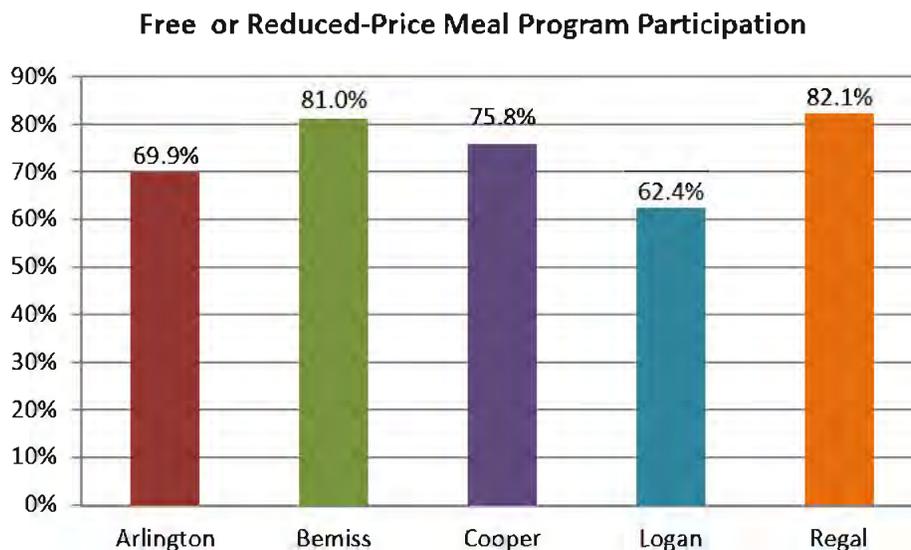


Figure 2.9 Elementary School Free or Reduced-Price Meal Program Data

As a comparison, OSPI for Spokane School District, all grades, shows 55.7% of students participating in Free or Reduced-Price Meals.

2.5.4 Elderly and Disabled Populations

US Census Data

Census data regarding age distribution was gathered at the Block Group level from Summary File 3 Table P8. The percentage of people age 65 or older was less than 20 percent throughout the Study Area, with one exception: Block Group 1 Tract 18 at the southern end of the Study Area immediately west of the corridor, showed over 30 percent of the population being over age 65. This is likely due to the Riverview Retirement Community which is in this Block Group but beyond the Study Area limits. Overall, Census data, mapped in Figure 2.10, shows a somewhat higher concentration of elderly population on the west side of the corridor.

Census information regarding disability was gathered at the Block Group level from Summary File 3 Table P41, which tallies the number of disabilities reported. **Figure 2.11** shows disability rates were variable throughout the Study Area. Overall, it shows a somewhat higher concentration of populations reporting disabilities on the west side of the corridor.

Local Information Sources

The Northeast Community Center, located on the west side of the corridor in Tract 16, hosts the Hillyard Senior Center. This provides health and wellness classes, social activities, and meals for senior citizens. The Northeast Community Center also hosts Easter Seals, organizes employment training, coordinates assistive technology, and provides child care for disabled people. Spokane Mental Health has an Elder Services office in Hillyard on the west side of Market Street.

