

APPENDIX B

Categorical Exclusion



CATEGORICAL EXCLUSION DOCUMENTATION FORM

Project Name: Tudor Road/Lake Otis Parkway Intersection
Project Number (state/federal): 58890 / HPRL - 0001(359)

Date: October 11, 2007

I. Purpose of Project

This project is listed under projects for which the funding priority is undetermined in the Municipality of Anchorage's (MOA) *2025 Long-Range Transportation Plan (LRTP)*. The intersection of Tudor Road and Lake Otis Parkway is the junction of two arterial roadways that are operating over capacity with resulting delay and congestion (Figure 1). The proposed project will reduce congestion and intersection delay by constructing additional auxiliary lanes for turning traffic.

Tudor Road is part of the National Highway System and connects the Seward and Glenn Highways via Muldoon Road. The intersection is used heavily for east/west traffic and for travel between east Anchorage and south Anchorage (Figure 2). Project area land use is primarily commercial and is ancillary to the University Medical (U-MED) District - the most rapidly growing commercial area and employment center in Anchorage. This intersection experiences level of service F, which is indicative of stop-and-go conditions with frequent and lengthy delays (greater than 80 seconds/vehicle), on all major movements during both morning and evening peak flows.

The Annual Average Daily Traffic (AADT) volume is shown in Table 1 as reported in the State of Alaska Department of Transportation and Public Facilities *2005 Central Region Annual Traffic Report*.

Table 1: 2005 Annual Average Daily Traffic Volume

Route No.	Name	Length (miles)	Intersection Mile Post	2005 AADT
134140	Lake Otis Parkway	7.280	1.740	35,270
134142		0.430	1.740	24,500
133899	Tudor Road West of International East of International	5.661	2.700	40,640 46,511

The original intersection was designed using a design vehicle that was a truck and trailer combination with a wheelbase of approximately 50 feet (designated a WB-50). Today, the trucking industry is using a larger combination that has a 67-foot wheelbase. The MOA's Permitted Truck Routes Map designates Tudor Road as a major truck route and Lake Otis Parkway as a secondary truck route. However, coordination with the MOA's Traffic Department, DOT&PF, and Alaska Trucking Association lead to the determination that Lake Otis Parkway is not a designated or desired truck route and that the pedestrian benefits of designing for a WB-50 were more important than accommodating the limited WB-67 turning movements at this intersection.

The 10-year crash rate for the intersection is about 2.4 crashes per million entering vehicles. This crash rate is higher than the statewide average of 1.4 crashes per million entering vehicles published in the *Alaska Highway Safety Improvement Program Handbook* (DOT&PF, 1999). A secondary benefit of the capacity improvements is that fewer rear-end and angle crashes should result from reducing the right- and left-turning queues. This intersection also has the third highest number of pedestrian crashes in Anchorage over the 1998-2002 analysis years found in the *Pedestrian and Bicycle Collisions with Motor Vehicles in Anchorage: 1998-2002* report completed by DOT&PF.

II. Project Description

The design vehicle for this project is a truck and trailer combination with a wheelbase of approximately 50 feet (designated a WB-50). The existing lane configuration will be modified to add left-turn lanes in the northbound, southbound, and eastbound directions such that all approaches would have dual left-turn lanes. The proposed roadway will utilize 12-foot lanes (when not adjacent to curb and gutter) on Tudor Road from Laurel Street to the driveway accessing University Park Condominiums just before MacInnes Drive and 11-foot lanes on Lake Otis Parkway from East 47th Court to East 42nd Avenue. Additionally, modifications would be made to center raised medians and sidewalks. Intersection islands would be constructed and right-turn lanes would be added (Figure 3).

A 6-foot median width will be used to accommodate surface crossing refuge for pedestrians with a 3-foot opening in the median to accommodate wheel chairs. The existing sidewalk width will remain the same along the west side of Lake Otis Parkway, at 5 feet, but an 8-foot sidewalk is being considered along the east side of Lake Otis Parkway to comply with the 2005 LRTP pedestrian route designation. An 8-foot-wide multi-use pathway will be constructed on both sides of Lake Otis Parkway where feasible within the constraints of the retaining walls.

The concept would require right-of-way (ROW) acquisition, utility relocation, landscaping, lighting, signal modifications, bus stop pullout modifications, and pedestrian accommodations to meet ADA criteria (Figure 4). Work would extend up to approximately 1,500 feet from the intersection in each direction.

Three other alternatives that consist of identical lane configurations placed at slightly different locations within the intersection were considered and dismissed because they required larger ROW acquisitions, and would therefore result in a greater impact to surrounding properties.

III. Environmental Consequences

Complete the following. For each yes, summarize the activity evaluated and the magnitude of the impact and the potential for significant impact based on context and intensity. An alternatives analysis (e.g. Avoidance and Minimization Checklist) is required for any consequence category with an asterisk (*). Summarize impacts in this form with detailed analysis attached as appropriate.

A. <u>Right-of-Way Impacts</u>	<u>N/A</u>	<u>YES</u>	<u>NO</u>
1. Additional right-of-way required.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a. Permanent easements required.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated number of parcels: <u>0</u>			
b. Full or partial property acquisition required.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Estimated number of parcels: <u>15</u>			
c. Property transfer from state or federal agency required. List agencies in No. 3 below.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Business or residential relocations required. If yes, summarize the findings of the conceptual stage relocation study in No. 3, below and attach the conceptual relocation study.	<input type="checkbox"/>	<input checked="" type="checkbox"/> *	<input type="checkbox"/>
No. of relocations: <u>2</u>			
Type of relocation: Residential: <input type="checkbox"/> Business: <input checked="" type="checkbox"/>			
Residential (Indicate number: _____)			
Business (Indicate number: <u>2</u>)			
e. Last-resort housing required.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2. Low-income and minority populations are disproportionately high and adversely affected by the project as defined in E.O. 12898 (DOT Order 6640.23, December 1998).
3. Summarize impact.

The project overlaps two MOA census tracts: Census Tract 15 north of Tudor Road, and Census Tract 18.01 south of Tudor Road according to the *Anchorage Indicators Neighborhood Sourcebook* for the year 2000 census. Tracts 15 and 18.01 are 80 percent white and 71 percent white, respectively, and contain 5 percent and 8 percent Alaskan Natives, compared to 15.6 percent Natives for the state as a whole. The median income in Tract 15 is \$65,000 a year and \$40,000 per year for Tract 18.01. The median income for the state in 2000 was \$52,000. The community surrounding the Tudor Road/Lake Otis Parkway project would not be considered either low-income or minority. Thus, no impacts to such populations would occur through the necessary acquisition of ROWs.

