



48th Avenue/Boniface Parkway Extension
Tudor Road to Bragaw Street

48th Avenue/Far North Bicentennial Park
Trails Study

June 2007



DOWL
ENGINEERS

48TH AVENUE/FAR NORTH BICENTENNIAL PARK TRAILS STUDY

48TH AVENUE/BONIFACE PARKWAY EXTENSION

Prepared for:

Municipality of Anchorage
Project Management and Engineering
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LIST OF ACRONYMS

ASDRA	Alaskan Sled Dog and Racing Association
DOWL.....	DOWL Engineers
FNBP.....	Far North Bicentennial Park
HLB.....	Heritage Land Bank
MOA	Municipality of Anchorage
TAG	Technical Advisory Group
TOA	Tour of Anchorage
WOMBATS	Women’s Mountain Bike and Tea Society

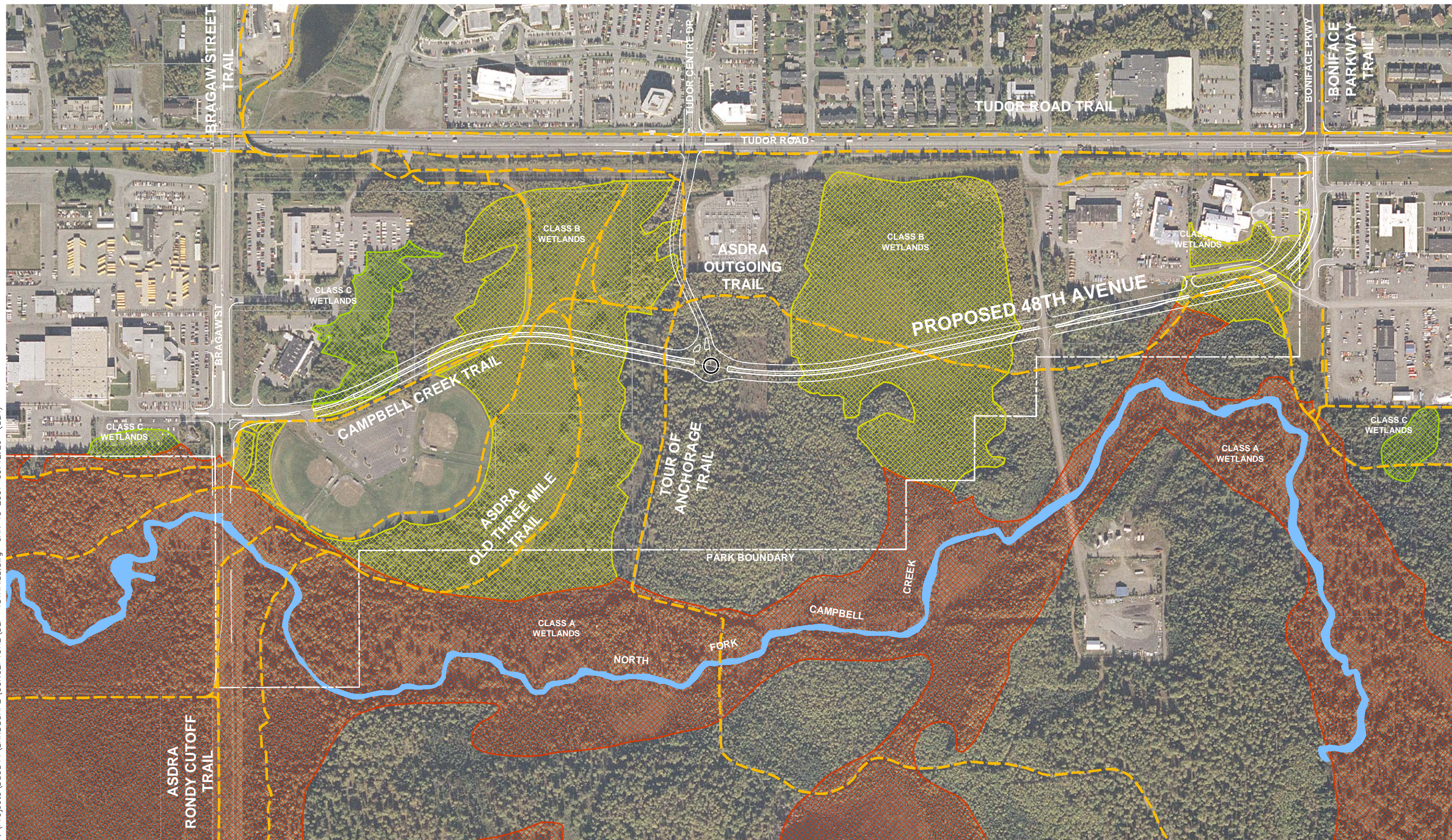
1.0 INTRODUCTION





DOWL Engineers (DOWL) is under contract to the Municipality of Anchorage (MOA) to design a new arterial roadway, 48th Avenue, between Boniface Parkway and Bragaw Street. This new road will cross through mostly undeveloped municipal land located just north of Far North Bicentennial Park (FNBP). This land was transferred to the MOA in the 1980s for recreation and public purposes. The land is managed by the Heritage Land Bank (HLB), which manages municipal lands to benefit the citizens of Anchorage, to promote orderly development, and to achieve the goals of the Anchorage 2020 Comprehensive Plan. A master plan update is currently being prepared for the municipal lands in the area. Lands north of the road are primarily proposed for development for public facilities (fire, police, and other public uses). Lands south of the road would be held exclusively for recreation and open space. An important aspect of this plan is to delineate a “hard” edge between development and recreational open space, using the 48th Avenue extension as the physical delineator.

Although the undeveloped municipal lands are not heavily used for recreation at this point, a number of important trails cross through the area linking the trail system in FNBP with the trail systems at Alaska Pacific University and with the Chester Creek trail system. Trails that cross through the area include the paved multi-use Campbell Creek Trail, the multi-use unpaved Tour of Anchorage (TOA) Trail, and several dog mushing and other non-motorized trails (Figure 1). In addition, the Chuck Albrecht Softball Complex is located near the intersection of 48th Avenue and Bragaw Street.

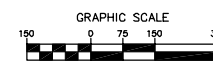
During the project scoping process for 48th Avenue, trail planning was identified as an important issue to be addressed during project design. In addition to those amenities typically associated with an arterial roadway (in-street bicycle lanes, separated multi-use trails), the relocation of and road crossing for the Campbell Creek Trail and the TOA Trail requires special attention. In order to address the interest in these trails issues, DOWL contracted with Troy Duffin, Alpine Trails Inc., to facilitate meetings with the trail users in Anchorage and to identify a preferred trail crossing location and configuration alternatives. This effort is also being used to develop a more detailed trails planning scope for the FNBP area. This more comprehensive trails planning work would be completed under a separate contract.