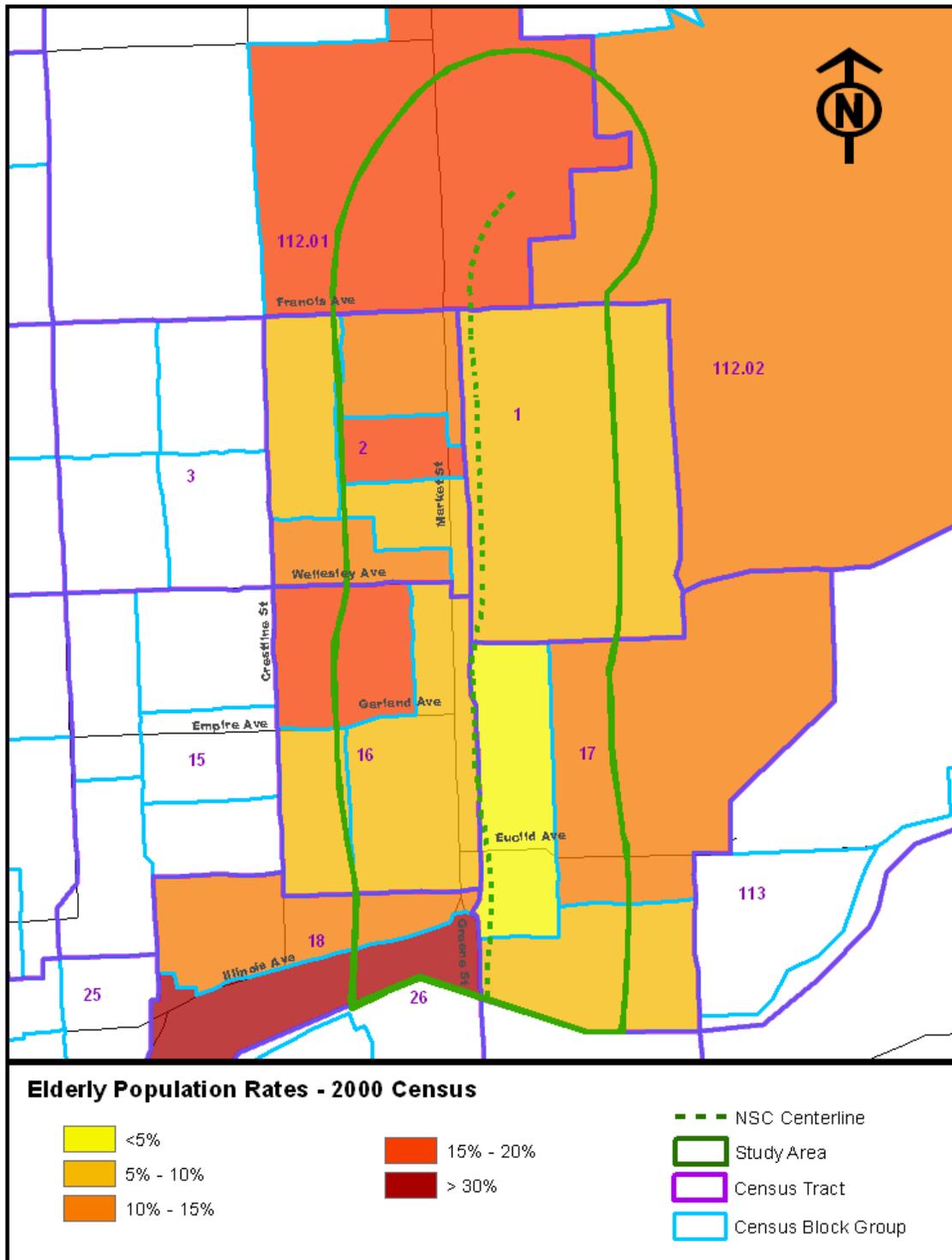


Figure 2.10 Elderly Populations

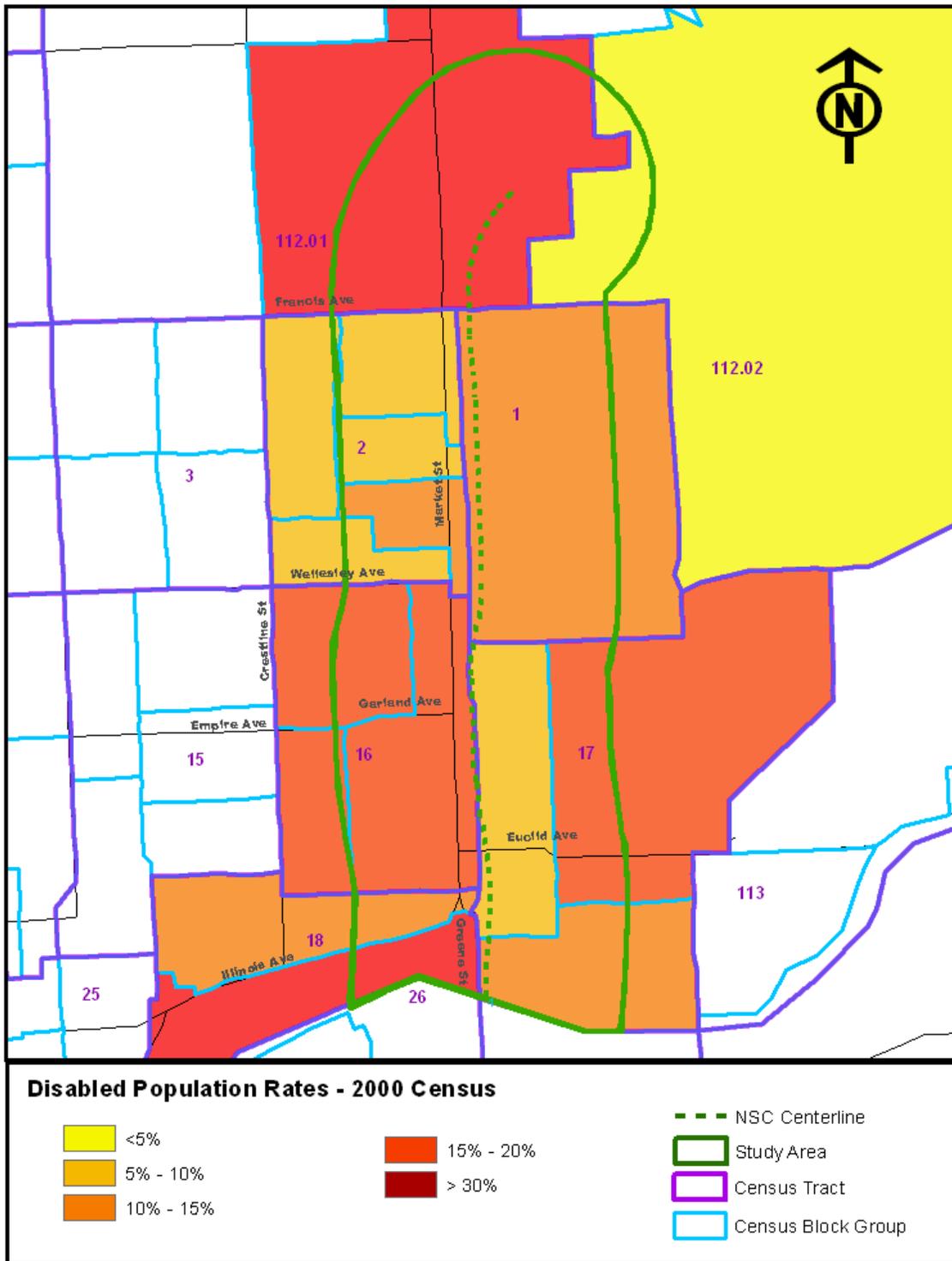


Figure 2.11 Disabled Populations

3.0 Project Impacts and Mitigation

This chapter describes and compares the social and economic effects of the FSEIS (updated where appropriate) and the Redesign, along with any associated mitigation. This includes long-term effects, temporary effects during construction, indirect effects, cumulative effects, and project benefits.

3.1 Direct Effects

3.1.1 Property Acquisition and Displacement

Right-of-way purchases have been underway over the past several years. With the overlap in areas of the FSEIS and the Redesign, most of the properties that have already been purchased would be used for the Redesign. Therefore, the comparison of property impacts is discussed in terms of the total for the overall footprint, number of displacements common to both alignments, and number of displacements due to property that would need to be purchased from this point forward with each alignment.

Property needed for right-of-way associated with improvements to local streets and intersections beyond the NSC make up a small percentage of the amount of property needed for the project overall (4 residential and 3 business properties). Although these had not been determined at the time of the FSEIS, they would be the same for both alignments. They have therefore been added to the FSEIS count.

The following sections describe the differences, and **Table 3.1** compares the full property acquisition for each alignment. Partial acquisitions that would be extensive enough to be likely to interfere with the current use of the property have been included as full acquisitions. The Comparison column shows the reduction of property acquisition needed with the Redesign as compared with the FSEIS. The alignments are shown side-by-side in **Figure 3.4**. The comparison maps show Spokane River to Wellesley Avenue, since there is no difference between the FSEIS and the Redesign in the NSC mainline north of Wellesley Avenue.

Two residences, two business properties, and one vacant lot that have been purchased for the FSEIS will not be needed for the Redesign. These properties may be used temporarily during construction for staging. If they are used temporarily, or not at all, they will eventually be sold as surplus property.

The Redesign would result in a decrease in displacement of residents and businesses due to private property acquisition, as compared to the FSEIS. The largest reduction with the Redesign is in the number of residential units that would be acquired.

