

Impacts of West Avoidance Alternative

Recreation

Within the area of the western avoidance route there are four recreational facilities, two of which — Esmeralda Golf Course and Minnehaha Park — are the purpose of this report. The remaining two facilities are Cooper School and Wild Horse Park.

Cooper Elementary School is in school District 81 and is located on the west side of Freya Street between Euclid and Bridgeport Avenues. The school has two softball fields, four outdoor basketball courts, and playground equipment. Public use of these facilities are not restricted. The western avoidance route passes between the school and the southwest corner of Esmeralda Golf Course. Preliminary plans produced for this study indicate the freeway right of way would not encroach upon the school grounds. However, the close proximity of the freeway to the educational facility is projected to increase noise levels from the existing 65 dBA to approximately 75 dBA without mitigation. With noise barriers the level around the school property would be expected to be similar to the Minnehaha Park area (with the Havana Alternative) at approximately 63-65 dBA.

Property Values

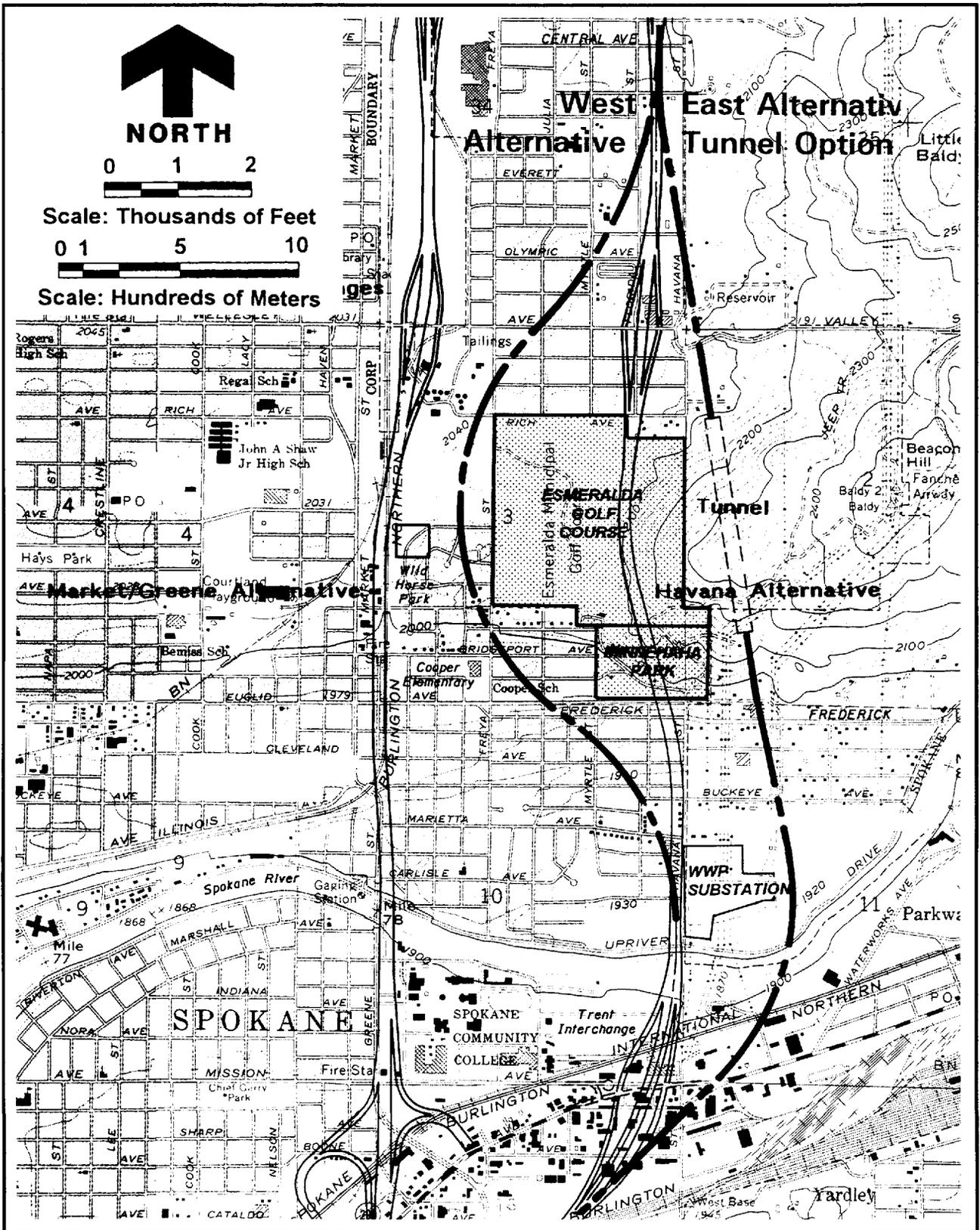
The area affected by the western avoidance alternative consists mainly of residential properties. Due to short-term construction related impacts (from noise, air contaminants, and visual quality), a slight decline in developed property values could occur in the immediate vicinity of the project. It is not anticipated that these impacts would have a long-term effect on these property values.