The ROW acquisition will consist of permanent interests and temporary interests. Temporary interests will provide access rights during the period of construction. All acquisitions would be partial takes of an existing larger parcel. The interest in the property to be acquired is based on the ownership. Temporary Construction Easements (TCE's) apply to acquisition of privately owned parcels. If a Temporary Construction interest is required of a MOA owned property, a Temporary Intergovernmental Permit (TIGP) will be acquired. A permanent interest of private property will be acquired as a Public Use Easement (PUE), while for a MOA property it will be an Intergovernmental Permit (IGP). The following ROW acquisitions/easements would occur (Figures 5-8):

<u>Parcel Number</u>	<u>Description</u>	<u>Interest Required</u>	<u>Size (sf)</u>
19A	Un-subdivided S1/2 SW1/4 SE1/4 SE 1/4 Sec 29	PUE	7,887
2B	Lathrop Subdivision Tract A1C	TCE	10,739
2A	Lathrop Subdivision Tract A1C	PUE	8,698
3A	BLM Sec Lot 32 W	IGP	8,225
4A	BLM Sec Lot 32 E	IGP	5,991
5A	BLM Sec Lot 33	PUE	7,325
6A	BLM Sec Lots 15	PUE	1,650
7A	BLM Sec Lots 14	IGP	4,950
8A	Urbanek Sub 13 B	IGP	1,200
9A	Urbanek Sub 13 A	IGP	19,812
12A	BLM Section Lot 31	PUE	4,821
13A	BLM Section Lot 30 S2	PUE	2,059
14A	BLM Section Lot 30 N2	PUE	712
14B	BLM Section Lot 30 N2	TCE	326
15A	Forrest Drive Sub 4	<u>PUE</u>	<u>2,088</u>
		<u>Total</u>	<u>86,483</u>

In addition, two businesses will be relocated. This is discussed further under Section B, below, and in the Conceptual Stage Relocation Study (Appendix M).

For the parcels purchased in advance, the following conditions are met:

- (1) The property was lawfully obtained by the State;
- (2) The property was not land described in 23 U.S.C. 138;
- (3) The property was acquired in accordance with the provisions of 49 CFR part 24;
- (4) The State complied with the requirements of title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d-2000d-4);

- (5) The State determined and the FHWA concurs that the action taken did not influence the environmental assessment for the project, including:
 - (i) The decision on need to construct the project;
 - (ii) The consideration of alternatives; and
 - (iii) The selection of the design or location; and
- (6) The property will be incorporated into a Federal-aid project.
- (7) The original project agreement covering the project was executed on or after June 9, 1998.

All other ROW will be acquired in accordance with the Uniform Act.

B. <u>Social Impacts</u>	<u>N/A</u>	<u>YES</u>	<u>NO</u>
1. The project will affect neighborhoods or community cohesion.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. The project will affect travel patterns and accessibility (e.g. vehicular, commuter, bicycle, or pedestrian).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. The project will affect school boundaries, recreation areas, churches, businesses, police and fire protection, etc. Include the direct and indirect impacts from the displacement of businesses in the analysis.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. The project will adversely affect the elderly, handicapped, nondrivers, transit-dependent, minority and ethnic groups, or the economically disadvantaged.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Summarize impacts, if any.			

The Tudor Road/Lake Otis Parkway Intersection Improvements project would benefit traffic flow through the intersection, and thereby aid motorists in accessing this growing area of Anchorage. Some motorists who currently avoid the intersection are expected to resume using Tudor Road as a through-route.

The following businesses would be impacted in whole or in part as a result of this project (Figures 5-8):

PARCEL NUMBER

- 19A Un-subdivided S1/2 SW1/4 SE1/4 SE 1/4 Sec 29. Owned by Hickel. Vacant land. A ten- to fifteen-foot strip take is proposed on the business property's southern boundary to accommodate addition of a left turn lane for Tudor Road (Figure 6).
- 2A Lathrop Subdivision, Tract A1-C. Owned by Hickel. Mall. Tudor Road widening to the north will widen into the mall parking stalls located on the eastern border of the property adjacent to Lake Otis Parkway. The parking serves the patrons of the Golden Donuts and the Dave Strike State Farm Insurance Office at 2213 E. Tudor Road. The proposed project will take the four southern most parking stalls, leaving five stalls remaining along Lake Otis Parkway, and 5-6 stalls fronting the building (Figure 6). The preliminary findings of the parking study for this property indicates 167 spaces are required by Municipal Code and 183 spaces are existing, which is 16 spaces over the required. The acquisition of four of the existing spaces does not create a large impact to the ability of customers to park and access the affected businesses.
- 2B Lathrop Subdivision, Tract A1-C. Owned by Hickel. Mall. Tudor Road will widen to the north to allow construction of the proposed left turn lane. Tudor Road sets above the property and a retaining wall contains the existing roadway embankment. The widened Tudor Road section will acquire land to allow construction of a new wall 10-25 ft onto the property. The wall will support a new sidewalk section that will be close to the mall structure at 2207 E. Tudor Road (Pizza Hut), and to the mall structure at 2213 E. Tudor Road (Stars of Alaska and Golden Donuts). An existing alleyway located along the south side of 2213 E. Tudor Road will be narrowed by the roadway widening. The alley will change in width from 18.5 ft to 10.5 ft. The alleyway serves as a drive-through access to Golden Donuts. Though narrowed by

the proposed Tudor expansion, the remaining lane will be of adequate width for a drive through. AASHTO requirements for low speed, low volume lane widths indicate 9 ft is adequate (Figure 6).

- 3A BLM Lot 32 W 180'. Owned by Heritage Land Bank/MOA. Vacant. Widening to the north for the proposed right turn lane on Tudor Road westbound, and the widening to the east for the proposed left turn lane on Lake Otis southbound, will require a 40-ft strip along each of the south and west property boundaries (Figure 7).
- 4A BLM Lot 32 E, E 150'. Owned by Heritage Land Bank/MOA. Temporary Lease. Tudor Road will widen to the north for the proposed right turn lane. The widening will require a 40-ft strip take. HLB currently leases the lot to a automobile park and sell business. The proposed taking will eliminate approximately 28-parking spaces of the 50-parking spaces (based on counts from aerial photography) (Figure 7). The relocation of the business is addressed in the conceptual stage relocation report.
- 5A BLM Section Lot 33A. Owned by Larson & Novella. Mall. Tudor Road will widen to the north for the proposed right turn lane. The widening will require a 25 ft strip take along the southern boundary of 2421 E. Tudor. The proposed sidewalk will be located at the edge of the mall's parking area. No loss of parking stalls is proposed (Figure 7).
- 6A BLM Section Lot 15. Owned by Stewart Family Partnership, Parkside Apartments. The widening of Lake Otis Parkway to the east to accommodate the proposed right-turn lane addition will require a strip take 0-20 ft in width on the west boundary of the 4543 Lake Otis Parkway property. An existing fence, landscaping and driveway entrance will be affected and require some reconstruction (Figure 8).
- 7A BLM Section Lot 14. Owned by MOA. Temporary Lease. The widening of Lake Otis Parkway to the east to accommodate the proposed left turn lane addition will require a strip take 20-40 ft in width on the west boundary of the 4501 Lake Otis Property. The MOA currently leases the property to Peacock Dry Cleaners. Parking spaces fronting Lake Otis Parkway will be eliminated by the roadway widening. Parking remains along the north side of the structure (Figure 8).
- 8A Urbanek & Kerkove Subdivision Lot 13B. Owned by Heritage Land Bank/MOA. Current use, unknown. The widening of Lake Otis Parkway to the east to accommodate the proposed left turn lane addition will require a strip take of 40 ft along the west boundary of the property. No impact to the use of the property has been determined. The lot is a 'flag' lot, and the west boundary is the narrow flagpole portion of the lot that contains the driveway access to Lake Otis Parkway. The driveway will be reconstructed to match back in (Figure 8).
- 9A Urbanek & Kerkove Subdivision Lot 13A. Owned by Heritage Land Bank/MOA. Vacant. The widening of Lake Otis Parkway to the east to accommodate the proposed left turn lane addition will require a strip take of 45-20 ft along the west and north property borders respectively (Figure 8).
- 12A BLM Section Lot 31. Owned by Hardar Turker. Multi-use. The widening of Lake Otis Parkway to the east to accommodate a left turn lane addition will require a strip take of 30 ft along the west property boundary of 4309 Lake Otis Parkway. The property has a coffee kiosk/gyro sandwich stand and a automobile park and sell business. The roadway widening will require relocation of the coffee kiosk/gyro sandwich business (Figure 7). The relocation of the sandwich shop is addressed in the conceptual stage relocation study (Appendix M).
- 13A BLM Lot 30, S ½. Owned by Larsen & Novella. Vacant. The widening of Lake Otis Parkway to the east to accommodate the proposed left turn lane addition will require a 25 ft strip take along the west property boundary of 4245 Lake Otis Parkway (Figure 7).
- 14A BLM Lot 30, N ½. Owned by Larsen & Novella. Medical offices. The widening of Lake Otis Parkway to the east to accommodate the proposed left turn lane addition will require 10-ft of strip take on the 4231