Table 3.1. Property Acquisition Summary

Land Use	FSEIS Design	Redesign	Comparison
Residential Units	96 total footprint 14 purchased to date 82 yet to be acquired*	79 total footprint 12 purchased to date 67 yet to be acquired*	17 fewer total 15 fewer to be acquired*
Businesses	36 total footprint 14 purchased to date 22 yet to be acquired*	30 total footprint 12 purchased to date 18 yet to be acquired*	6 fewer total 4 fewer to be acquired*
Vacant lots	19 total footprint 10 purchased to date 9 yet to be acquired*	16 total footprint 10 purchased to date 6 yet to be acquired*	3 fewer total 3 fewer to be acquired*

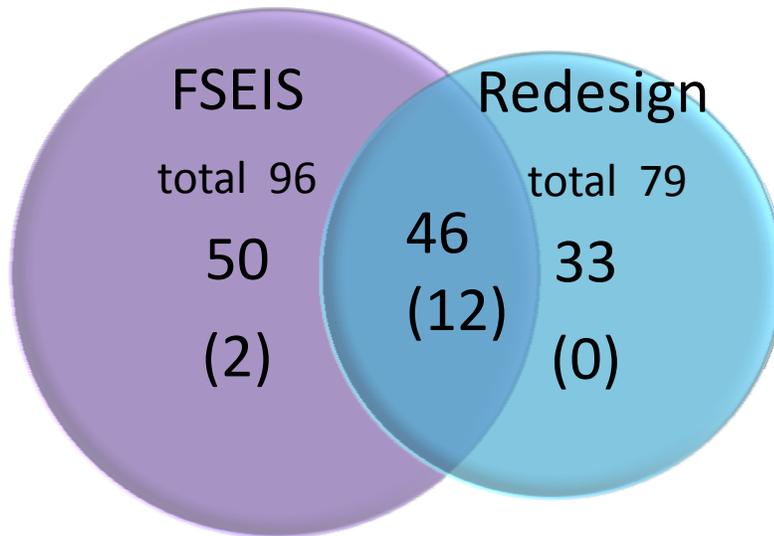
* Comparative number of properties that would be acquired if project moves forward with Redesign .

Residential Relocation

The FSEIS design would acquire and relocate a total of 96 residential units between the Spokane River and Francis Avenue. This figure includes two apartment complexes, one with 42 units and the other with 15 units. Fourteen of these residences have been acquired to date. Therefore, if the project were to move forward with the FSEIS alignment, 82 more residential properties or units would need to be acquired.

The Redesign would acquire and relocate a total of 79 residential units, 46 of which are also within the FSEIS footprint. Twelve of the 14 residential units purchased to date are within the Redesign footprint. Two homes that have been purchased for the FSEIS alignment are not required for the Redesign alignment. The reduction in the total residential unit impact is mainly due to the Redesign mainline shifted to the east just north of the Spokane River. This shift would avoid impact to the 42-unit apartment complex. (The acquisition of the 15-unit apartment complex is common to both alignments.) It also would result, however, in the acquisition of 33 homes on the east side of the former alignment that were not impacted by the FSEIS design. If the project were to move forward with the Redesign alignment, 67 remaining residential properties or units would need to be acquired; 15 fewer than with the FSEIS.

The Venn Diagram below illustrates this comparison, with the overlap showing the residential units that would be impacted by either alignment. The number in parentheses is the number of that group that have already been purchased.



(Numbers in parentheses are how many have been purchased to date.)

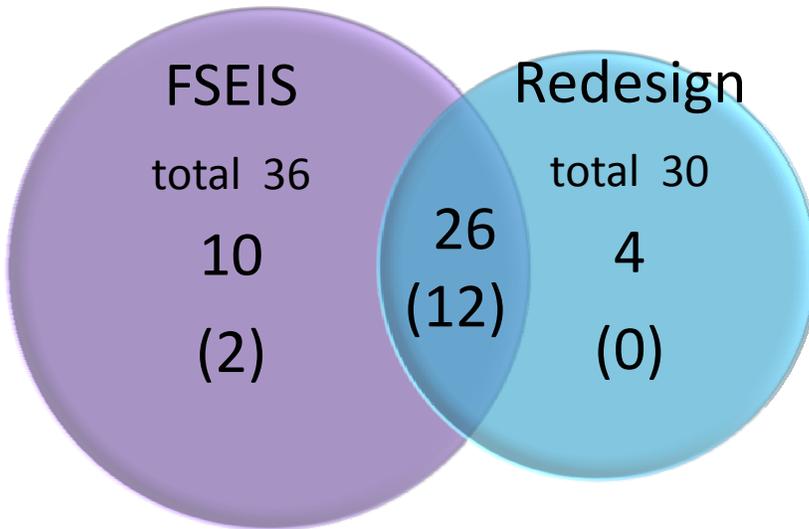
Figure 3.1 Residential Unit Impacts

Business Relocation

The footprint of the Redesign would require relocation of 30 businesses, while the FSEIS would require the relocation of 36 businesses. Fourteen businesses have already been purchased, 12 of which would be needed for the Redesign. Therefore, going forward with the FSEIS alignment would require acquisition of another 22, and the Redesign would require acquisition of another 18. The overall difference is a small decrease in the number of business relocations, and a shift in the location of the impacts. One of the larger employers in the Study Area, Ziggy’s Hardware and Building Supply, has already been purchased, and was included as an impact with both alignments. Other large employers in the Study Area (over 100 employees) are not impacted by either alignment. Four small businesses on the southern portion of Market Street that would be acquired with the FSEIS design would not be acquired in the Redesign. These include a small auto sales lot, auto repair shop, saw repair shop, and a fast-food restaurant. Most of the businesses yet to be acquired with either alignment are small (less than 20 employees each), including automotive and appliance repair shops, equipment and auto sales.

Service providers, such as repair shops, typically do not rely upon drive-by traffic for their business. It is expected that many of the small and medium-sized businesses can be relocated without extensive disruption, or impact to the community. Restaurants and convenience stores do largely depend on drive-by traffic. The FSEIS design would relocate two restaurants, while the Redesign does not relocate any of this type of business.

The Venn Diagram below illustrates this comparison, with the overlap showing the businesses that would be impacted by either alignment. The number in parentheses is the number of that group that have already been purchased.