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-  EXISTING TRAILS
-  CLASS A WETLANDS
-  CLASS B WETLANDS
-  CLASS C WETLANDS

48th AVENUE STUDY AREA



DOWL ENGINEERS
4041 B STREET ANCHORAGE, ALASKA 99503



FIGURE 1

2.0 48TH AVENUE TRAILS STUDY

2.1 48th Avenue Trails Issues

DOWL and Alpine Trails Inc. conducted a site visit, met with trail user groups, and organized stakeholder meetings in September and October 2006. These meetings focused on the trail connections across the proposed 48th Avenue road corridor and produced insight from the perspective of all the different trail users as well as the agencies involved in the project area. The activities conducted during September and October are described below.

- A site visit was conducted with Troy Duffin (Alpine Trails Inc.), Parks and Recreation Department representatives (Jeff Dillon, Monique Anderson, Holly Spoth-Torres, John McCleary), and DOWL (Kevin Doniere).
- Two Technical Advisory Group (TAG) meetings were held. In attendance were representatives from the Bureau of Land Management; HLB; MOA Project Management and Engineering; National Park Service Rivers, Trails, and Conservation Assistance Program; Alaska Trails; and MOA Parks and Recreation.
- A FNBP User Group meeting and a public meeting were held, and existing trail location maps and maps from previous planning efforts on the MOA lands in the area were presented. Valuable input was gained from the various trail users.
- Stakeholder meetings were held with HLB, Alaskan Sled Dog and Racing Association (ASDRA), Nordic Skiing Association of Anchorage, Mountain Bike/Single-Track Advocates/Women's Mountain Bike and Tea Society (WOMBATS), and the MOA Parks and Recreation Department.

Above all other issues and concerns that were discussed through these meetings, three essential trail connections were recognized as the most important considerations related to the area. These trail requirements and linkages are as follows:

1. The Campbell Creek Trail must make a connection to the curved bridge at the intersection of Bragaw Street and Tudor Road.

2. The TOA Trail must make a connection from its existing trail system to the south of the road corridor over to the curved bridge at the intersection of Bragaw Street and Tudor Road.
3. The dog mushing trails must retain their current integrity. Existing trails will be moved to the south of the proposed 48th Avenue alignment, but must maintain the necessary connections to the entire mushing trail network.

Other issues and considerations raised during these meetings included a wide variety of concerns with the following being the most prominent:

- Most trail users agreed that the Campbell Creek Trail and the TOA Trail could be combined on the north side of 48th Avenue.
- Most trail users agreed that all the different multi-users could share a paved multi-use trail in the vicinity of 48th Avenue (except the dog mushers during the winter).
- An over-the-roadway trail crossing is preferred by most of the trail users.
- Some trail users recommended one trail crossing overpass and one wildlife crossing underpass.
- Separated trails/sidewalks should occur on both sides of 48th Avenue.
- Dog mushers should be separated from all other users. They should not share any trails with other users, and should only cross other trails at 90 degree angles if absolutely necessary (grade-separated crossings are preferred), with adequate sightlines. All users agree that dog mushing should continue to exist within FNBP.
- A trail corridor on the north side of 48th Avenue and on the west side of Tudor Centre Drive extension should be defined to preserve a wilderness feel for the combined Campbell Creek Trail and the TOA Trail.
- Six-foot-wide bike lanes should be incorporated on both sides of 48th Avenue and on the extension of Tudor Centre Drive.

- A gateway or trailhead should be incorporated into this area to provide trail users a much needed access point on this north side of the FNBP trail network.
- Recreation users indicated a desire to avoid the Chuck Albrecht Softball Complex by realigning the roadway to move to the north because affecting the ball fields would result in additional disturbance in the study area to construct a new ball field.

Meeting notes from all of the meetings held in September and October are included in Appendix A.

2.2 48th Avenue Trail Crossing Alternatives

Three conceptual alternatives were originally considered for the trail crossing(s) of 48th Avenue: (1) an earthen overpass to allow trail users and wildlife to cross over the road, (2) a trail overpass and wildlife underpass, and (3) a bridged road section. These are described briefly below.

2.2.1 Earthen Overpass Concept

This option considered a large overpass that would accommodate trail users and wildlife in one crossing, similar to the Banff National Park wildlife overpass near Calgary, Alberta, Canada.

This earthen overpass concept would be able to accommodate all trail users and wildlife on a single overpass crossing. Under this concept, the earthen overpass would have a minimum dimension of 100 feet. A 75-foot area for the wildlife and a 25-foot area for the multi-use trail and dog mushing trail will provide adequate room for both trail users and wildlife to cross 48th Avenue in this 100-foot cross section. The overpass would be designed to incorporate at least 5 feet of soil on top of the bridge section. This would provide a significant amount of soil for vegetation such as small trees, scrub, brush, and ground covers to survive, as well as provide a large mass of earth that could serve as insulation and reduce the potential for melting snow on top of the overpass trails. Often on pedestrian overpasses that are used for skiing, the warm air from underneath the overpass causes the trail surface to warm and melt the snow. This mass of earth, once frozen from cold winter temperatures, would take much longer to warm and melt snow on the above trail surfaces. In addition, it

would allow the use of natural vegetation for trail separation along the overpass, to define specific user group routes (wildlife areas), if necessary.

Research indicates that wildlife overpasses are most successful when the profile is as flat as possible (i.e., a low arching design that creates the best cross-roadway field of view for wildlife). Ramps up to the overpass should be relatively straight and with as low a grade as possible (under 5 percent preferred), to best accommodate and encourage use by all trail user groups. This could require a significant amount of fill to construct a very long, low overpass over the roadway. Finally, the design would have to take into consideration the vehicular sight distance from the intersection of 48th Avenue and Tudor Centre Drive.

2.2.2 Trail Overpass and Wildlife Underpass Concept

The second concept consists of a trail overpass for trail users and a wildlife underpass. The TOA Trail and the Campbell Creek Trail would be merged south of 48th Avenue and cross over the road on the overpass. The overpass would be located near the 48th Avenue/Tudor Centre Drive intersection. The wildlife underpass would be located further to the west of the overpass. The dog mushers would be able to use this underpass during the annual Fur Rendezvous events to make a connection onto the combined trail north of 48th Avenue and to the curved bridge to cross Tudor Road. The TOA Trail is currently located in an upland area, and it would make economic and functional sense to keep it in this upland area, if possible.

The trail overpass would be at least 12 to 14 feet wide and could incorporate an aesthetic bridge over the 48th Avenue parkway to create an icon or gateway into FNBP. This proposed width would be wide enough for ski grooming equipment and provides ample opportunity for the multiple user groups, such as providing the ability to groom a 10-foot-wide skate ski area with 4 feet of space on the side to set tracks for diagonal skiing. The trail crossing over 48th Avenue would occur on the west side of the Tudor Centre Drive extension. This will provide one strategic crossing of 48th Avenue and avoid having to create another crossing over Tudor Centre Drive. Again, vehicular sight distance from Tudor Centre Drive along 48th Avenue would effect the location and design of the overpass.