Disruptions in Community Character

The western route, as seen in Figure 6-6, divides the Cooper Neighborhood and substantially alters its present configuration. The elevated roadway between Upriver Drive and Bridgeport Avenue would be a physical barrier that could be seen for many blocks. The impact to the area would be even more substantial due to the geometrics involved with the route.

After the freeway crosses the Spokane River, it begins to climb north and west up a slight hillside located north of the river. It transitions from a large fill section to a deep cut section as it enters the hill. The fill section at its highest point would be approximately 12.2 meters (40 feet) deep, requiring large amounts of right of way on either side of the roadway. The same would apply to the cut section, to a lesser degree.

Other disruptions could include utility relocations and temporary service shut-off, and temporary traffic detours and restrictions. Access across the freeway would be permanently limited to Frederick Avenue and Freya Street.



Market/Greene (Preferred Alternative) /Havana Avoidance Alternatives 4(f)
Figure 6-6

Displacements and Relocation Assistance

The total relocation estimate for the Havana Alternative, from I-90 to the North/South Option split, using the proposed route, is estimated to be about 230 homes. Of the 230 relocated homes, 64 are located in the Minnehaha/Esmeralda area. Displacements attributed to the western avoidance route alone, as identified from a 1"=200' aerial map, would total approximately 355 to 380 dwelling units. The western avoidance alternative would cause over five times as many relocations as the similar section of the proposed Havana route.

No businesses are affected by the west avoidance route.

Visual Quality

The entire area surrounding the western avoidance alternative route would be severely affected by the visual impacts of construction, as well as operation. From Upriver Drive to the intersection of Freya Street and Garnet Avenue, the roadway would be a fill section as high as 12.2 meters (40 feet). Glare from potential night operations would also be disruptive to community activities and the residential atmosphere of the area.

Conclusion

This alternative is inconsistent with the Neighborhood Design Plan; it would most likely cause proximity impacts to two additional 4(f) properties; it would substantially divide the Cooper neighborhood; it would create severe visual impacts; and it would cause over five times as many displacements and relocations as the comparable section of the proposed Havana Alternative. It is feasible from an engineering and construction viewpoint. However, this alternative is not prudent because of the extraordinary community disruption that would result.

East Avoidance Alternative-Tunnel/Cut and Cover Option

This alternative crosses the Spokane River and passes east of the Washington Water Power substation on the northeast corner of Upriver Drive and Havana Street (see Figure 6-6). Traveling north, the freeway passes over Frederick Avenue and begins to climb the south side of Beacon Hill. Approximately 380 meters (1250 feet) beyond Frederick Avenue, the freeway enters a tunnel through Beacon Hill. The method of construction would be either by boring through the hill or by open excavation followed by construction of a lid over the top (cut and cover).

Preliminary design efforts did examine a facility built on the tunnel alignment without the use of a tunnel. It would follow the basic lay of the land with cuts and fill sections where required. This alternative was dropped because an acceptable vertical grade was not attainable. Grades meeting the minimum design standards of 6% could not be maintained without very large cuts and fills.

This tunnel, approximately 910 meters (3000 feet) long, traverses through Beacon Hill and exits on its north side. Approximately 400 meters (1300 feet) from the northern end of the tunnel, the freeway would cross Wellesley Avenue. A diamond interchange would be located at this point. Beyond Wellesley, the freeway would connect to the proposed Havana Alternative alignment in the vicinity of Central Avenue.