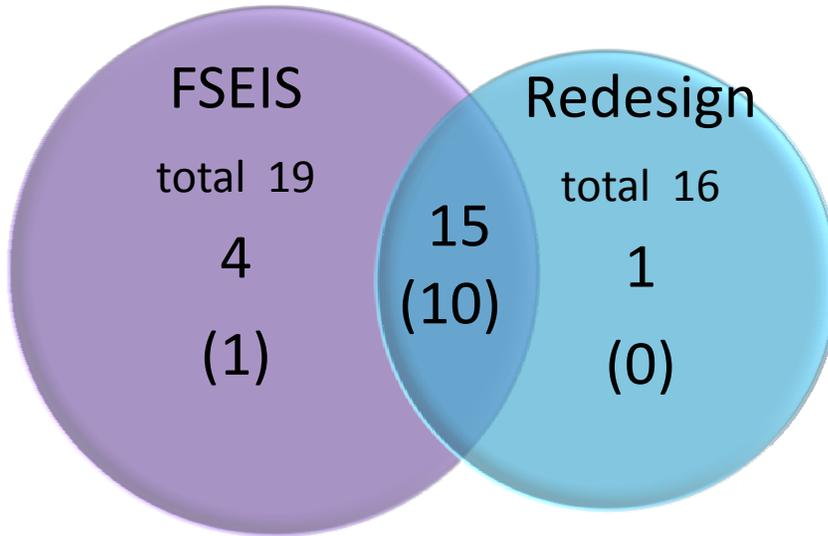
(Numbers in parentheses are how many have been purchased to date.)

Figure 3.2 Business Impacts

Vacant Lots

The Redesign would result in a reduction of three vacant lots to be acquired as compared to the FSEIS, and three fewer lots to be acquired to complete the right-of-way acquisition. One vacant lot that has been purchased for the FSEIS alignment is not required for the Redesign.

The Venn Diagram below illustrates this comparison, with the overlap showing the vacant lots that would be impacted by either alignment. The number in parentheses is the number of that group that have already been purchased.



(Numbers in parentheses are how many have been purchased to date.)

Figure 3.3 Vacant Lot Impacts

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Figure 3.4 Spokane River to Wellesley Avenue

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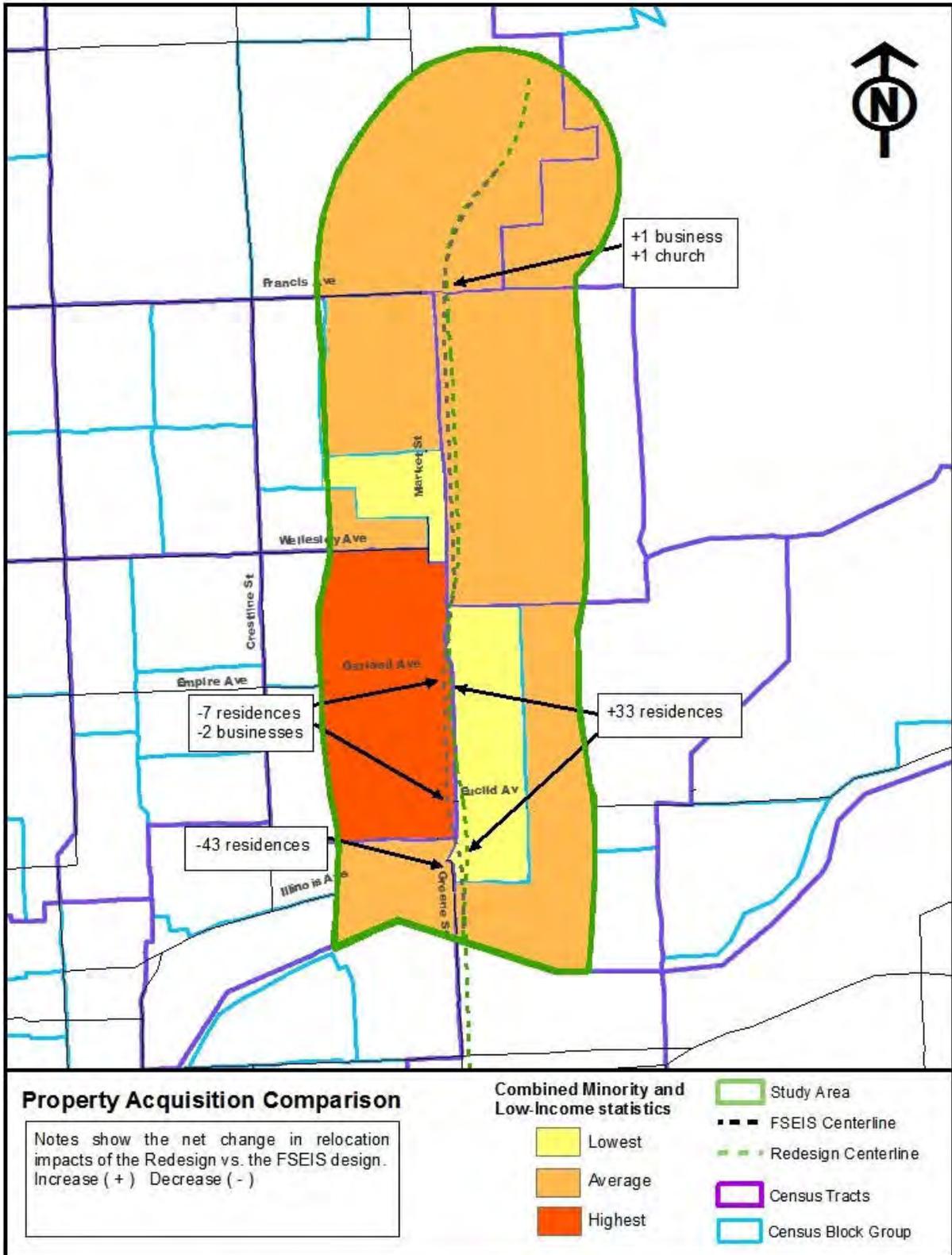


Figure 3.5 Summary of impact differences and locations

Mitigation for Property Acquisition Impacts

Where property impacts are unavoidable, right-of-way will be purchased from land owners in compliance with Uniform Relocation Assistance and Real Property Acquisition Policies. This assures equitable treatment and compensation of those directly affected.

3.1.2 Community Resources

Of the neighborhood community resources described in Chapter 2, only two would be impacted by the NSC. The FSEIS design required the relocation of the Hillyard Center. This impact has not changed in the Redesign. The relocation of this center, with its many community services, is of high concern. The particular location for a new center may be a positive change for some residents and a negative change for others, depending how they currently access the building. WSDOT will work closely with the community to find an agreeable location. This process will be much enhanced by the many contacts and relationships that have been established through the community outreach associated with the Redesign. (Community outreach is detailed in Chapter 4.)