Lake Otis Parkway property's western boundary. Lake Otis Parkway sets approximately 6-7 ft above the building level and fill from the widening will fall onto the structure. A short retaining wall is proposed that will retain the sidewalk fill and leave approximately 4 ft from back of sidewalk to the building's southwest corner (Figure 7).

15A Forest Drive Subdivision, Lot 4. Owned by W.L. Sutterlin. Medical supply store. The widening of Lake Otis Parkway to the east to accommodate the proposed left turn lane addition and a right turn lane to East 42nd Avenue, will require a 15 ft strip take on the 4201 Lake Otis Parkway property's west boundary. The take will impact approximately 8-parking spaces (Figure 7). The preliminary findings of the parking study indicate 10 spaces are required and 14 spaces are existing. The impact to the parking can be addressed by the installation of a retaining wall adjacent to Lake Otis Parkway that will eliminate or reduce the spaces required.

No Parcel Number. BLM Section Lot 12, west portion, owned by Baik Insook, motel.

The existing motel business has 19 units, of which 16 units are motel rooms for rent. The building is a two-story structure with an interior stair access to the upper floor units. Current access of rooms on the upper rear portions of the building (west side) is both by the interior stairs and by parking on the upper west side. This area of parking is accessed by a joint use driveway located between the west corner of Lot 13 and the east corner of Lot 13A. It is not clear if the upper west side access has legal parking spaces or only access across Lot 13A as the use agreement indicates.

The widening of Lake Otis Parkway to the east to allow addition of a left-turn lane and to provide space for pedestrian islands, as well as outer curb radius to accommodate a WB50 design vehicle wheel track results in placing the turn radius too close to the existing joint use driveway described above, and it is proposed to be eliminated.

The impact to the motel is that the upper rooms would no longer have drive-up access on that level. The preliminary parking study indicates that the existing main parking lot located on the east side of the Tudor Motel has 21 spaces. The required spaces for the motel is one space per unit per MOA code. The 16 rooms and office would require 19 spaces with a surplus of two spaces available.

Various temporary construction easements (TCE's) will be required for retaining wall construction access, for driveway reconstruction, and for grading adjacent to property lines. It is recommended the temporary construction easements be determined in the design phase for the roadway to allow acquisition of right of way to include the TCE's. No other businesses are expected to be impacted as a result of this project.

Short-term intermittent impacts to pedestrians and bicyclists are expected throughout the construction phase of the project. The project proposes construction of median islands for pedestrian refuge which will require widening of the intersection approach to allow the right-turn lanes to approach the marked pedestrian crossings at a flatter angle to improve pedestrian visibility to the driver and to allow the island to be increased in size to accommodate a waiting pedestrian. A Pedestrian Detour Plan will be reviewed and approved by DOT&PF prior to implementation and used throughout the construction phase. Continued use of the existing signal system will be maintained throughout construction as well as additional signage to guide pedestrians to cross prior to approaching the construction zone.

C. <u>Economic Impacts</u>	<u>N/A</u>	<u>YES</u>	<u>NO</u>
1. The project will have economic impacts on the regional and/or local economy, such as effects on development, tax revenues and public expenditures, employment opportunities, accessibility, and retail sales.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. The project will affect established businesses or business districts.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

C. Economic Impacts

N/A YES NO

3. Summarize impacts, if any.

Current delays due to congestion cause some motorists to seek alternate routes in order to bypass this intersection. Although some businesses would have their parking lots and driveway access adversely impacted by the addition of the turning lanes, the improvements in traffic flow will provide a beneficial impact to businesses by enhancing access to the area.

D. Local Land Use and Transportation Plan

N/A YES NO

- 1. Project is consistent with local land use plan.
- 2. Project is consistent with local transportation plan.
- 3. Project would induce adverse secondary and cumulative effects.
- 4. Summarize any adverse effect on the local transportation and land use plan, including secondary and cumulative effects.

The Tudor Road/Lake Otis Parkway Intersection Improvements is Project 601 in the MOA December 2005 2025 LRTP. The project would have beneficial secondary and cumulative effects by relieving congestion at other roadways that are currently impacted by traffic trying to avoid the Tudor Road/Lake Otis Parkway intersection, such as the intersection of 36th Avenue/Lake Otis Parkway.

E. Impacts to Historic Properties

N/A YES NO

- 1. National Register-listed or eligible properties are in area of potential effect. If yes, consult with FHWA.
- 2. There will be an adverse effect on a historic property. *If yes, consult with FHWA, summarize alternatives evaluated, attach SHPO correspondence, and attach signed MOA.* *
- 3. This project would have no potential to cause effect to historic properties. *This project does meet the criteria for no formal review under Section 106 of the National Historic Preservation Act [36 CFR 800.3(a)(1)] per the May 2, 2006 determination by the Alaska Division of FHWA. If yes, note applicability in number 4 below or attach email from the FHWA. Attach SHPO and other appropriate correspondence as appropriate.*
- 4. Summarize impacts to historic properties.

Reger Archeological Consulting (RAC) was contracted to review available cultural site information including the Alaska Heritage Resources Survey files for the project area. The conclusions from that assessment are included in Appendix D. No known cultural properties exist in the project area. The top of the hill southwest of the intersection contains relatively undisturbed woodlands. RAC noted that prehistoric peoples often used such hilltops to observe surrounding areas for game. This site is located outside the project area and therefore will not be affected by the proposed improvements.

Consultation with SHPO, Anchorage Historic Properties, Inc., Cook Inlet Region, Inc., Native Village of Eklutna, and Eklutna Incorporated was initiated June 14, 2006. Copies of the tribal letters can be found in Appendix D.

A Finding of No Historic Properties Affected (NHPA) determination was made by FHWA and SHPO concurred with the determination on December 21, 2006 (Appendix D, Page 30).