The wildlife underpass would be designed to be 50 feet wide by 13 feet tall. These dimensions meet the recommended openness ratio and minimum dimensions recommended for wildlife crossings, and the location coincides with one of the areas identified as a high use corridor. The placement of this wildlife underpass is critical, and three factors need to be considered. These factors include: (1) the current location of existing wildlife activity, (2) the underpasses distance from the pedestrian overpass, and (3) the future development planned on the north side of 48th Avenue. If the underpass were pushed farther to the east, then the elevation of the road would require the trail overpass to be higher than a typical overpass. If the underpass is placed too far west, then wildlife's current circulation through the area may need to be directed around the future development to the north.

2.2.3 Bridged Roadway Concept

The third crossing concept would consist of a raised roadway section acting as a bridge and allowing for trail users and wildlife to cross under the road. There was agreement within the trail committee that the longer the bridge was, the more desirable it would be to trail users, and that a multi-span bridge would be ideal to provide refuge from wildlife encounters. However, it was also recognized that the costs associated with the bridge would have to be weighed with other cost considerations for the road project. The concept carried forward within this process was a 75-foot-long bridge. This length provides adequate room and separation for trail users and wildlife and avoids the significant increase in cost associated with a multi-span bridge. Snow fencing will be examined as a way to prevent roadway snow plowing from damaging the integrity of the trails below.

2.3 **Analysis of Alternative Concepts**

Initially, three alternative trail crossing concepts were presented to the public and the TAG members. These trail crossing concepts were then evaluated with the proposed road geometry, topography, soils conditions, and their impacts on wetland and upland areas north and south of 48th Avenue.

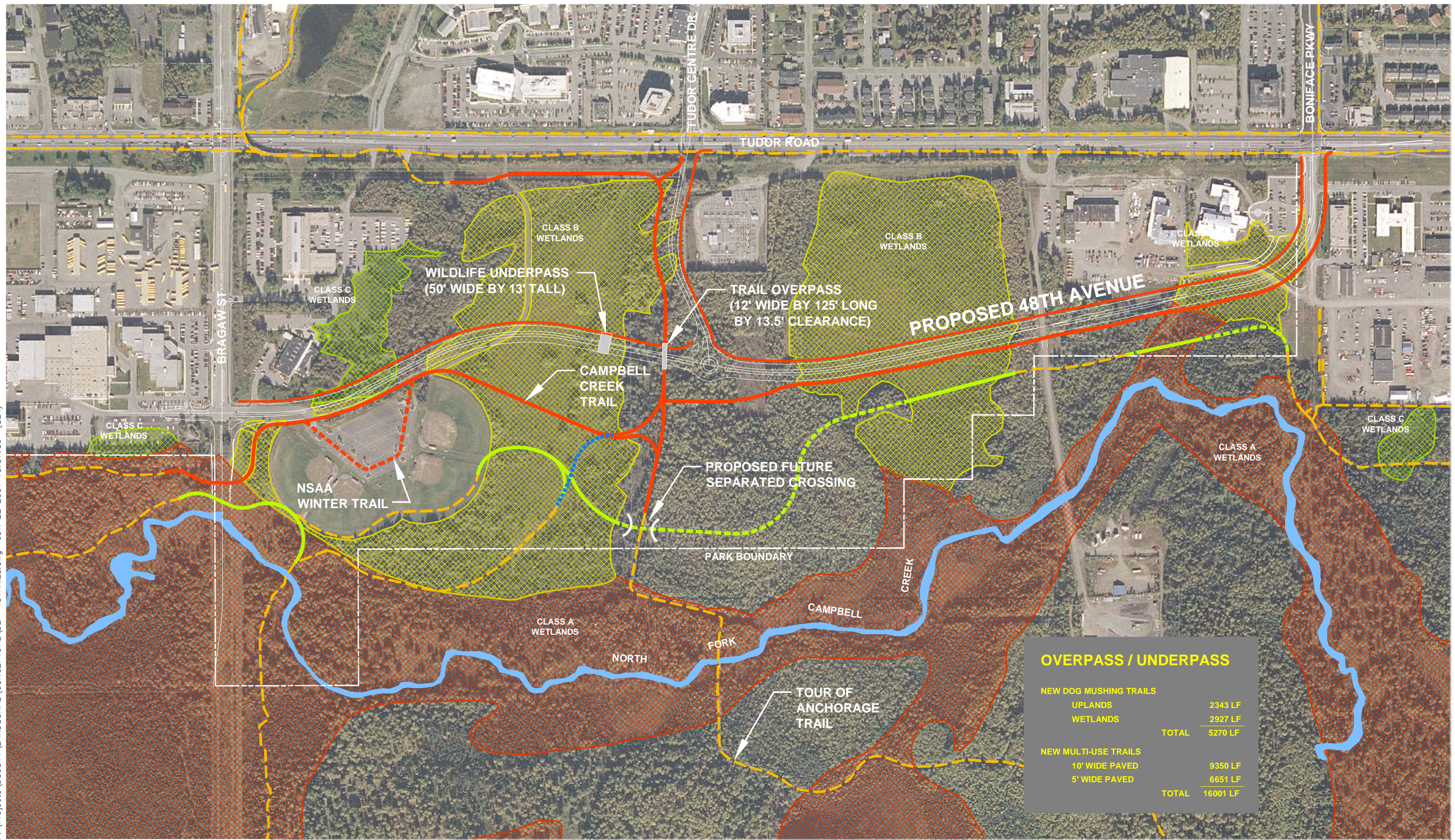
The earthen overpass concept was determined to be too costly for a project of this size. Research on design and construction costs were done for the East Dowling Road project, just south of this project. The costs for developing an earthen overpass with 5 percent grades on

the approach ramps were found to be infeasible for this size of road project. The topography of the land seemed to be working in favor of the earthen overpass in the East Dowling Road area; however, with the required shallow slopes up to the overpass, the amount of fill for the overpass became too costly. Relating this information to the 48th Avenue project area, the topography is actually working against the construction of these shallow sloped approach ramps. In the existing site, the slopes are dropping away from where this earthen overpass would be located, thus increasing the length of these shallow approach ramps and filling more wetlands and uplands in the area.

The concept that included both a trail overpass and a wildlife underpass was considered in more detail (Figure 2). Although this concept provided the preferred overpass for pedestrians, the design considerations associated with having the two crossings in a fairly short area creates design challenges and raises the cost of the concept. Since the road will have to be elevated over the wildlife underpass, the overpass would have to be built higher to go over the road. In addition, in order to get the Campbell Creek Trail up onto the overpass would require a substantial amount of fill through the wetlands that are east of the ball fields (Figure 3). In addition, bringing the overpass trail down to grade on the north will result in substantial clearing on the north side of the road in the area that is intended to function as a greenbelt area for the trail. Due to the higher costs and greater environmental and aesthetic impacts from this alternative, it was not selected as the preferred crossing.