The Living Water Christian Fellowship, on the northeast corner the Francis Avenue/Market Street intersection, would be relocated by the Redesign. At the time of the FSEIS, this building was a restaurant, and was not impacted in the FSEIS design. The Redesign would require acquisition of this entire lot. This church has a congregation of roughly 25-30. The pastor of the church indicated that few of the members live in the neighborhood near the church - most live farther away. Relocation of this church may be a positive change for some members and a negative change for others. This relocation is not seen as having an adverse impact on the larger community.

3.1.3 Noise

Traffic noise impacts have been analyzed for the Redesign between the Spokane River and Wellesley Avenue, where the vertical and horizontal alignment changes are proposed. The analysis, "US Route 395- North Spokane Corridor MP 159 to MP 162, Noise Technical Report, was completed April 2011. The traffic noise analysis for the FSEIS, "Noise Discipline Report for the North Spokane Corridor Project," was completed in April 2000. The noise modeling and analysis determined the minimum wall that meets FHWA noise abatement standards for all qualifying receivers (those meeting Noise Abatement Criteria), as well as the wall size that would result in zero qualifying receivers with unabated noise. Both alignments include noise abatement walls that meet reasonable and feasible criteria and abate noise for all qualifying receivers.

Since traffic noise modeling has advanced and a new modeling program is being used since the FSEIS, and the existing and future traffic inputs as well as the design year

were not comparable between the two analyses, the FSEIS design was remodeled. The updated noise levels and proposed mitigation walls for the FSEIS alignment were then compared to the noise levels and proposed mitigation walls for the Redesign. (See attached Noise Technical Report, and Traffic Noise Comparison Memorandum).

***Decibels (dB)** are the units of measurement for sound. Sound is composed of many frequencies occurring simultaneously. Frequency weighting, which is applied by a sound level meter, combines the sound frequencies into one sound level that simulates how an average person hears sound. The commonly used frequency weighting for environmental noise is A-weighting (**dBA**). The human ear can barely perceive a 3 dBA difference, while a 5 or 6 dBA difference is readily noticeable.*

On the west side of the NSC, between Grace Avenue and Courtland Avenue (where land use changes from residential to commercial/industrial), with either alignment, the minimum wall meets the feasibility requirements but does not meet the reasonable expenditure criteria. Therefore, a wall is not recommended in this area. The resulting decibel level with the Redesign would be 64 dBA, while it would be 60 dBA with the FSEIS. In the area between Spokane River/Upriver Drive and Grace Avenue, all criteria are met and a noise wall is recommended with either alignment. The modeling proposed a 10-foot to 14-foot tall noise wall for the FSEIS alignment, and an 8-foot to 12-foot tall noise wall for the Redesign. With resulting noise level would be equivalent with these conditions for either alignment, at 60 dBA. (See Table 3.2 for full comparison by dBA.)

With the roadway shifted eastward and raised above grade, the noise impacts on the east side with the Redesign are higher than with the FSEIS, especially between Grace Avenue and Empire Avenue. The modeling proposed a 10-foot to 14-foot tall noise wall for the FSEIS alignment between the Spokane River and Grace Avenue. This mitigation would result in a noise level of 56 dBA. Near Grace Avenue, the FSEIS Alignment enters a cut section with retaining walls on either side. To the north of the start of the cut section, the receivers on the east side would not meet NAC.

The results of the modeling lead to a recommendation for a 6-foot to 8-foot tall noise wall for the east side of the Redesign, extending from the Spokane River north to the end of the residential area at Empire Avenue. While the east side noise wall for the Redesign achieved the mitigation in compliance with WSDOT traffic noise policy (2006), it was found to be not as effective when compared to the FSEIS, resulting in more noise impacts remaining after mitigation (63 dBA with the Redesign, 58 dBA with the FSEIS). With the elevated roadway, the noise wall would be on top of the retaining wall along the east side. The maximum wall height that is feasible to construct in this case is 14 feet (in compliance with design standards). Therefore, the noise model was run with a 14-foot tall wall on the east side for the full length. With this size of noise wall, the average noise impacts on the east side for the Redesign

can be reduced, so that the resulting noise level would be 60 dBA. This is within 3 dBA of the FSEIS average noise level in this area, which is not a perceivable difference.

The following table displays the comparison between the alignments with the noise mitigation in place, in terms of the average remaining dBA levels and the average increase over existing noise levels (current conditions). The ultimate height and length of noise abatement walls are determined with public involvement.

Table 3.2 Noise Impact Comparison

	Spokane River to Grace Ave		Grace Ave to Wellesley Ave	
	West Side	East Side	West Side*	East Side**
FSEIS with recommended walls				
Average resulting dBA	60	58	60	56
Average dBA increase over existing noise	3	11	3	6
Redesign with recommended walls				
Average resulting dBA	60	63	64	61
Average dBA increase over existing noise	3	15	6	11
Redesign with maximum beneficial east side walls				
Average resulting dBA	(note 1)	60	(note 2)	58
Average dBA increase over existing noise	(note 1)	12	(note 2)	8

* Noise wall between Grace Ave and Wellesley Ave on the west side does not meet abatement criteria with either alignment, and is not included.

** Noise wall between Grace Ave and Wellesley Ave on the east side does not meet abatement criteria with the FSEIS alignment, and is not included.

Note 1: Since the recommended west side noise wall with the Redesign achieves abatement generally equivalent to the FSEIS, a higher wall is not being compared. Note 2: Since a west side noise wall is not included in either alignment, a higher wall is not being compared.

3.1.4 Visual Quality

The elevation of the Redesign, at grade and on fill, would make the NSC a more prominent landscape feature than the FSEIS alignment in the Hillyard and Minnehaha neighborhoods. The noise walls, described in the preceding section, can be seen as contributing to the visually intrusive character of the new alignment. They can also be considered visual impact mitigation, since they block views of the freeway itself. The proposed noise walls on the east side for the Redesign would be 1260 feet longer than those in the FSEIS design. On the west side, between the Spokane River and Grace Avenue, the noise wall for the Redesign would be 704 feet shorter than those in the FSEIS design. The Visual Quality Analysis for the Redesign concludes that, as

compared to the FSEIS, there would be an overall slight decrease in visual quality (less than 0.50 point difference at common view points).