Impacts of the East Avoidance Alternative

Parks

Minnehaha Park is the only park within the east avoidance tunnel alternative. Noise levels and air quality would be within Federal standards.

There would be some loss of visual quality as park users look to the east but this would not be expected to impact park utilization.

Recreation

Minnehaha Park and Esmeralda Golf Course are the only existing recreational facilities near the eastern avoidance route. Neither of the two existing facilities would be directly affected by the tunnel option. Both would experience noise levels and air quality within Federal standards. Temporary disruptions of activities on and around Beacon Hill such as trail bike riding and hiking would be experienced during construction. Once the tunnel is complete, access around the hill for these type of activities would be expected to be similar to what currently exists.

Property Values

The area affected by the eastern avoidance alternative consists mainly of open fields, with some scattered residences in the southern area to Frederick Avenue. North of Frederick, the route encounters Beacon Hill, a mainly wooded, rocky, and undeveloped area. Due to short-term construction-related impacts from noise, air contaminants, and visual quality, a slight decline in developed property values could result in the immediate vicinity of the project. It is not anticipated that these impacts would have a long-term effect.

Disruptions in Community Character

The eastern side of the southeast Hillyard neighborhood may experience a slight decline in visual quality. For the most part, the area would experience little change in character due to this route's location.

Displacements and Relocation Assistance

Displacements in the area of the eastern avoidance route, as identified from a project aerial map, would total approximately 32 to 35 dwelling units, compared to the 64 that would be taken out by the proposed alternative. This would be a reduction of about 50 percent.

No businesses are affected by the east avoidance route.

Visual Quality

The east side of the southeast Hillyard neighborhood has minor views to the east across Havana Street. Approximately one third of that view is obscured by the existing Washington Water Power substation at the northeast corner of Upriver Drive and Havana Street. East of Havana, visual components consist of scattered homes amid open, uncultivated fields.

Impacts on visual quality would be primarily on the southern side of Beacon Hill, where large amounts of fill would be required in the transition to the hill and the tunnel approach. The northern end of the tunnel just south of Wellesley Avenue

would, for the most part, be obscured by the natural geography of the hillside. Visual impacts would be minimal.

Cost

The additional cost of building a tunnel/cut and cover was estimated at \$375 million — about 35 percent of the total estimated cost of the entire project — based on 1994 dollars for the proposed alternatives.

Conceptual estimates were formulated to compare the cost of the tunnel option vs. the proposal impacting Minnehaha Park and the Esmeralda Golf Course. The cost of building the 8-lane roadway section, on the vertical alignment required for each option, from Trent Ave. interchange to Wellesley Ave. interchange was considered the same. A cursory look at the terrain and anticipated cuts and fills and the length of each route revealed little difference. This left the construction costs of the tunnel and the mitigation costs for the park and the golf course as the main differences.

The highest mitigation costs would occur if the golf course was replaced. The cost to replace this type of course is approximately 5 million dollars. If replacement did occur, the cost difference is still significant enough where the tunnel as an alternative would not be prudent. Mitigation costs for the park aren't available at this time. It is expected these costs would be minimal because the area underneath the bridge structures will be open.

Conclusion

This alternative would result in displacement of 50 percent less residences than the comparable section of the proposed Havana route. Other visual and community impacts would be similar or less. Although the route is considered feasible, it is not considered to be prudent due to the extraordinary costs involved with construction of the tunnel.

Your Place Park

The I-90 Collector/Distributor corridor widening would extend the freeway width north and south of its present location to accommodate the addition of a proposed Collector/Distributor system. The freeway right of way line will jog around Your Place Park, so the city of Spokane will still own the newly configured park upon completion of construction (see Figure 6-4).

This right of way would encroach upon Your Place Park, located on the northwest corner of 2nd Avenue and Cook Street. However, the park will be only partially impacted by the freeway structure. The park currently extends approximately 46 meters (150 feet) from 2nd Avenue to the alley on its north side between 2nd Avenue and Pacific Avenue. It is approximately 37 meters (120 feet) wide, with a total area of approximately 1672 square meters (18,000 square feet).

There are two basic avoidance alternatives that would maintain Your Place Park in its present location with no direct impacts: a shift in the freeway alignment and a combination of design changes, including some that deviate from current design standards. These alternatives are discussed below.