The bridged road concept was determined to be the preferred concept for the trail crossing (Figure 4). This design concept fits the best with the topography in the study area. There is a grade change between the uplands near the proposed 48th Avenue/Tudor Centre Drive intersection and the wetlands to the west of the intersection. This change in grade works well for constructing a bridged roadway that allows for trail users and wildlife to cross under 48th Avenue and to continue north into the greenbelt along the west side of Tudor Centre Drive.

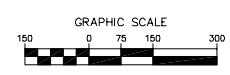
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OVERPASS / UNDERPASS	
NEW DOG MUSHING TRAILS	
UPLANDS	2343 LF
WETLANDS	2927 LF
TOTAL	5270 LF
NEW MULTI-USE TRAILS	
10' WIDE PAVED	9350 LF
5' WIDE PAVED	6651 LF
TOTAL	16001 LF

- EXISTING TRAILS
- MULTI-USE TRAILS - PAVED
- DOG MUSHING TRAILS - UPLANDS
- DOG MUSHING TRAILS - WETLANDS
- FUR RONDY TRAIL CONNECTION
- PROPOSED NSAA WINTER TRAIL

TRAIL OVERPASS / WILDLIFE UNDERPASS CONCEPT

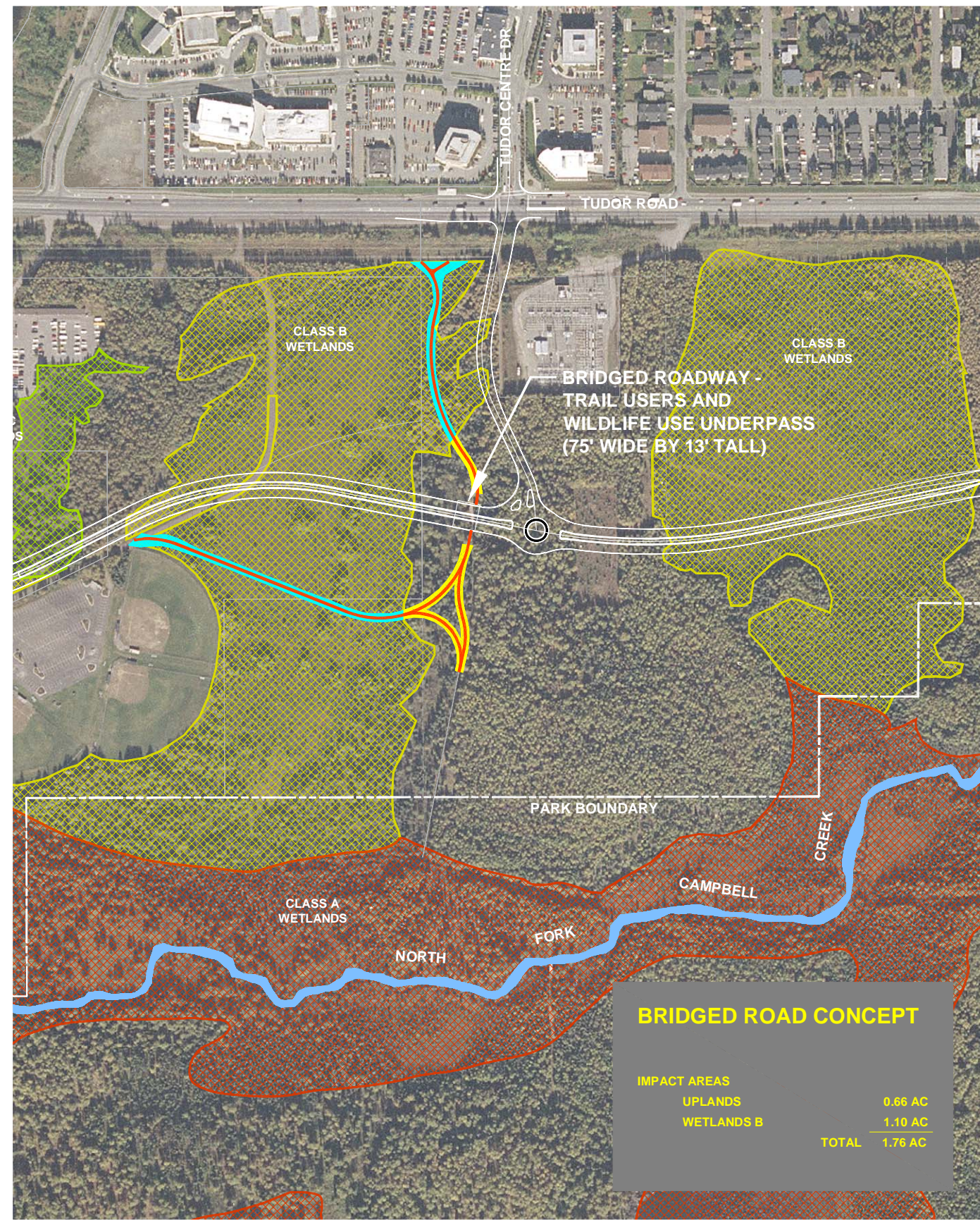
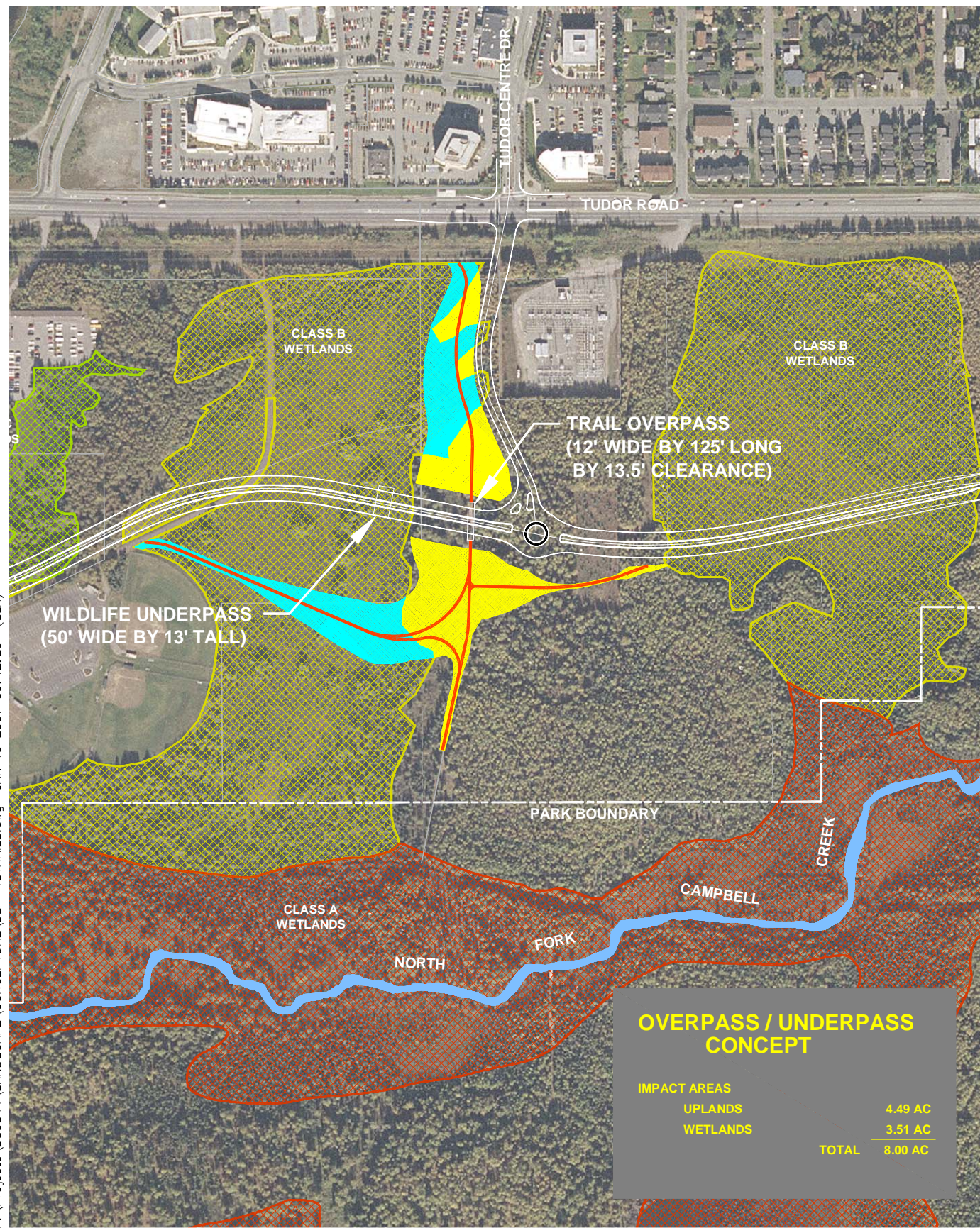