Ongoing community involvement will guide decisions on visual quality impact mitigation. WSDOT has been working through neighborhood councils to recruit residents to be part of a design focus group. This will be a collaborative effort to develop context-sensitive aesthetic attributes for any project features that will be visible from the adjacent neighborhoods. These include:

- Consistent style and motif themes for the Francis Avenue and Wellesley Avenue corridors
- Landscaping for side slopes adjacent to noise walls, between noise wall and shared use pathway
- Landscaping along shared use path and drainage features, and within the Wellesley Avenue Interchange

3.1.5 Traffic Patterns

The only aspect of the Redesign that would have the potential to revise traffic patterns as compared to the FSEIS is the removal of the slip ramp access to the southbound NSC lanes at the Francis Avenue intersection. The updated traffic model shows these trips being redistributed south to the Wellesley Avenue interchange. The NSC would result in overall reductions on these arterials from current volumes. Compared to the FSEIS, the Redesign without the southbound slip ramp at Francis Avenue would result in a greater reduction of traffic on Francis Avenue, but less of a reduction of traffic on Freya and Haven Streets between Francis Avenue and Wellesley Avenue. This part of Freya Street serves an industrial area. This part of Haven Street is the southbound half of a couplet, through a commercial corridor. No residential neighborhoods or non-motorized travel will be affected by the removal of the slip ramp.

3.1.6 Air Quality

An updated air quality conformity determination was performed, reflecting the proposed horizontal and vertical alignment revisions and the removal the slip ramp discussed in the previous section. The Spokane region is currently in attainment of the National Ambient Air Quality Standards (NAAQS) for carbon monoxide. The analysis demonstrated that the Redesign will not create any violation of the NAAQS for carbon monoxide, and therefore will conform to the State Implementation Plan for air quality.

In addition, a technical evaluation of the potential air quality impacts due to Coarse Particulate Matter (PM₁₀) and Mobile Source Air Toxics (MSAT) was completed. The PM₁₀ analysis concluded that paved road traffic is only a minor contributor to the area's overall PM₁₀ emissions. In addition, heavy truck emissions rates are expected to be much lower by the time these peak traffic volumes occur, and the shifting of

vehicle travel from lower-volume arterial streets to US 395 would reduce road dust emissions rates. Therefore, the US 395 North Spokane Corridor project would not be expected to cause a new violation of the PM10 air quality standards. The MSAT analysis concluded that reductions in MSAT emissions will occur in the project area, regardless of whether the project is constructed.

3.1.7 Neighborhood Connectivity

The neighborhoods in the Study Area grew around the railroad, which has historically formed a physical division through this area. Impacts to community cohesion are not expected, given that the community is accustomed having a transportation corridor in this location. The Redesign does provide better bicycle/pedestrian pathway connectivity than the FSEIS, with additional access points.

Surface Streets

There is not a difference between the alignments in terms of number of local streets that connect across the NSC. The only difference is that Euclid Avenue would cross under the NSC in the Redesign, while it would cross over the NSC in the FSEIS. Wherever surface streets are modified, sidewalks will be improved.

Bicycle/Pedestrian Pathway

The bicycle/pedestrian pathway being constructed along with the NSC provides non-motorized travel connectivity through the Study Area. Between the Spokane River and Wildhorse Park, the Redesign would locate the pathway on the east side of the NSC, adjacent to a residential neighborhood. There would be access to the pathway at each local street crossing in this neighborhood. This would improve access for persons with mobility disabilities. From Wildhorse Park north, there is no change to the pathway alignment from the FSEIS: crossing the corridor on a structure, then continuing north on the west side of the corridor to tie in to the built portion of the trail at the northern project limit.

The Redesign also adds shared-use pathway connections at Francis and Wellesley Avenues, providing improved access from the neighborhoods, as compared to the FSEIS.

3.1.8 Safety

While there is a minor change in trip distribution as discussed in Section 3.1.5, the local arterials are adequate for the traffic volume. Overall, the two alignments are the same in regard to traffic operation and capacity. Emergency services response times would not be affected by the design revision.

A few of the design revisions in the Redesign would provide a safer facility than the FSEIS alignment. With the FSEIS, the mainline would be in a trench from the Spokane River north for approximately two miles. A major safety concern with this design was raised by BNSF, with the rail adjacent to west. A train derailment with this

configuration poses the potential of having a train land on the highway. Another issue with the depressed section of the NSC would be icing in the winter, due to very limited sun exposure.

The revised design of the Euclid Ave/Market Street intersection with the Redesign is improved in terms of safety as compared to the FSEIS. The revised design brings the at-grade rail road crossing close enough to the street intersection to tie the signals. This new signal will include an Early Pre-emptive Detection System, which will prevent vehicles from being stranded on the tracks during a traffic signal change.

3.2 Temporary Effects

Construction is expected to be staged in seven separate, consecutive contracts. These contracts would likely last one to two years each. Depending on available funding, there may be extended periods of dormancy between contracts. Construction can be expected to involve temporary traffic delays, congestion, detours, and increased noise and dust in the vicinity. Most of these impacts are associated with surface street and intersection improvements, which would be included in three of the seven contracts. Properties adjacent to the surface street improvements would likely be impacted by temporary access changes during construction. For example, an access may be gravel instead of pavement for some period of time. These temporary effects are not different with the Redesign as compared to the FSEIS.

3.3 Indirect Effects

Indirect effects are logically expected as a result of a proposal, but have a longer time horizon or happen a longer distance from the physical project. In most aspects, such as land use, surface street connectivity, and community cohesion, there is no difference between the FSEIS and the Redesign in terms of indirect effects. With the Redesign, less of a reduction of traffic volume on Haven Street and Freya Street, in commercial and industrial areas, was modeled as compared with the FSEIS configuration. A potential indirect effect of the changed traffic volume on this arterial may support the neighborhood business corridor.

3.4 Project Benefits

The Redesign would provide for improved non-motorized travel connectivity through the Study Area, due to added access points to the shared use pathway. Several community resources will be accessible from the pathway, including the Centennial Trail, Wildhorse Park, Harmon-ShIPLEY Park, Hillyard Aquatic Center, and the Safeway grocery store and shopping center in Hillyard. The project has also included a modified design around Francis Avenue that accommodates electric golf carts, to assist in implementing the plans of Hillyard Community Futures for an electric golf cart travel zone. These developments are essentially due to the on-going coordination with the community, rather than to differences between the Redesign and the FSEIS.

3.5 Cumulative Impacts

Cumulative effects are those that are generated by the project in combination with other past, present, and logically expected future events, that are not linked to or caused by the project. The cumulative effects for the Redesign would not differ from those of the FSEIS, if either were to be constructed, except for any developments within the project vicinity since the FSEIS.

Since the FSEIS, there have been changes in local land use plans and development regulations. Parts of the Study Area have been zoned to accommodate industrial and commercial development, particularly in the Francis Avenue vicinity. This area is within the Urban Growth Area.