Avoidance By Roadway Alignment Shift

One option considered to avoid Your Place Park was to shift the entire freeway footprint far enough south of the proposed alignment to avoid the park. In addition to requiring relocation of existing and proposed lanes, this alternative would require modifying some existing ramps on the Liberty Park Interchange.

The greatest consequence of an alignment shift would be the impact to the U.S. West Keystone Telephone Exchange Central Office, located at 2012 E. Third. This facility is a central point for all switching for 35,000 customers; all cables converge here. Relocation costs for the Keystone Exchange are estimated to be as high as \$40 million. While the Roadway Alignment Shift alternative would be feasible to construct, the huge increase in relocation costs and impacts **is not considered prudent.**

Avoidance By Design Reductions

The proposed I-90 C/D design would encroach approximately 14.6 meters (48 feet) into Your Place Park.

In order to completely avoid impacts to Your Place Park, and at the same time avoid any alignment shifts, the westbound cross section of the freeway would need to be reduced a minimum of 14.6 meters (48 feet). This distance is where the approximate edge of the freeway structure or edge of pavement (as identified on preliminary design drawings) would meet the southern boundary of Your Place Park.

Two options, in combination, were identified to accomplish this:

Reduced Median Width

To avoid encroachment into the park, the median area between the mainline and collector/distributor lanes was analyzed for possible reduction.

Based on current design standards, the median width between C/D and mainline lanes on the proposed alternative would be 13.4 meters (44 feet). This consists of two 3.0 meter (10 foot) shoulders on each side of a 3.7 meter (12 foot) strip for median barrier, and a 3.7 meter (12 foot) future HOV lane.

To minimize the required median area, the median barrier strip could be reduced to 0.6 meter (2 feet) to accommodate the physical barrier, reducing park impact by 3.0 meters (10 feet). This reduction could possibly result in a lack of storage space for snowplowing activities during the winter months. This, in turn, could result in a lack of interior emergency parking, particularly if the 3.0 meter (10 foot) inside shoulder was being used for snow storage.

In addition to reducing the barrier strip, dropping the future 3.7 meter (12 foot) HOV lane would result in an accumulated reduced impact to the park of 6.6 meters (22 feet). This would reduce the impact to the park from 14.6 meters (48 feet) to a total of 8 meters (26 feet).

Lane Reduction

The second option would be to reduce the number of lanes located within the roadway cross section adjacent to Your Place Park, in addition to the reduced median.

The proposed design would place a ramp acceleration taper from the southbound NSF to the westbound I-90 ramp over the park. To alleviate the problem of encroachment of the acceleration taper from the ramp, the interchange lane balance could be revised from a 4-3-4 configuration to a 4-2-4 configuration.

Currently, the proposed design configuration (4-3-4) shows four C/D lanes approaching the NSF interchange from the east. At the NSF interchange, the right lane would taper off and be dropped to the northbound NSF ramp. The remaining three lanes continue westward through the interchange area until they once again pick up a fourth lane from the southbound NSF ramp. This southbound ramp merges as two lanes, one of which is dropped, using the standard acceleration taper lane design. For the acceleration lane distance the C/D would actually be five lanes wide. This acceleration lane width encroaches onto Your Place Park.

With a 4-2-4 interchange configuration, four lanes would approach the interchange westbound. At the interchange, the two right lanes would drop to become the ramp to the NSF northbound. The remaining two lanes would continue westbound through the interchange area until they pick up the two southbound NSF to westbound I-90 lanes on the interchange’s west side. These two lanes would not require a taper, as they would serve as “add” lanes paralleling the two through lanes. With this design, no auxiliary lane or taper would be required, as in a two lane on connection that drops one lane. However, by revising the interchange balance, there may still be a Level of Service problem in the interchange area.

A 4-2-4 configuration would reduce the impact to the park from 14.6 meters (48 feet) to a total of 6.6 meters (22 feet).

Combined with the reduced median width savings of 6.6 meters (22 feet), the total savings to Your Place Park would be 15 meters (48 feet), which would put the freeway edge of pavement directly on the approximate southern boundary of the park.