- | | <u>N/A</u> | <u>YES</u> | <u>NO</u> |
|---|--------------------------|-------------------------------------|-------------------------------------|
| F. <u>Wetlands Impacts</u> | | | |
| 1. Project involves wetlands as defined by the U.S. Army Corps of Engineers (USACE).
<i>If yes, document public and agency coordination required per E.O. 11990, Protection of Wetlands.</i> | <input type="checkbox"/> | <input type="checkbox"/> * | <input checked="" type="checkbox"/> |
| 2. Wetlands delineated in accordance with DOT&PF/FHWA/USACE 1992 Permit Accord. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Estimated area of involvement (i.e. acres): <u>0</u> | | | |
| 4. Estimated fill quantities (cubic yards): <u>0</u> | | | |
| 5. Estimated dredge quantities (cubic yards): <u>0</u> | | | |
| 6. USACE authorization anticipated: None <input checked="" type="checkbox"/>
Type: NWP <input type="checkbox"/> Individual <input type="checkbox"/> Other <input type="checkbox"/> | | | |
| 7. Summarize wetlands impacts and attach following supporting documentation as appropriate: | | | |
| <ul style="list-style-type: none"> • Avoidance and Minimization Checklist. • Wetlands Delineation. • Jurisdictional Determination. • Copies of public and resource agency letters received in response to the request for comments. | | | |

Wetlands impacts are as follows:

DOWL Engineers (DOWL) performed a wetlands delineation for the project area in September 2006 (Appendix G). Wetlands exist adjacent to the project; however, no wetlands are located within the fill limits of this project (Figure 9). New slopes on the north side of Tudor Road, west of the intersection, would be constructed so as not to exceed the existing toe of slope, resulting in no intrusion into the adjacent wetlands. Wetlands are also known to exist south of Tudor Road. Due to their preservation status, no delineation was performed for these wetlands since no work will be performed in or adjacent to these wetlands.

A Jurisdictional Determination was received from the United States Army Corps of Engineers on April 12, 2007 (Appendix H).

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|---|-------------------------------------|--------------------------|--------------------------|
| 8. Wetlands Finding: | | | |
| a. Are there practicable alternatives to the proposed construction in wetlands? <i>If yes, the project cannot be approved as proposed.</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Does the project include all practicable measures to minimize harm to wetlands? <i>If no, the project cannot be approved as proposed. List any commitments and mitigative measures in Section VII.</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Only practicable alternative: Based on the evaluation of avoidance and minimization alternatives, there are no practicable alternatives that would avoid the project's impacts on wetlands. The project includes all practicable measures to minimize harm to the affected wetlands as a result of construction. <i>If no, the project cannot be approved as proposed.</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- | | <u>N/A</u> | <u>YES</u> | <u>NO</u> |
|---|--------------------------|----------------------------|-------------------------------------|
| G. <u>Fish and Wildlife</u> | | | |
| 1. Anadromous or resident fish habitat. | | | |
| a. Adverse effect on spawning habitat. | <input type="checkbox"/> | <input type="checkbox"/> * | <input checked="" type="checkbox"/> |

G. <u>Fish and Wildlife</u>	<u>N/A</u>	<u>YES</u>	<u>NO</u>
b. Adverse effect on rearing habitat.	<input type="checkbox"/>	<input type="checkbox"/> *	<input checked="" type="checkbox"/>
c. Adverse effect on migration corridors.	<input type="checkbox"/>	<input type="checkbox"/> *	<input checked="" type="checkbox"/>
d. Adverse effect on subsistence species.	<input type="checkbox"/>	<input type="checkbox"/> *	<input checked="" type="checkbox"/>
2. Essential Fish Habitat (EFH).			
a. EFH present in project area.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Project proposes construction in EFH. <i>If yes describe EFH impacts in Section G, No. 5.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Project may adversely affect EFH. <i>If yes, attach EFH Assessment.</i>	<input type="checkbox"/>	<input type="checkbox"/> *	<input checked="" type="checkbox"/>
d. Project includes conservation recommendations proposed by NOAA Fisheries. If no, formal notification must be made to NOAA Fisheries. (Summarize the final conservation measures in No. 5 and list in Section VII).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Wildlife Resources (game/subsistence species):			
a. Project is in area of high wildlife/vehicle accidents.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Project would bisect migration corridors.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Project would segment habitat.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Project would adversely affect species of concern to Alaska Department of Fish and Game (ADF&G). <i>If yes, attach appropriate documentation from ADF&G that demonstrates the project would not result in significant adverse impacts.</i>	<input type="checkbox"/>	<input type="checkbox"/> *	<input checked="" type="checkbox"/>
4. Bald Eagle and Golden Eagle Protection Act			
a. Project slope limits are within 660 feet of eagle nesting tree. <i>If yes, consult USF&WS and attach documentation of consultation.</i>	<input type="checkbox"/>	<input type="checkbox"/> *	<input checked="" type="checkbox"/>
b. Project would adversely affect eagles or their nests. <i>If yes, project cannot be approved as proposed.</i>	<input type="checkbox"/>	<input type="checkbox"/> *	<input checked="" type="checkbox"/>
5. Summarize adverse fish and wildlife impacts.			

Anadromous and Resident Fish Streams/Essential Fish Habitat: Campbell Creek (Stream No. 247-60-10340) is located south of the project (Figure 2) and is a spawning and rearing ground for Chinook Salmon, as noted in the Alaska Department of Fish and Game Atlas to the *Catalog of Waters Important to the Spawning, Rearing or Migration of Anadromous Fishes*. Sockeye, coho, and pink salmon, Dolly Varden, and rainbow trout are also present. The upper limit of anadromous fish use in Fish Creek (Stream No. 247-50-10046) is approximately two miles downstream of the project area; however, it may support anadromous fish in the project area. Work will not be conducted in either of these waterways.

Wildlife Habitat: Properties that would be acquired for ROW expansion or ROW easements are currently developed or were recently demolished. Consultation with OHMP on May 4, 2006, indicated that this project will not further bisect or segment wildlife habitat/corridors as it is an expansion of existing facilities (Appendix C).

Bald Eagles: Informal consultation with the United States Fish and Wildlife Service (USFWS) on February 22, 2006, indicated that there are no eagle nests in the project area (Appendix C).

H. <u>Threatened and Endangered Species (T&E)</u>	<u>N/A</u>	<u>YES</u>	<u>NO</u>
1. Listed threatened or endangered species present.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- | H. <u>Threatened and Endangered Species (T&E)</u> | <u>N/A</u> | <u>YES</u> | <u>NO</u> |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 2. Threatened or endangered species migrate through the project area. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Proposed species present in project area. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Candidate species present in project area. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Project not likely to adversely affect T&E species. <i>If yes, go to Section I.</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Project may adversely affect T&E species. <i>If yes, attach biological assessment and the appropriate documentation from agency with jurisdiction.</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> * | <input type="checkbox"/> |
| 7. Project would jeopardize a T&E species. <i>If yes the project cannot be approved as proposed.</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> * | <input type="checkbox"/> |
| 8. Summarize the findings of the biological assessment and the opinion of the agency with jurisdiction. | | | |

Informal consultation with the USFWS on January 26, 2006, indicated that there are no federally listed or candidate species present in the project area. Furthermore, there are no designated or proposed critical habitats in the project area (Appendix C). No formal consultation under Section 7 of the Endangered Species Act is required.