The Greater Morgan Acres Subarea Plan began in 2003 and was adopted in 2005, with the FSEIS alignment included. This neighborhood is in Spokane County immediately north of Francis Avenue, but also includes a strip a few blocks wide lying between Francis and Wellesley Avenues, east of Havana. The segment of the NSC through this neighborhood has been constructed, and is not affected by the Redesign proposal. Morgan Acres has maintained low-density residential zoning to the west of Market Street, but rezoned to industrial to the east of Market, surrounding the NSC/Freya Avenue Interchange.

The Bigelow Gulch Road Urban Connector is a project in Spokane County that has been planned for many years. Construction of the first segment, which connects to Francis Avenue approximately one-half mile east of the NSC, has begun since the FSEIS. There is potential for increased industrial and commercial development in the area along Francis Avenue immediately east of the NSC, within the City of Spokane, due to the improved roadway connection. This area has light industrial zoning. Together, the NSC and the County's Bigelow Gulch project would be expected to have compounded influence for commercial/industrial development within this part of the City of Spokane as well as the adjacent County area that lies within the Greater Morgan Acres Subarea, between Francis Avenue and Wellesley Avenue, east of the NSC. Further to the east, Spokane County has designated areas along the Bigelow Gulch Road alignment further to the east, as rural residential, with limited development potential. The Bigelow Gulch project was included in the regional traffic model. There would be no difference in traffic volume and emissions with the Redesign as compared to the FSEIS resulting from this connection.

The Hillyard Downtown Revitalization Project includes the 2009 reconstruction of Market Street. The community is building upon these improvements to develop a more walkable community as well as economic growth. Included in the NSC Redesign are enhancements that support these goals, by improving connectivity for all modes on Wellesley and Francis Avenues, constructing a 11-foot wide concrete pathway on the south side of the Francis Avenue structure, including a shared use pathway connection through the Wellesley Avenue interchange, as well as the visual mitigation listed in section 3.1.4 Visual Quality. The reconstruction of Wellesley Avenue will correct the currently substandard travel lane width,

height clearance, and sidewalk provision. This segment of the NSC also supports Hillyard's economic recovery efforts, with the reconfigured rail access and new freeway access to industrial properties.

3.6 Environmental Justice Determination

The Study Area defined for the NSC contains low income and minority populations. When comparing the FSEIS design to the proposed Redesign, these demographic groups will not disproportionately bear negative impacts associated with the design changes. This analysis indicates that minority populations and low income populations will not experience the adverse effects more severely than other populations as a result of the proposed project. The Redesign alignment would have an overall reduction in the dislocation effects on the adjacent communities. Meanwhile, the areas with the lowest percentages of minority populations and low-income populations are the areas where the number of residential property acquisitions is increased, and noise impacts are increased, as compared to the FSEIS. The NSC will provide benefits which are distributed throughout the communities in the area without prejudice. The outreach for public involvement has been extensive, particularly in providing translated materials and using community-based outlets for invitations and newsletters.

4.0 Public Involvement

Public involvement is a critical to the social and environmental justice components of WSDOT projects. Engaging all elements of an affected community helps identify project impacts so appropriate avoidance or mitigation can be planned. This chapter describes the public involvement that has taken place and is on-going for the Redesign.

4.1 Public Involvement Since the FSEIS

WSDOT has hosted 16 open houses since 2000 at various locations along the NSC. More than 1,300 people have attended throughout the years. Three of the Open Houses were held within the Redesign Study Area: two at the Northeast Community Center, and one at Arlington Elementary School. At least twice a year, WSDOT mails newsletters providing project updates directly to all residences and businesses within roughly $\frac{3}{4}$ - mile of the proposed NSC centerline. All people who sign in at open houses are added to the mailing list, as well as any others who request to be added. A project website has been created and is updated regularly. This site has a link for questions and comments to be submitted.

4.2 Community Outreach

The Redesign was incorporated into the public outreach efforts as early as October 2008. By Spring 2009, regular meetings were established with stakeholders within the project area. Project design staff meets monthly with Hillyard neighborhood representatives, often attending the regular neighborhood council meetings. WSDOT also continues to coordinate with the Greater Hillyard Business Association, BNSF, and the City of Spokane.

As public involvement continued, WSDOT staff contacted community services, local businesses and churches in, and beyond, the Study Area. Visits to the community centers, non-English language newspaper publishers, and ethnic food markets, for instance, established contacts with individuals who are involved with the local populations, and excellent sources of information about the characteristics of the populations. These contacts were also valuable in helping to distribute information to the community. Affected persons may be more comfortable requesting information through these contacts, and the community services could pass on questions and concerns to WSDOT. **Table 4.1** lists the organizations and how they assisted in facilitating effective community outreach. Outreach was designed to contact possible linguistically-isolated communities within the Study Area, and to ensure that all people in the Study Area had the opportunity to access information and participate in the project development process.

Census data showed two Census Block Groups meeting the threshold for LEP, in indo-European languages other than Spanish. Community contacts, particularly the school district and Community College, indicated that the most prevalent such language is Russian. Data shows other languages represented, although not meeting the threshold for LEP. With input from various community services (see Table 4.1), WSDOT provided printed material in Marshallese, Spanish, and Vietnamese, as well as Russian, and distributed these through the community contacts and foreign language newspapers. The translated Open House announcements stated that, upon request, a translator would be present at the public meeting. The community contacts provided many potential liaisons for such requests as well. There were no requests for translation services.

Three Open House meetings were held in 2010. In May and June 2010, the Open Houses were from 5:00 p.m. to 8:00 p.m. with a casual format, allowing people the flexibility to drop in when able. People could mingle and look at large map displays featuring the project overlaid onto aerial photography. WSDOT personnel were available to answer questions as needed. The May 25, 2010 Open House was held at the East Central Community Center. A newsletter containing the open house announcement was sent to all residences and businesses between Crestline and Havana Streets, Francis Avenue, and the Spokane River. This encompasses the entire Study Area. An advertisement was placed in the *Spokesman Review*, the newspaper with widest local circulation. Of the attendees, 147 people chose to sign in. Four people requested additional information on the comment cards provided. The June 24, 2010 Open House was held at the Northeast Community Center, which is located in a part of the Study Area with a population that has comparatively less access to vehicles, and comparatively higher percentages of low income residents and minority populations, per the Census data. The community center is easily accessible by transit and is known by local residents. A post card with the open house announcement was sent to all residences and businesses within the Study Area. An advertisement was also placed in the *Spokesman Review*. Of the attendees, 122 people chose to sign in. Five people requested additional information on the comment cards provided.