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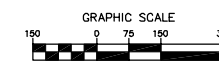


FIGURE 2

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48th AVENUE TRAIL CROSSING IMPACT AREAS

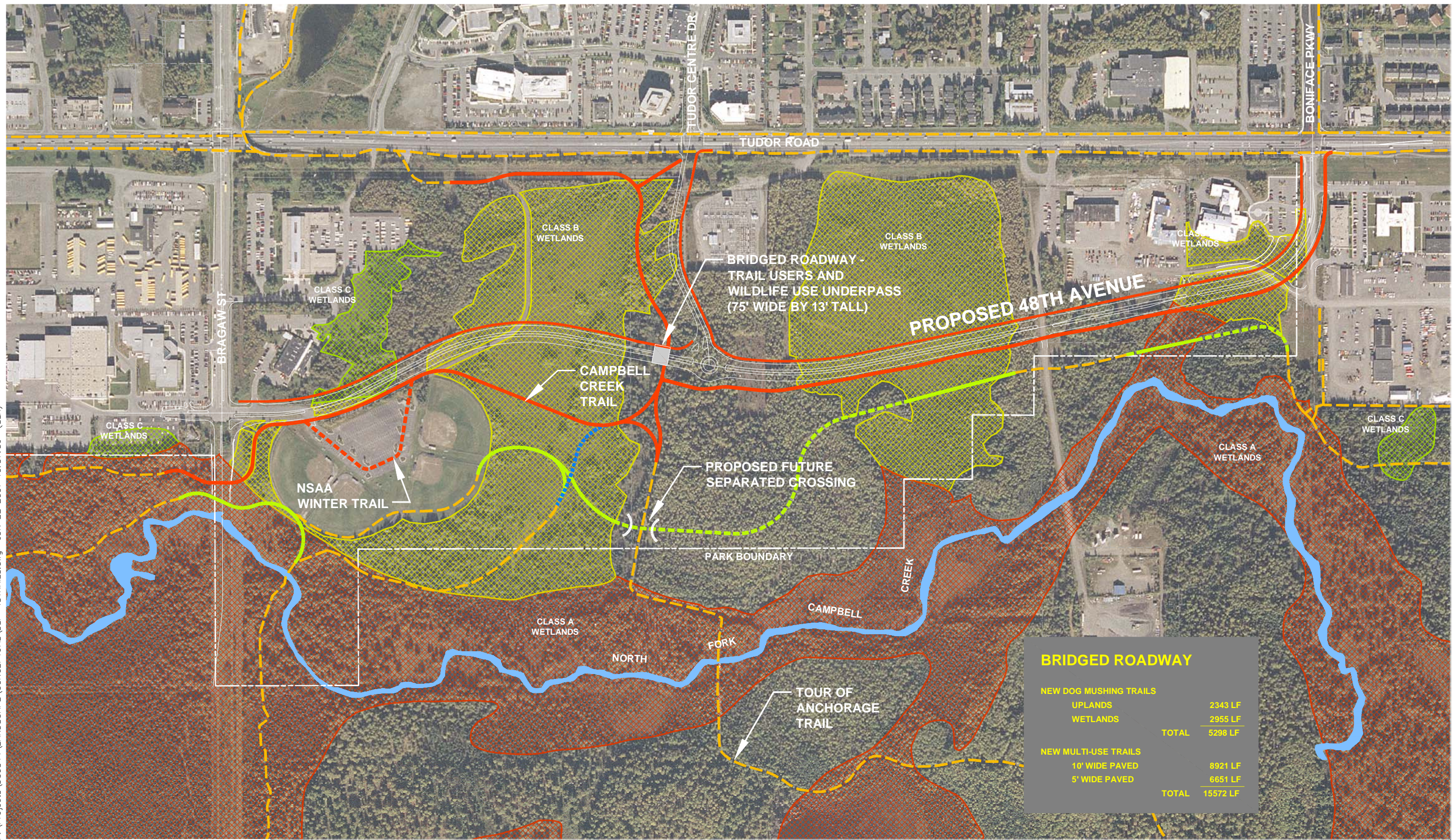


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ENGINEERS
4041 B STREET ANCHORAGE, ALASKA 99503



FIGURE 3

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BRIDGED ROADWAY	
NEW DOG MUSHING TRAILS	
UPLANDS	2343 LF
WETLANDS	2955 LF
TOTAL	5298 LF
NEW MULTI-USE TRAILS	
10' WIDE PAVED	8921 LF
5' WIDE PAVED	6651 LF
TOTAL	15572 LF