- | I. <u>Water Body Involvement</u> | <u>N/A</u> | <u>YES</u> | <u>NO</u> |
|--|--------------------------|----------------------------|-------------------------------------|
| 1. Project affects a water body. | <input type="checkbox"/> | <input type="checkbox"/> * | <input checked="" type="checkbox"/> |
| 2. Project affects a navigable water body as defined by USCG, (i.e. Section 9). | <input type="checkbox"/> | <input type="checkbox"/> * | <input checked="" type="checkbox"/> |
| 3. Project affects Waters of the U.S. (as defined by the Corps), Section 404. | <input type="checkbox"/> | <input type="checkbox"/> * | <input checked="" type="checkbox"/> |
| 4. Project affects Navigable Waters of the U.S. (as defined by the Corps) Section 10. | <input type="checkbox"/> | <input type="checkbox"/> * | <input checked="" type="checkbox"/> |
| 5. Project affects a resident fish stream (i.e. A.S. 41.14.840) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. Project affects a cataloged anadromous fish stream (i.e. A.S. 41.14.870). | <input type="checkbox"/> | <input type="checkbox"/> * | <input checked="" type="checkbox"/> |
| 7. Project affects a designated Wild and Scenic River or land adjacent to a Wild and Scenic River. <i>If yes, Regional Environmental Coordinator must consult with the FHWA Environmental Program Manager to determine applicability of Section 4(f).</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8. Proposed river or stream involvement: Bridge <input type="checkbox"/> Culvert <input type="checkbox"/> Embankment Fill <input type="checkbox"/>
Relocation <input type="checkbox"/> Diversion <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent <input type="checkbox"/> N/A <input checked="" type="checkbox"/> | | | |
| 9. Type of stream or river habitat impacted: Spawning <input type="checkbox"/> Rearing <input type="checkbox"/> Pool <input type="checkbox"/> Riffle <input type="checkbox"/>
Undercut bank <input type="checkbox"/> N/A <input checked="" type="checkbox"/> | | | |
| 10. Amount of fill below: OHW _____ MHW _____ HTL _____ | | | |
| 11. Summarize impacts:
No water body would be impacted by this project. | | | |

- | J. <u>Alaska Coastal Management Program (ACMP)</u> | <u>N/A</u> | <u>YES</u> | <u>NO</u> |
|--|--------------------------|-------------------------------------|--------------------------|
| 1. Project is within the Alaska Coastal Management Program boundary. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Project is within a local coastal management district. <i>If yes, consult with the local coastal management official and attach correspondence.</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Project is consistent with local and state coastal management plans. <i>If no, the project cannot be approved as proposed.</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Finding: | | | |

The Coastal Zone Boundary, as established by the MOA 1987 *Coastal Management Plan*, follows Campbell Creek from the centerline 200 feet outward from each bank resulting in a 400-foot corridor. In addition, the

Coastal Zone includes some of the creeks and associated wetlands. Though the study area for the proposed project includes Campbell Creek, work would not commence outside of the existing footprint of the intersection ROW. However, after consultation with MOA it was decided that because the study area includes Campbell Creek the project is within the Coastal Zone and a Coastal Project Questionnaire should be submitted (Appendix F).

K. Hazardous Waste (HW)

	<u>N/A</u>	<u>YES</u>	<u>NO</u>
1. There are known or potentially contaminated sites along the corridor.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. The existing and/or proposed ROW is contaminated.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Extensive excavation is proposed adjacent to, or within, a known HW site.	<input type="checkbox"/>	<input checked="" type="checkbox"/> *	<input type="checkbox"/>
4. Potential for encountering hazardous waste during construction is high.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Summarize impacts of any yes marked in 1-4 and attach appropriate HW investigation report.			

DOWL performed a Phase I Environmental Site Assessment (ESA) in 2006 in support of the Lake Otis Parkway and Tudor Road improvements project. The Phase I ESA, in Appendix I, details potential contamination concerns within or near the project area, and concludes that several locations in the project area warrant additional investigation to assess the presence of sub-surface contamination (Appendix I, page 31). Four properties with recognized environmental conditions, listed below, are located within or adjacent to the proposed project area (Figure 10).

- The former Chevron gas station located on the southeast corner of the intersection of Lake Otis Parkway and Tudor Road. During 1990 facility upgrade, petroleum hydrocarbon contamination and Trichloroethylene (TUE) solvents were encountered. The facility was decommissioned entirely in 2004 with the removal of the USTs and 450 cubic yards of contaminated soil. Additional contaminated soils were removed in 2005 with the remaining planned for removal in 2006. Three monitoring wells remain on the southeast corner of the property.
- The former Renner’s Gas and Save is located on the southeast corner of Tudor Road and Laurel Street. Petroleum contamination was discovered during the 1993 removal of three USTs along with the connected dispensers and product piping. According to information obtained during a personal interview Robert Weimer (DEC), who was present during the site decommission, the site has never been characterized. Mr. Weimer stated that contamination was visible on the groundwater, which is roughly ten feet below ground surface. In addition, Mr. Weimer added that the fuel-impacted soils were placed back into the excavation where they remain to this day. The location of the leaking tank was approximately 60 feet from the southeast corner of the intersection of Tudor Road and Laurel Street.
- The former Texaco Gas Station is located on the northeast corner of the Lake Otis Parkway and Tudor Road Intersection. Soil and groundwater contamination remains on the property but appears to be confined to the property. Groundwater flow is to the northeast. DEC reports that up to 0.202 parts per million of benzene and up to 2,920 parts per million of diesel range organics contamination in soil remains on the property. The USTs were removed in January 2005, and the building and monitoring wells were removed in fall 2005. Methyl Tertiary Butyl Ether up to 95.8 parts per billion remains in groundwater at one monitoring well location.
- Peacock Dry Cleaners located at 4501 Lake Otis Parkway, southeast of the intersection of Lake Otis Parkway and Tudor Road. No release investigation has been conducted for this site. However, dry cleaning-type solvents were discovered in a monitoring well adjacent to the property on the adjacent Chevron site. There are concerns by the DEC that this contamination may be the result of leaks from Peacock Dry Cleaners.

Of the sites listed above, the Former Renner’s Gas and Save and Peacock Dry Cleaners are sites that have been identified where there is a significant potential for suspected and confirmed contaminants to have migrated into

the project area. During design, a Corrective Action Plan (CAP) will be developed and approved by DEC outlining treatment of any contaminated soil or groundwater encountered during construction. If contaminated soils or groundwater are encountered, DEC will be contacted immediately to coordinate cleanup efforts and ensure that contamination is not spread or impacted in any way.

- | L. <u>Air Quality (Conformity)</u> | <u>N/A</u> | <u>YES</u> | <u>NO</u> |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. The project is located in an air quality maintenance area or nonattainment area (CO or PM-10). <i>If yes, indicate CO <input checked="" type="checkbox"/> or PM-10 <input type="checkbox"/> and complete the remainder of this section. If no, continue to next section.</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. If applicable, the project is included in a conforming Long Range Transportation Plan (LRTP) and Transportation Improvement Program (TIP) (state dates of FHWA/FTA conformity determination). Date: December 2005, 2006-2008 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. The project is exempt from an air quality analysis per 40 CFR 93.126 (Table 2 and Exempt Projects). <i>If yes, continue to next section. If no, complete the remainder of this section. Note: A project-level air quality conformity analysis is required for CO nonattainment and maintenance areas and a qualitative project-level analysis is required for PM-10 nonattainment and maintenance areas.</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Have there been any significant changes in the design, concept, and/or scope as discussed in the most recent conforming TIP and LRTP? <i>If yes, describe changes in No. 7. In addition, the project must satisfy the conformity rule's requirements for projects not from a plan and TIP, or the plan and TIP must be modified to incorporate the revised project (including a new conformity analysis).</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. If required, a CO project-level analysis was completed meeting the requirements of Section 93.123 of the conformity rule. The results satisfy the requirements of Section 93.116(a) for maintenance areas or 93.116(b) for nonattainment areas. <i>Attach a copy of the analysis.</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. If required, a PM-10 project-level air quality analysis was completed meeting the requirements of Section 93.123 of the conformity rule. The results satisfy the requirements of Section 93.116(a). (The thresholds are different for PM-10 than they are for CO). <i>Attach a copy of the analysis.</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. Summarize air quality impacts:

The project is located within Anchorage, a CO maintenance area. The proposed project is not expected to elevate CO concentrations above the attainment thresholds. DOWL performed an Air Quality Conformity Analysis for the project in which three scenarios were modeled for compliance with current CO concentration standards:

- The first scenario is an analysis for existing emissions levels (2006).
- The second scenario involved adjusting lane widths, shoulder width, and roadway alignment for the intersection based on proposed design plans. Traffic volumes were adjusted to reflect conditions for the year 2015.
- The third scenario utilized the same roadway modifications from scenario 2 with vehicular volumes from 2025 conditions.