WSDOT hosted a booth at the Hillyard Festival August 5-7, 2011, at Harmon Park, adjacent to the project. This festival is a significant neighborhood event which has a 100-year history. Project information and displays describing the design in detail were presented to the public. As the Redesign alignment design developed, it was clear that one of the main differences from the FSEIS design would be the shift of the NSC mainline eastward between Garnet and Euclid Avenues. Therefore, on October 5, 2010, WSDOT hosted a meeting specifically for this immediate neighborhood, to focus on the specific concerns for these residents. Sign-in sheets show 15 people attended this meeting. A Public Meeting and Open House was held on October 27, 2010 at Rogers High School, which is close to the residential area with the proposed new relocation impacts. A newsletter announcing the public meeting and showing the new impact area was sent to all residences and businesses in area between Regal and Freya Streets, Garland Avenue, and the Spokane River. An advertisement was also placed in the *Spokesman Review*. In addition to these notices, WSDOT personnel canvassed the homes fronting Ralph Street and between Ralph Street and the railroad tracks, from Garnet Avenue to Grace Avenue, with the goal of making personal contact with residents and ensure that they were aware of the project changes and the upcoming public meeting. Direct contact was made with roughly one-third of the households that would be relocated due to the alignment shift. At homes where no one answered, the newsletter was left in a visible location. Of the attendees, 84 people chose to sign in. Nine people requested additional information on the comment cards provided.

Table 4.1 Community Contacts

Organization	Services Provided	Project Outreach
Northeast Community Center	Neighborhood social service access point	Outlet for printed materials in 5 languages. Open House site.
East Central Community Center	Neighborhood social service access point	Outlet for printed materials in 5 languages. Open House site.
Spokane Community College	Institute for Extended Learning, Adult Basic Education, Head Start, ESL	Provided information about prevalent languages and population characteristics. Outlet for printed materials.
Hillyard Center Head Start	Child care for low-income families	WSDOT staff attended parent meeting. Outlet for printed materials, and invitations to Open Houses during other events.
Spokane School District 81	Public education, ELD	Provided information about prevalent languages, and about other community contacts. Outlet for printed materials.
Spokane Neighborhood Action Program	Resource connections for low income residents	Provided information about community contacts and newspapers.
N.A.T.I.V.E. Health	Clinic focusing on Native American health/social issues	Outlet for printed materials.
Spokane Tribe T.A.N.F	Spokane Tribe Temporary Assistance for Needy Families	Mailed printed materials out with their newsletter.
World Relief International	Refugee placement and social services	Provided contacts for foreign language newspaper.
Russian Spokane	Russian language newspaper	Published translated open house invitations, provided information on community contacts.
Bilingual Press	Spanish newspaper	Published translated open house invitations.
St. Joseph's Catholic Church	Spanish language church service	Outlet for translated printed materials.
St. Anthony's Catholic Church	Vietnamese language church service	Outlet for translated printed materials.
St. Patrick's Catholic Church	Vietnamese language church service	Outlet for translated printed materials.
Kiev Markets (2)	Russian/Ukrainian markets	Outlet for translated printed materials.
Mauripol/Euroworld	Russian/Ukrainian market	Outlet for translated printed materials.
De Leon Foods	Latino market	Outlet for translated printed materials.
El Mercado del Pueblo	Latino market	Outlet for translated printed materials.
Bay Oriental Market	Vietnamese market	Outlet for translated printed materials.

4.3 Tribal Consultation

Native Americans are a minority population, as well as being members of tribes. WSDOT consults with tribes, in recognition of their sovereignty and as part of efforts to protect cultural and historic resources. WSDOT is engaged in current and ongoing consultation with the tribes in the area: Coeur d'Alene Tribe, Colville Confederated Tribes, and the Spokane Tribe of Indians. In compliance with the Section 106 process, tribes are consulted as the Area of Potential Effect is defined, and when the cultural resources survey is reviewed. The most recent cultural resources survey was sent to the tribes on December 3, 2010. The Spokane Tribe concurred with the APE and report findings. No comments were received from the other tribes. No concerns have been raised regarding Native American residents in the Study Area.

4.4 Response to Public Involvement

As a result of the various input received from the public and stakeholders, WSDOT has incorporated new design elements into the Redesign, and is considering others.

The Minnehaha Neighborhood Council and the Hillyard Neighborhood Council pointed out additional connection points for the bicycle/pedestrian pathway near Francis and Wellesley Avenues, which have been added to the project. A new connecting shared-use pathway was also suggested for the crossing at Francis Avenue, and is being considered.

Residents in the Minnehaha neighborhood expressed concerns about the how the surface street termini immediately east of the proposed NSC, in the four blocks north of Euclid Avenue, would be treated. WSDOT is continuing to coordinate with these residents as well as the City of Spokane to identify an acceptable and safe design.

The Hillyard Business Council and the Greater Hillyard Business Association have requested that the streetscape elements that have been used in the Hillyard Market Street Revitalization Project, be matched on Francis and Wellesley Avenues. The intent is to create a common aesthetic appearance that will identify the area as being part of the Hillyard neighborhood. WSDOT is evaluating this and will continue to coordinate with the neighborhood and the City of Spokane on this concept.

The Hillyard Neighborhood Council requested that an additional structure be provided to create a separated-grade, non-motorized pathway crossing of the NSC between Wellesley and Francis Avenues to connect the east and the west sides of Hillyard. Acquisition of additional property from BNSF would be necessary for this structure. WSDOT has committed to partner in the construction of this crossing, if the neighborhood can obtain an agreement with BSNF that secures the necessary property.

5.0 Summary of Effects

The Redesign footprint would displace fewer residences and businesses than the FSEIS, but it would displace the residential area to the east of the NSC that had not been directly affected by the FSEIS. The Redesign will require larger noise barriers to mitigate traffic noise, and the remaining impacts will be higher in this same residential area. These new residential displacement impacts and higher traffic noise impacts are located in the part of the Study Area that has relatively lower percentages of low-income populations and of minority populations. The Redesign would also result in fewer businesses displacements than the FSEIS. Public outreach has been geared to assuring that the residents and businesses in the areas of impact are aware of the proposed changes, and of opportunities to be involved in the process. Neighborhood groups and other stakeholders have been involved in the proposed design change process. Meanwhile, the Redesign would result in improved local access to the pedestrian/bicycle path throughout the Study Area, improved safety on the NSC as well as local streets.

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