Design Reduction	Amount of Impact Reduction* Meters (Ft.)	Accum. Amount Meters (Ft.)	Amount of Encroachment Meters (Ft.)
Proposed Alternative			14.6 (48)
Reduced Median Width	6.6 (22)	6.6 (22)	8 (26)
Lane Reduction	8.0 (26)	14.6 (48)	0
*Compared to the proposed alternative impact of approximately 14.6 meters (48 feet of encroachment.)			

Summary of Your Place Park Design Reduction Avoidance Alternative
Table 6-1

Conclusion

The combination of these avoidance options would be feasible to construct from a cost or community disruption perspective. By reducing the median width and the number of lanes that cross the park, direct impacts to Your Place Park could be completely mitigated. However, when compared to the proposed alternative, these measures are considered detrimental to long-term service in the interchange area on I-90, compromising safety and traffic flow. In consideration of the park expansion and improvement planned as part of the proposed project, selection of this combination of options is not considered prudent.

Measures to Minimize Harm

Minnehaha Park

During Operation

Noise barriers would be constructed along the west side of the bridge structure as it traverses the park property. Possible expansion to the east of the existing developed portion of the park will be considered to replace any loss of park property. Actual mitigation will be finalized and will be dependent upon the preferred alternative selected.

Designation of Alternative 6, the Market/Greene build alternative as the preferred alternative is considered an avoidance alternative to the use of Section 4(f) property. No further coordination or plans to minimize harm are necessary.

Esmeralda Golf Course

During Operation

Several feasible options have been discussed with city park officials for mitigating the impacts to the golf course facilities. Options include down sizing the existing course to nine holes, restructuring the course to allow 18 hole play, or at worst, closing it and building a new course elsewhere. Actual mitigation will be finalized and will be dependent upon the preferred alternative selected.

Designation of Alternative 6, the Market/Greene build alternative as the preferred alternative, is considered an avoidance alternative to the use of Section 4(f) property. No further coordination or plans to minimize harm are necessary.

Your Place Park

To compensate for the loss of approximately 500 square meters of park land, the remaining park would be expanded approximately 44.5 meters (180 feet) to the west. The overall size of the park will be increased by about 1171 square meters (11,530 square feet). Park facilities would be reconfigured including construction of a retaining wall, which will also serve to mitigate noise impacts, and screening along that wall.

During Operation

Direct vehicle access to the park from the south, currently via 2nd Avenue, will no longer be available. The park reconstruction, together with the proposed trail system

along the north side of the C/D, will help maintain and improve non-vehicular access from the surrounding neighborhood. The noise wall proposed along the C/D system will maintain noise levels within federal standards. The City of Spokane Parks Department and WSDOT have also agreed to landscaping along the retaining wall that delineates the reconfigured park boundary.

During Construction (all Build Alternatives)

Construction activities would result in temporary visual, noise, air, and access impacts. Construction impacts resulting from any of the proposals would be short-term and limited to the areas adjacent to the highway right of way. None of these temporary impacts would substantially impair the functions, activities, or qualities of these sites. Mitigation of these impacts would be common to all affected properties.

Temporary facilities will be constructed as determined necessary by park department plans and needs.

Due to the temporary nature of construction, no special measures are proposed for mitigation of construction related visual impacts.

To reduce temporary noise impacts associated with construction, the contractor would be required to comply with all federal, state, and local regulations relating to construction noise. The following measures would be incorporated into contract specifications to help reduce the effects of construction noise:

- All equipment would have sound control devices no less effective than those provided on the original equipment.
- As directed by WSDOT, the contractor would implement appropriate additional noise mitigation measures, possibly including changing the location of stationary construction equipment, shutting off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, or installing acoustic barriers around stationary construction noise sources.

Most air quality impacts are expected to be from dust, other particulate matter, and hydrocarbons caused by increased truck and heavy machinery traffic, removal and/or placement of materials, and paving operations.

Construction contractors would be required to comply with Spokane County Air Pollution Control Authority (SCAPCA) regulations to minimize air quality impacts associated with construction. Construction impacts would be reduced by incorporating mitigation measures into the construction specifications for the project.

Some of the control measures that would be used to reduce particulate pollution caused by construction are sweeping, watering, traffic control, and use of well-maintained equipment. Surface streets would be maintained free of dirt, rocks, and debris from construction activities. Since construction is only a temporary condition, no other measures would be employed to control emissions.