- EXISTING TRAILS
- MULTI-USE TRAILS - PAVED
- DOG MUSHING TRAILS - UPLANDS
- DOG MUSHING TRAILS - WETLANDS
- FUR RONDY TRAIL CONNECTION
- PROPOSED NSAA WINTER TRAIL

BRIDGED ROAD CONCEPT

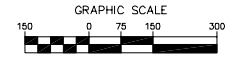


FIGURE 4

The bridged road concept reduces the fill in wetlands (Figure 3), reduces the amount of clearing in the upland areas north and south of 48th Avenue, and can provide adequate room for both trail users and wildlife using one structure, reducing the overall cost. The bridged road concept will include a trail designed to minimize problems with pooling and icing, a bridge designed to minimize the impacts of road debris affecting the trail, and lighting under the bridge in the vicinity of the trail. The room available under the bridge should be sufficient for grooming equipment and to allow setting of multiple trails. Specific design elements to be incorporated into the design are described below:

- Ideally, the bridged section of roadway should be 75 to 100 feet wide in order to adequately accommodate a variety of trail users in every season, as well as provide functional space for wildlife movement. There will be a multitude of differing (and not necessarily compatible) trail users, in addition to wildlife, crossing under the roadway. To best accommodate all expected uses, as well as provide the maximum possible natural light, the width of the undercrossing should be 75 to 100 feet wide.
- There should be a minimum of 10 feet of vertical clearance for at least 50 feet of the undercrossing's width. This vertical clearance must be from the top of the finished trail surface to the lowest point of the roadway structure. This means that after a proper trail has been set with an adequate amount of snow pack, the clearance would be a minimum of 10 feet. For the undercrossing to function properly, the maximum amount of natural light should be able to enter the area, and a minimum of 10 feet of vertical clearance from the trail surface will be the best way to accomplish this.
- Adequate lighting (natural and/or artificial) must be provided. Provisions should be made for 24-hour-per-day lighting in appropriate areas of the undercrossing. The scoping process made it abundantly clear that users will not feel safe if adequate lighting is not provided.
- Snow removal control fencing and/or barriers are an essential consideration for the bridged road. The roadway design should include design features that adequately block snow and debris from adversely affecting the trail below 48th Avenue.

2.4 Other Non-Motorized Trail Considerations Associated With 48th Avenue

2.4.1 Trail Relocations

Based on the series of user group and stakeholder meetings and research on trail alternatives, it is recommended that the Campbell Creek Trail and the TOA Trail be combined to allow for one crossing of 48th Avenue. The Campbell Creek Trail should be reconstructed from near the ball fields to the new trail crossing under 48th Avenue. Once the trail reaches the east side of the ball fields, it will swing south of the road before merging with the TOA Trail to turn to the north under 48th Avenue. NSAA has proposed a new winter trail around the Chuck Albrecht Softball Complex parking lot (see Figure 4). NSAA, in cooperation with the Parks and Recreation Department, will develop and groom this new trail to create an active ski trail farther away from the road edge. The TOA Trail will also be realigned to meet up with the Campbell Creek Trail south of the 48th Avenue crossing. The combined Campbell Creek Trail and TOA Trail will then continue north in a buffered trail corridor that will preserve the wilderness feel of the trail and allow the necessary buffers from the proposed development on the north side of 48th Avenue. The combined trail will then turn west south of Tudor Road until it connects with the existing trail and curved bridge at the intersection of Tudor Road and Bragaw Street.

The Campbell Creek Trail and the combined trail will be paved multi-use trails. Any realignment of the TOA Trail south of 48th Avenue would be constructed using a soft surface tread, such as compacted road base, or a gravel mix.

All dog mushing trails (ASDRA trails) should be relocated to the south side of 48th Avenue. The outgoing trail from Tozier Track through this project area needs to be connected to the east, near Boniface Parkway, in order to connect in with their extensive trail system to the east. When their trail nears the Class A wetlands to the south of the State Health Lab, we recommend a boardwalk with steel pilings for foundations. The piling foundation concept would be the least disturbing to the wetlands and with the proper design could accommodate the needs of the dog mushing community (Figure 5). This boardwalk concept would bridge over the Class A wetlands and connect this main outgoing dog mushing trail to the entire trail system to the east and southeast. An important aspect to consider when laying out the dog

mushing trails is that they require a 100-foot minimum turning radius on their trails, due to the speed of the mushers and the length of the dog teams.

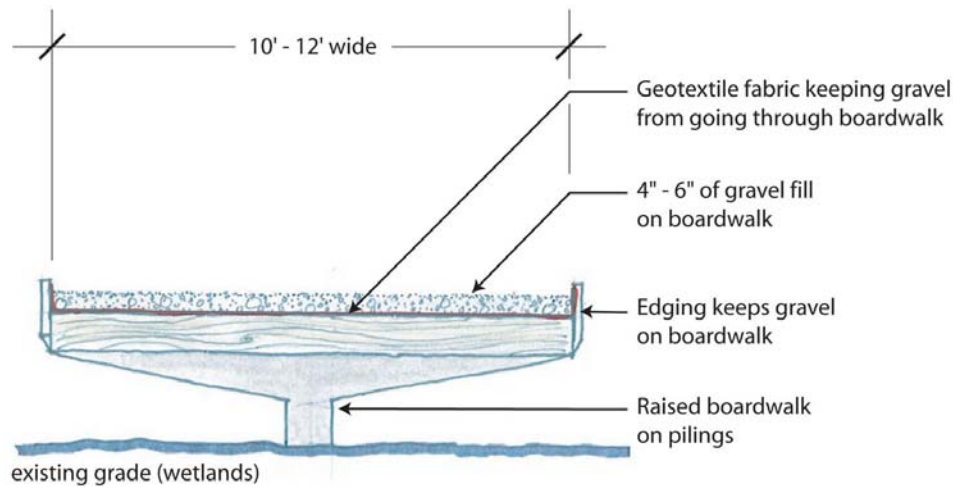


Figure 5: Boardwalk Concept

Finally, we recommend that the proposed crossing of the TOA trail and the dog mushing trail to the south of 48th Avenue be grade separated if possible. It was clear that this is an important issue to all of the various trail users, and it was determined that the best alignment would include a culvert-style underpass for the mushers, with the TOA trail passing over the mushing trail. This grade-separated crossing is not proposed as part of the 48th Avenue road project, but may be addressed further in the Phase II portion of the FNBP Trails Update.

The 48th Avenue road project will fund the clearing, grubbing, boardwalk design, and wetland permitting for the trail relocations discussed above.

2.4.2 Roadside Trails

Bicycle commuters have a strong desire for in-street bicycle lanes through the area. In addition, we recommend the inclusion of a sidewalk or multi-use trail, from the intersection of 48th Avenue and Bragaw Street, following along the north side of 48th Avenue to the intersection of 48th Avenue and Boniface Parkway to the east.