As indicated in Table 2, below, results for all scenarios indicate that proposed roadway improvements will be below the 1-hour and 8-hour CO concentrations (35 ppm and 8 ppm, respectively). The highest modeled concentration along the roadways will be 9.0 ppm, 1-hour concentration under the '2006-Existing' scenario. Air quality in the project area is most affected by the amount of traffic on Tudor Road. A contributing factor was the amount of 'cold starts' and cold driving that currently exists from residential traffic commuting to work through the project site. As traffic is routed away from the project area, CO emission contributions from traffic will continue to decrease.

Table 2: CO Concentrations Along Roadway

Scenario	Receptor Number	Wind Direction (degrees)	CO Concentration (ppm)	
			1-hour	8-hour
2006-Existing	3	290	9.0	6.3
2015-Proposed	48	298	5.8	4.1
2025-Proposed	48	307	4.6	3.2

Since the latest update to the Conformity Analysis report, there has been a design change. The following items will differ from the Conformity report:

- An additional right-turn lane will be added to northbound Lake Otis Parkway (for a total of two right-turn lanes).
- The turn radius will be increased slightly for the northwest, northeast, and southeast corners.
- Pedestrian islands will be added between the through lanes and right turn lanes.

The effect of these changes on CO concentrations will be minor. In the case of the enlarged turn radii, the only effect will be to relocate potential CO receptors slightly farther away from the center of the intersection. The additional right-turn lane will decrease CO concentrations slightly because it will decrease the number of idling cars queued in the existing single right-turn lane. This will reduce CO concentrations in the southeast corner of the intersection. It should be noted that the Air Quality Conformity Analysis anticipates that receptor 48, adjacent to the northbound Lake Otis Parkway right-turn lane, will have the highest concentration of CO. This is the area where CO reductions will be the greatest due to the addition of the second right-turn lane.

On February 20, 2007, an e-mail notification of the design change was sent to agencies (Appendix C). Agency representatives were requested to provide comments on whether the model should be re-run and the Air Conformity Report revised to take into account the design change. The comment period ended March 22, 2007, and no comments were received. The Air Quality Conformity Analysis was finalized in October 2007.

Public notification of the Air Quality Conformity Analysis ran as an advertisement in the Anchorage Daily News on April 2, 2007. The public review for this analysis ended on May 2, 2007, and no public comments were received.

The analysis described above indicates that the Tudor Road/Lake Otis Parkway intersection improvements project meets the requirements under 40 CFR 93.116(a) for maintenance areas, as established by the 1990 Clean Air Act Amendments regarding the conformity of transportation programs. The analysis demonstrates that further emission levels of carbon monoxide with the project are not expected to exceed the 1-hour and 8-hour standards. The complete Air Quality Conformity Analysis can be found in Appendix J.

M. Floodplains Impacts (23 CFR Part 650, Subpart A)

	<u>N/A</u>	<u>YES</u>	<u>NO</u>
1. Project encroaches longitudinally into the 100-year floodplain (i.e. base floodplain in fresh or marine waters). <i>If yes, public comments on the action must be requested and comments received attached. Summarize the findings and attach the "Location Hydraulic Study" developed per 23CFR 650.111.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Project encroaches into a regulatory floodway. <i>If yes attach the location hydraulic study.</i>	<input type="checkbox"/>	<input type="checkbox"/> *	<input checked="" type="checkbox"/>
3. The proposed action would increase the base flood elevation one-foot or greater. <i>If yes attach the location hydraulic study.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. The encroachment is significant as defined by 23CFR 650.105. <i>If yes, the project cannot be approved as proposed without a finding that the proposed action is the</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

M. Floodplains Impacts (23 CFR Part 650, Subpart A) N/A YES NO

“Only Practicable Alternative” as defined in 23 CFR 650.113. Attach the finding for FHWA approval.

- | | | | |
|---|--------------------------|-------------------------------------|--------------------------|
| 5. Project conforms to local flood hazard ordinances. <i>If no, consult with FHWA.</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Project is consistent with E.O. 11988 (Floodplain Protection). If no the project cannot be approved as proposed. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

7. Summarize risk and adverse floodplain impacts:

The project would require approximately 452 cubic yards of fill be placed within the floodplain of Fish Creek in the southeast corner of Lake Otis Parkway and 42nd Street (Figure 9). This fill is needed to allow for the addition of a right-turn auxiliary lane from Lake Otis Parkway northbound to 42nd Avenue eastbound. Adding this lane will relieve traffic congestion, improve safety, and reduce air quality emissions in the project area. A floodplain permit would be obtained from MOA. A draft permit application is contained in Appendix F.

New slopes on the south side of Tudor Road west of the intersection would be constructed so as not to exceed the existing toe of slope, resulting in no intrusion into the floodplain of Campbell Creek.

N. Noise Impact (23 CFR Part 772) N/A YES NO

- | | | | |
|--|--------------------------|-------------------------------------|--------------------------|
| 1. There are noise-sensitive receivers/land uses adjacent to the proposed project. <i>If yes attach the noise analysis, if applicable. If no, go to section “O”.</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|-------------------------------------|--------------------------|

<i>Category A:</i> There are adjacent lands where serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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<i>Category B:</i> There are adjacent picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, hotels, motels, schools, churches, libraries, or hospitals.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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<i>Category C:</i> There are adjacent developed lands, properties, or activities not included in categories A or B above. <i>This would include commercial properties.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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|--|--------------------------|--------------------------|-------------------------------------|
| 2. The project is located on new location, would result in substantial changes in vertical or horizontal alignment, or would increase the number of through lanes. <i>If yes, a noise analysis is required. If not, go to Section O.</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|

- | | | | |
|---------------------------------------|--------------------------|-------------------------------------|--------------------------|
| 3. There is an existing noise impact. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---------------------------------------|--------------------------|-------------------------------------|--------------------------|

- | | | | |
|---|--------------------------|-------------------------------------|--------------------------|
| 4. The project would create a noise impact. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|-------------------------------------|--------------------------|

- | | | | |
|---|--------------------------|-------------------------------------|--------------------------|
| 5. Noise analysis demonstrates potential noise impacts. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|-------------------------------------|--------------------------|

- | | | | |
|--|--------------------------|--------------------------|-------------------------------------|
| 6. There are feasible and reasonable measures that can reduce noise impacts. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|

- | | | | |
|--|--------------------------|-------------------------------------|--------------------------|
| 7. The noise abatement measures listed in 23 CFR 772.13(c)(1-5) have been considered for those receivers where a noise impact would occur. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|-------------------------------------|--------------------------|

8. Summarize noise impact and abatement measures considered, if applicable.

DOWL performed a noise analysis for the project in October 2006 (Appendix K). Predicted noise levels in the project area were determined to be generated predominantly by the high-speed, high-volume through lanes of traffic. The lower volume, lower speed turn lanes had a negligible effect on the predicted noise levels, even though they are slightly closer to the receivers than the through lanes of traffic. The proposed location of the through lanes under the build scenario does not significantly differ with that of the no-build scenario and equated to a less than 1 dBA increase over the no-build condition; therefore, the build noise levels were not significantly greater than the no-build noise levels.