Access impacts can be mitigated by identifying potential access points and alternative routes (i.e., bikeway, walking, vehicular routes, and major arterials), and designating routes to be used during construction. If use of existing routes is not

possible, acceptable alternative routes would be developed for use during construction. Temporary facilities will be constructed as determined necessary by the City of Spokane Park Department's plans and needs.

Coordination With Other Agencies

A meeting with the City of Spokane Parks and Recreation Department (Parks) was held on March 13, 1993 to discuss impacts to park properties. The purpose of the meeting was to bring them up to date on the projects status and to discuss specific impacts to their properties. The focus was on the Havana Alternative and centered around the issues dealing with Minnehaha Park and Esmeralda Golf Course. Avoidance alternatives were outlined coupled with measures that could be taken to minimize harm to the park properties.

The Park Department Staff voiced concern over the Havana Alternative and the impacts on their properties. However they did agree that the selection of the preferred alternative is key to future discussions and further planning and mitigation efforts. Once the selection is made follow-up meetings will take place to develop an agreed upon mitigation plan for the impacted properties.

~~The Department of Interior (DOI) Regional Office was contacted to determine its need and timing of document review. The DOI elected to delay its review until receipt of the DEIS.~~

Coordination with the City of Spokane Parks has continued since publication of the DEIS and has recently focused on mitigation necessary for construction and operation of the facility along the preferred alternative alignment. Appendix L contains the Parks Board and Staff written responses to the DEIS. The commitment file, made a part of the summary of this FEIS, (see Vol. I), contains the mitigative measures agreed upon between WSDOT and the Parks Department. Coordination with Parks in an effort to protect 4 (f) properties will continue throughout the design, right-of-way, construction, and operation phases.

4(f) Determination

No Feasible and Prudent Alternatives

Designation of Alternative 6, building a new facility along Market/Greene as the preferred alternative including construction of the I-90 collector/distributor and the North Option connection to US 395, avoids use of Minnehaha Park and the city owned Esmeralda Golf course. The need to use Your Place Park is common to all build alternatives and this use is unavoidable. This is the only 4(f) impact associated with the preferred alternative. Alternative 6 is the least damaging alternative to 4(f) resources.

Demonstration that "there are unique problems or unusual factors involved in the use of alternatives that avoid these properties (this property) or that the cost, social, economic, and environmental impacts, or community disruption resulting from such alternatives reach extraordinary magnitudes" (23 CFR 771.135(a) (2)) has been accomplished and is summarized: The feasible avoidance through a roadway alignment shift is not considered prudent due to the estimated \$40 million cost of relocating the Keystone Exchange. It is not considered prudent to make reductions to design standards by decreasing the median width and reducing the number of

lanes. Reductions to the standards would result in compromised safety and traffic flow and elimination of a future high occupancy vehicle lane.

Preferred Alternative Minimizes Harm

The planned mitigation, which was coordinated with Spokane County Parks and Recreation, for needed land at Your Place Park to construct the collector/distributor provides for an increase in park space of about 1170 square meters, landscaped screening and a retaining wall. It is reasonable to conclude that Your Place Park will with this mitigation be a better facility than under a No Build Alternative. The preferred alternative minimizes harm to this Section 4(f) property.

Coordination with the Department of Interior

The Department of Interior (DOI) Regional Office was contacted to determine its need and timing of document review. The DOI elected to delay its review until receipt of the DEIS. Their review is contained in Appendix L. In their review the DOI referenced Appendix C of the DEIS and noted “impacts” that need to be addressed in this Final Section 4(f) Evaluation. Coordination with the city of Spokane Parks and Recreation Department is the formal addressing of such impacts (see the following section).

Coordination with Spokane Parks and Recreation

The city of Spokane Parks and Recreation Department (Parks) has coordinated with WSDOT in an effort to avoid unnecessary use of city recreational properties and to minimize harm to the unavoidable use Section 4(f) land.. Appendix L, contains the Park’s comments to the DEIS with WSDOT’s response being a coordinated response with agreement having been reached by the two parties. The commitment file of the FEIS contains commitments stemming from this coordination that will protect and enhance city owned Section 4(f) property in the vicinity of the preferred alternative.

Conclusion

Based upon the above considerations, there is no feasible and prudent alternative to the use of land from Your Place Park and the proposed action includes all possible planning to minimize harm to Your Place Park resulting from such use.