Another recommendation is to have a detached paved trail follow along the south side of the 48th Avenue extension from Bragaw Street to Boniface Parkway. Between Bragaw Street and the main trail crossing of 48th Avenue, this will be the new Campbell Creek Trail. From

the trail crossing of 48th Avenue to Boniface Parkway, the new trail should be constructed with as much buffering from the roadway as possible. This buffering of the trail can be achieved by moving the trail as far from the road as possible and by landscaping to limit snow spray from plowing. This trail will provide access to the combined trail crossing under 48th Avenue and to the Campbell Creek Trail to continue to the west.

3.0 LARGER FAR NORTH BICENTENNIAL PARK TRAILS PLANNING ISSUES FOR PHASE II WORK

In addition to the information gathered on 48th Avenue trails issues, the trail users and stakeholders provided information on issues that should be addressed in the larger FNBP trails planning effort. A summary of the main issues outlined by the trail users and stakeholders is as follows:

- East Anchorage and FNBP need trailheads on this northern side of the park. Consider the Chuck Albrecht Softball Complex as this northern trailhead into FNBP.
- Consider a fill pad around the outside of the fence line of the existing ball fields for a dog mushing trail. Also, explore a comprehensive update to the locations of all dog mushing trails in FNBP.
- Snow shields/deflectors on road overpasses should be incorporated where trails go under roadways.
- Recreational functional diagram of uplands area in 48th Avenue project area should be developed.
- Hardening of the tank trails (at least in the wettest areas) is recommended to prevent more social trails from developing.
- Analyze the increasing conflicts of the different trail users and determine the need for separate trails for the various trail users.
- Consider Boniface Parkway as another trail connection location across Tudor Road.
- Consider Campbell Airstrip Road/Baxter Road as a possible connection across Tudor Road to residential areas, Cheney Lake, Nunaka Park, Russian Jack Park, and onto the Chester Creek Trail system.
- Review the constructability and feasibility of new trails and trail connections.

- Is there a need to make a connection across Tudor Road at Tudor Centre Drive to link into the Powerline Trail to the east of University Lake?
- Determine bicycle connections, from the surrounding roadway network, into the FNBP trails.
- Consider other separated grade crossings over Tudor Road.
- Determine or establish the different trail users trail standards.
- Investigate the use of the State of Alaska Department of Transportation and Public Facilities maintenance yard for park purposes. Could it be used as a future trailhead for park users or dog mushing facility?
- Identify trail crossing design standards for the different overpasses/underpasses considering length, width, clearances, etc.
- Utilize Hilltop Ski Area as a Nordic ski center as well as downhill skiing facility; also consider using the chalet at Hilltop as an all-season facility.
- Determine where lighted trails can be expanded and what areas are in need of lighted connections to existing trailheads (South Bivouac trailhead and Hillside trail system is an example).
- Create an area for separated equestrian trails throughout FNBP.
- Create additional separated single-track trails to accommodate mountain bicyclists.
- Develop a looped ski trail system off the new Abbott Loop Community Park for beginner skiers.
- Consider future trail connection along Gasline Trail to Chugach State Park.
- A comprehensive signage system needs to be developed for FNBP.

- Determine trails and locations for bicycle commuters to be integrated into the network of the trail system.
- Inventory existing trails by type and use, including the ones that have become social trails.
- Consider developing the framework for a single trail user group including all the different types of users to create a strong voice for all trails throughout Anchorage.

3.1 Scope for Phase II Trail Planning Effort

Based on the information gathered to date, the scope for the larger trails planning effort would be expected to include the following tasks:

- Additional stakeholders meeting
- Site visit to various trails within FNBP
- Inventory of Trails, Trail Conditions, and Uses
- Identification of Potential New Trails for Specific Uses
 - Trails for specific uses
 - Trails for multiuse
 - Connections to Chugach State Park and other recreation areas (across Tudor Road)
- Trail Standards for each user group
- Trail Crew Specifications (crewmembers, types of equipment, etc.)
- Recommendations and Priorities
- Preparation of Capital Improvement Plan for trail improvements

APPENDIX A

Stakeholder Meeting Notes

MEMORANDUM

To: John Smith, PM&E
Holly Spoth-Torres, Municipality of Anchorage Parks and Recreation
Troy Duffin, Alpine Trails Inc.

From: Kevin Doniere

Date: September 26, 2006

Subject: Stakeholder/Technical Advisory Group/Far North Bicentennial Park
User Group Meeting Notes

W.O. D59344

On September 11 and 12, DOWL Engineers (DOWL) and Troy Duffin (Alpine Trails Inc.) conducted a series of meetings related to the trail connections across the proposed 48th Avenue road corridor. During those two days, the following activities took place related to the trail connections across 48th Avenue and the trails of Far North Bicentennial Park (FNBP):

- A site visit was conducted with Troy Duffin (Alpine Trails Inc.), Municipality of Anchorage (MOA) Parks and Recreation Department representatives (Jeff Dillon, Monique Anderson, Holly Spoth-Torres), John McCleary, and DOWL (Kevin Doniere).
- A Technical Advisory Group (TAG) meeting was held.
- An FNBP User Group meeting was attended, and existing trail location maps and previous planning efforts were presented.
- Stakeholder meetings were held with Heritage Land Bank (HLB), Alaskan Sled Dog and Racing Association (ASDRA), DOWL Road Designer, Nordic Skiing Association of Anchorage (NSAA), Mountain Bike/Single-Track Advocates/Women's Mountain Bike and Tea Society (WOMBATS), and the MOA Parks and Recreation Department.

TAG Meeting

September 11, 2006: DOWL Training Room 1:30 p.m. – 3:30 p.m.

Meeting Attendees:

- Brad Muir, Bureau of Land Management
- Kevin Keeler, Bureau of Land Management
- Lisa Hozapfel, RTCA
- Lori Schanche, MOA Public Works
- Holly Spoth-Torres, MOA Parks and Recreation
- Monique Anderson, MOA Parks and Recreation
- Jeff Dillon, MOA Parks and Recreation
- John McCleary, MOA Parks and Recreation
- Jack Mosby, Alaska Trails, Inc.
- Jim Galanes, HLB Representative
- Troy Duffin, Alpine Trails
- Maryellen Tuttell, DOWL
- Kevin Doniere, DOWL

Meeting Notes

- Elevated roadway is not planned for this project.
- Anchorage Water and Wastewater Utility waterline is proposed for the south side of 48th Avenue extension.
- 140 to 150-foot right-of-way (ROW) for 48th Avenue is planned.