The noise assessment concluded that although several receptors would experience a noise impact in the 2025 build scenario, noise abatement would not be feasible due to the limited ROW (precluding noise berms) and the numerous driveways in the project area that would create gaps in a noise barrier rendering it ineffective. Additionally, because the noise levels in the 2025 build scenario are not distinguishable from the noise levels in the 2025 no-build scenario, noise abatement would not be considered reasonable for this project. Therefore, no noise abatement is recommended.

O. <u>Water Quality Impact</u>	<u>N/A</u>	<u>YES</u>	<u>NO</u>
1. Project would involve a public or private drinking source. <i>If yes, explain in no. 7.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Project would result in a discharge of storm water to a Waters of the U.S.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Project would discharge storm water into or affect an ADEC designated impaired water body. <i>If yes, list in no. 4 and describe in no. 7.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. List name(s) and location(s). Campbell Creek, Anchorage. Fish Creek, Anchorage.			
5. Estimate the acreage of ground-disturbing activities that will result from the project? <u>10</u> acres			
6. Is there a municipal separate storm sewer system (MS4) NPDES permit, or will runoff be mixed with discharges from an NPDES permitted industrial facility? If yes, NPDES permit #: <u>AKS-05255-8</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Summarize the impacts of any “yes” marked in Section O.			

This project would use the existing storm water collection system which drains into Campbell and Fish Creeks. The proposed improvements would increase the impervious area by 0.44 acre; therefore increasing the 25-year discharge by 0.58 cubic feet per second (cfs). Through preliminary drainage analysis it appears that the existing storm drain system has been sized to adequately convey flows from the Tudor Road/Lake Otis Parkway Intersection.

Swirl separators will be installed where storm water discharges into Campbell and Fish Creeks.

No additions would be constructed to the existing storm drain system due to the proposed improvements. A Storm Water Pollution Prevention Plan (SWPPP) will be developed and approved by DEC prior to construction.

P. <u>Permits and Authorizations</u>	<u>N/A</u>	<u>YES</u>	<u>NO</u>
1. Corps, Section 404/10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Coast Guard, Section 9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Department of Natural Resources (DNR), Fish Habitat Permit (T41.870 and .840)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Flood Hazard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Department of Environmental Conservation (ADEC) Non-domestic Wastewater Plan Approval.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. ADEC 401	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. DNR, ACMP consistency	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Other. <i>If yes, list.</i> NPDES General Permit for Construction Activities; MOA Noise Permit.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IV. Construction Impacts

	<u>N/A</u>	<u>YES</u>	<u>NO</u>
1. There will be temporary degradation of water quality.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. There will be temporary stream diversion.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. There will be temporary degradation of air quality.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. There will be temporary delays and detours of traffic.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. There will be temporary impact on businesses.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. There will be other construction impacts, including noise.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Summarize construction impacts associated with any “yes” in Section IV.			

Construction activities are expected to lead to temporary reductions in water quality and air quality. These activities would involve heavy equipment operations, which can produce fugitive dust and can stir fine sediments when in proximity to water. These impacts will be mitigated through the use of BMPs such as site watering to prevent dust, and the implementation of other sediment and erosion control measures.

During design, MOA will establish an Erosion and Sediment Control Plan (ESCP). Prior to construction, a Storm Water Pollution Prevention Plan will be prepared by the contractor and implemented. BMPs would be used to avoid and minimize erosion and sedimentation into Campbell Creek, Fish Creek, and adjacent wetlands. No work is planned to occur within the ordinary high water mark of either creek.

Construction impacts to traffic will consist of short-term intermittent lane closures to allow construction to occur for lane widening. Detour lanes must make use of the existing roadway surface because the ROW is limited and will be filled by the improvements. Measures to reduce the impact may include traffic phasing to reduce the number of lanes under construction at any one time, nighttime construction, and weekend intersection closures for work in the intersection. Most construction is expected to occur during nighttime, thereby reducing traffic impacts. The contractor would develop a Traffic Control Plan to reduce delays to motorists to the extent practical. The contractors Traffic Control Plan would be reviewed and approved by DOT&PF.

Alternate routing will be made available to motorists throughout the construction phase. The opening of Abbott Loop Road extension and possibly the Dowling Road extension (if Tudor Road/Lake Otis Parkway Intersection Improvement construction occurs after 2009) will provide an alternative route to bypass the construction. Other routing such as 36th Avenue and Northern Lights Boulevard would also expect to see increased flows during construction. Coordination of any work planned on those routes, especially any closures, will be a requirement in the project specifications.

Local access during construction must be maintained to the extent possible through work zones. This may result in the necessity for construction flagging. Businesses that have multiple access points may experience short-term closures during construction. Traffic diversion patterns may make it more difficult for patrons to access area businesses. However, such impacts are expected to be very temporary and may be further reduced if construction occurs during off hours or at night. Following construction, the new intersection design would provide for greater access to the area, which should lead to at least the same quantity of business, if not more.

Construction activities will lead to temporary noise impacts to surrounding businesses and residences. Since construction would need to occur during nighttime hours to avoid traffic safety concerns a noise permit will be obtained from the MOA (Appendix F). Noise impacts would be mitigated by:

- Taking efforts to minimize noise from 10:00 p.m. to 6:00 a.m. and on Sundays and holidays;
- Residents within 500 feet of the project would be notified pursuant to the public involvement plan contained in Appendix F;
- All equipment would be equipped with mufflers or other noise dampening devices equivalent to the manufacturers specifications; and
- Equipment maintenance areas would be located away from residential areas.

- | V. Section 4(f)/6(f) | <u>N/A</u> | <u>YES</u> | <u>NO</u> |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Section 4(f) properties would be affected by the proposed action. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. There would be a “use” of any land from these 4(f) properties. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. The project would affect Section 6(f) properties. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Funds from the Land and Water Conservation Fund Act (LWCFA) were used for improvement to the 4(f) property. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Is the use of the property receiving LWCFA funds a “conversion of use” per Section 6(f) of the LWCFA? <i>Attach the correspondence received from the ADNR 6(f) Grants Administer. If yes, consult with FHWA.</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. Project is adjacent to a Section 4(f) resource. <i>If yes, consult with the FHWA Environmental Programs Manager to determine applicability of “constructive use”.</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Summarize the type of involvement. Coordinate with the land manager and attach appropriate documentation (i.e. Section 4(f) or Section 6(f) Evaluation). | | | |

Campbell Creek Park is located next to the high-speed, high-volume through lanes of traffic on Lake Otis Parkway and has some active play fields set back from the road, a playground, barbecue pits, and a pathway running through it (Figure 5). Some use the Park for launching canoes and other crafts into Campbell Creek. A Noise Analysis was completed for the proposed project in December 2006. The predicted noise levels were not substantially different from No-Build noise levels, equating to an increase of less than 1 dBA. The project would not move the travel lanes closer to the park and would not substantially change traffic operations adjacent to the Park. Changes in noise would not be perceivable to park users.

Proposed improvements would extend up to approximately 1,500 feet from the intersection in each direction. The southern terminus of this project is located at the northern edge of 47th Court, approximately 66 feet north of the edge of Campbell Creek Park. Construction would not impact access to Campbell Creek Park or the bike path leading into and out of the Park.

DOT&PF consulted with FHWA on April 4, 2007, and determined that no constructive use of a 4(f) property would occur due to the proposed improvements (Appendix C).

- | VI. Comments and Coordination | <u>N/A</u> | <u>YES</u> | <u>NO</u> |
|--|--------------------------|-------------------------------------|-------------------------------------|
| 1. Public/agency involvement for project (<i>required if protected resources are involved</i>). | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Meetings | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Newspaper ads
Name of newspaper: <u>Anchorage Daily News</u> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Scoping letters | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Scoping meeting | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Field review | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Summarize comments and coordination efforts for this project. Discuss pertinent issues raised during public and agency scoping and public meetings. <i>Attach agency correspondence that demonstrates coordination and that there are no unresolved issues.</i> | | | |

Agency Scoping

The agency scoping letter was sent out on March 22, 2006. An agency scoping meeting was held on April 5, 2006. Each resource agency was contacted prior to May 5, 2006, as to whether they planned to submit comments. The following is a summary of comments that were received (complete comments attached in Appendix C) from the various resource agencies and responses where needed:

State of Alaska Department of Natural Resources - Office of Habitat Management and Permitting (OHMP):

- Campbell Creek is an anadromous fish stream supporting Chinook, sockeye, pink, and coho salmon, as well as Dolly Varden and rainbow trout. The specified upper limit of anadromous fish use in Fish Creek is approximately two miles downstream of the project area; however it may support anadromous fish in the project area. Anchorage is classified as an urban area and harvests are considered for recreational and personal use, not subsistence.
 - *Response: Per Cindy Anderson, OHMP, there are two areas of concern; anadromous fish and fish passage. Since the project is located approximately two miles above the documented anadromous reach no impacts to anadromous fish are expected. No alterations to the existing culverts for Fish Creek are expected. Therefore, there will be no effect on fish passage.*
- Some activities potentially involved with the project may require a fish habitat permit: (1) alterations to storm water drainage patterns and water quality that affect Campbell Creek, (2) any work that would potentially block fish passage in Fish Creek.
 - *Response: The existing storm drain system has been sized to adequately convey flows from the Tudor Road/Lake Otis Parkway Intersection Improvements. No alterations to the existing culverts for Fish Creek would be made. Oil/grit separators will be installed where storm water discharges into Campbell and Fish Creeks. A SWPPP will be developed and approved by DEC prior to Construction.*
- There are no Special Areas in the project area.
- The project would not further bisect or segment wildlife habitat/corridors.

State of Alaska Department of Natural Resources – Office of Project Management and Permitting (OPMP):

- The project appears to be within the coastal zone and would require submission of a CPQ during the permitting phase of the project.
 - *Response: After consultation with MOA it was decided that because the study area includes Campbell Creek the project is within the Coastal Zone and a Coastal Project Questionnaire and Certification Statement would be submitted.*

National Marine Fisheries Service:

- The action would not result in any affect to essential fish habitat and no assessment is required.

United States Environmental Protection Agency:

- The project should avoid piping any more of Fish Creek, including the reach that crosses Lake Otis Parkway north of Tudor Road.
 - *Response: The project would not involve piping any more of Fish Creek.*
- The project should maximize opportunities to attenuate area storm water quality and quantity prior to discharge.
 - *Response: Through preliminary drainage analysis it appears that the existing storm drain system has been sized to adequately convey flows from the Tudor Road/Lake Otis Parkway Intersection. The proposed improvements would increase the impervious area by 0.44 acre; therefore increasing the 25-year discharge by 0.58 cfs. Oil/grit separators will be installed where storm water discharges to Campbell and Fish Creeks.*
- The project should avoid placing fill or otherwise adversely impacting the wetlands associated with Fish Creek north and south of Tudor Road and west of Lake Otis Parkway.
 - *Response: The project would not involve the placement of fill in any wetland.*

- If the project reaches south to Campbell Creek and includes changes to that bridge, it should incorporate design measures to improve horizontal and vertical clearance between the bridge and the creek and include stream restoration actions.
 - *Response: The project would not extend south to Campbell Creek. Proposed improvements would extend up to approximately 1,500 feet from the intersection in each direction. The southern terminus of this project is located at the northern edge of 47th Court, approximately 66 feet north of the edge of Campbell Creek Park.*

United States Fish and Wildlife Service (USFWS):

- Maintain the hydrology of Fish Creek through the wetlands.
 - *Response: The project will not alter the hydrology of Fish Creek. Please see the hydrology study contained in Appendix M.*
- Avoid encroachment on the wetlands; if fill must be placed it should be the minimum amount necessary.
 - *Response: No fill would be placed in wetlands.*
- North/south trending waterways tend to be mammal migration corridors; the project should not impact the use of the area by moose.
 - *Response: The project does not involve the installation of any new barriers that would impede the passage of moose or other mammals; wildlife use of the area should not be altered from its current pattern.*
- Bird use in the area is unknown and should be checked.
 - *Response: Informal consultation with the USFWS on February 22, 2006, verified that no active eagle nests would be impacted by this project. Other properties that would be impacted by the expansion of ROW are recently demolished and not considered wildlife habitat. The area of potential bird habitat at the southwest corner of the intersection atop the hill would not be disturbed.*

An e-mail notification of the responses to agency comments received was sent back to the agencies on June 19, 2007 (Appendix C, page 36) in order to insure that their concerns were addressed and that there are no unresolved issues with the proposed project. Agency representatives were invited to contact DOWL for either additional information or further explanation. No inquiries were received.

On July 6, 2006, a meeting with an interagency consultation group was held to discuss the methodology and model input to be used to perform the Air Quality conformity Analysis (Appendix C). A Draft Air Quality Conformity Analysis was provided for review to the inter-agency consultation group on December 29, 2006. The Draft Air Quality Conformity Analysis was revised to reflect comments received from various agencies. On February 20, 2007, the revised Draft Air Conformity Analysis was sent to the interagency consultation group notifying them of the changes made due to comments received from agencies and project design changes. Agency representatives were invited to comment on whether the model should be re-run and the Air Quality Conformity Report revised to take into account the design changes. On March 27, 2007, a reminder e-mail was sent to agencies notifying them that no comments had been received indicating that the Air Quality Conformity Analysis modeling efforts should be revised to incorporate the new design changes. The agency comment period ended March 30, 2007, and no comments were received.

Public Scoping

Consultation with SHPO, Anchorage Historic Properties, Inc., Cook Inlet Region, Inc., Native Village of Eklutna, and Eklutna Incorporated was initiated June 14, 2006. Copies of the tribal letters can be found in Appendix D.

The public scoping meeting was held May 15, 2006. Major issues raised by the public were the need for (both in favor and against) and the timing of the project, improving pedestrian safety at the intersection, impacts to area properties and businesses, impacts to traffic, and suggestions for building an interchange. Copies of all public

VIII. Environmental Documentation Approval

3. Project meets the criteria for programmatic approval under a Programmatic CE Agreement between FHWA and DOT&PF.

N/A YES NO

Prepared by: [Signature]
Environmental Analyst

Date: 10/10/07

Reviewed by: [Signature]
Engineering Manager

Date: 3/24/08

Approved by: [Signature]
Regional Environmental Coordinator

Date: 3/24/08

Approved by: [Signature]
FHWA Area Liaison (signature required only for non-programmatic CEs)

Date: 3/28/2008