- Separated path on both sides of roadway.
- Arterial roadway classification and posted speed, as stated in Title 21 (land use code), requires a trail or sidewalk on both sides of the roadway.
- Trail requirements/linkages in this project area are:
 - Campbell Creek Trail
 - Tour of Anchorage (TOA) Trail
 - ASDRA Trails
- Chuck Albrecht Ball Fields: a minimum of one field would be impacted because of the proposed road alignment (according to Jeff Dillon, these four fields cost approx. \$2 to \$3M to construct).
- Is there a potential to share trails and uses (could ASDRA and the ball fields co-exist in the same location?).
- East Anchorage and FNBP need trailheads on this side of the park.
- TAG is established to determine the size of crossings for pedestrians, and if multiple crossings are need, it was suggested that sizes of the crossings would use the information gathered from the Abbott Loop Extension (ALE) project--in terms of bridge heights for wildlife crossing under bridges.
- 48th Avenue will have a 45 mph design speed; minor arterial road as per the Long-Range Transportation Plan (LRTP) and Official Streets and Highway Plan (OSHP).
- Is there a potential to save the ball fields by curving the road alignment around the fields?
- Multiple users in the upland area between the two existing wetlands (south of 48th Avenue); can ASDRA trailhead and summertime trailhead be in the same location?
- Discussion about making the Campbell Creek Trail and the TOA Trail one trail on the north side of 48th Avenue; everyone thought it was reasonable.
- Aesthetic appeal of the 48th Avenue and Tudor Centre Drive connection is important to the trail user to keep the rural trail feel consistent with the existing Campbell Creek Trail and the TOA Trail.
- Bragaw/Tudor curved bridge: is this bridge staying or are there development (road widening) pressures?
- For trail underpasses, can a design of the roadway implement snow shields to deflect roadway snowplowing from ruining the trail below?
- Road in tunnel or depressed at upland to create overpass for trail users and potentially wildlife?
- Is one trail connection desirable, if made wide enough, for the use of both wildlife and trail users?
- Should multiple areas of crossing the roadway be established for both wildlife and trail users (pedestrians)?

- Develop or incorporate a picturesque bridge for the trail user crossing over the roadway...an example is Kincaid Park's new bridge over the main entry road (cost of bridge is approximately \$1.7M--included utilities).
- Trails on both sides of 48th Avenue:
 - South side of 48th Avenue - trail separated from roadway; best character/aesthetic; both for transportation and recreation.
 - North side of 48th Avenue - continuous sidewalk, mainly for pedestrian use; not bikes or skiers.
- Recreational functional diagram should be created for the upland area between the two wetlands and south of 48th Avenue; Jeff Dillon suggested creating this and thought a trailhead and/or community park should be looked at in this area.
- Mitigation: hardening of trails in East Anchorage (Tank Trail) to prevent many more trails that are created socially (bandit trails).
- Bigger picture: Will there be more and more conflict with the different trail users in the future? Will we want each user group to have their own separate trails?

FNBP User Group Meeting Notes

September 11, 2006: Campbell Creek Science Center

- Use upland area as nice northern entryway into FNBP.
- Road is opening up new area and will increase access to FNBP, so do it right.
- Mitigate trail impacts in 48th Avenue area by improving trail connections out Tudor in the Muldoon curve area.
- Look at Boniface trail connections.
- Different users have different needs/desires--can cause conflicts.
- Trail hardening issues.
- Would be okay to combine Campbell Creek bike trail and ski trail; not mushers.
- Mushers feel that they have been adversely impacted by previous projects.

Stakeholder Meeting Notes

September 12, 2006: DOWL Training Room

HLB: 9 a.m.

(Attendees: Karlee Gaskill, Art Eash, Jim Galanes)

- Currently, there is no deal with ASDRA on a land trade (lease of land to the south of 48th Avenue and to the east of the existing Chuck Albrecht Ball Fields in exchange for ASDRA Tozier Track land).

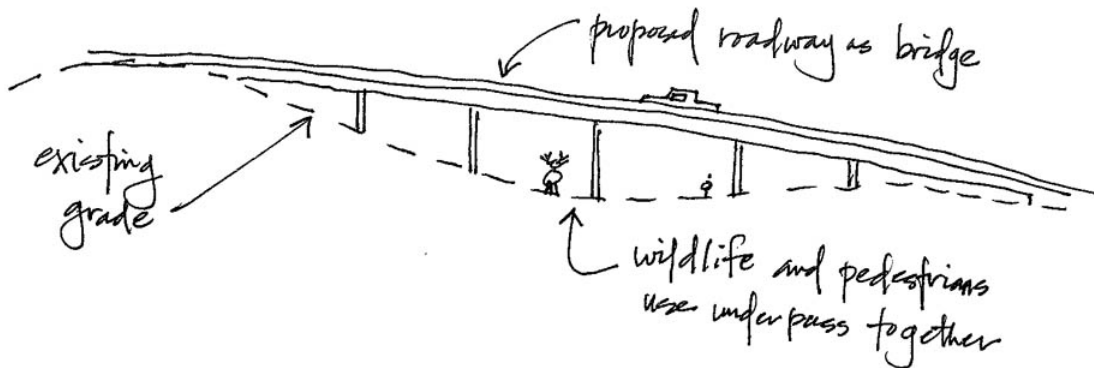
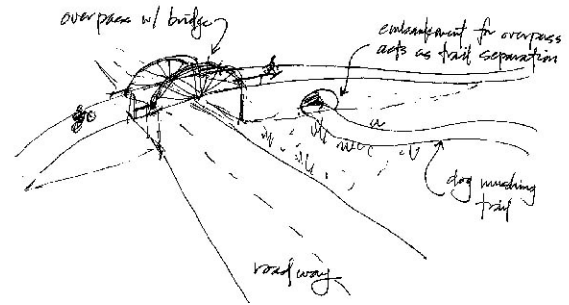
- Define a trail easement or a trail corridor in which the trail would be located (on the north side of 48th Avenue).
- Use the upland areas to make it easier to construct trails and/or a trail overpass.
- Relocatability: allow the trail to move around as future development occurs; create a floating trail easement that has to be in place on the north side of 48th Avenue and on the west side of Tudor Centre Drive that allows the trail to be realigned when development mandates--make it the responsibility of the developer to relocate (build) the trail.
- Is there a need to connect a trail from Tudor Centre Drive over Tudor Road to continue onto the trail under the power line at University Lake?
- Agreement should be made between HLB and MOA Parks and Recreation Department--plat note; floating easement, one-quarter mile easement through the development to move the trail when needed.
- Bike connections: create bike lanes on both sides of Tudor Centre Drive as it connects 48th Avenue to Tudor Road.
- Other separated grade crossing over Tudor Road, other than the existing curved bridge at Tudor and Bragaw?

ASDRA: 10 a.m.

(Ken Ford, Susan Wagnon)

- ASDRA has an established set of trail standards and will send that to DOWL.
- Junior Loop needs to be accommodated (two dog loop; becoming popular division).
- Move all ASDRA trails to the south of 48th Avenue proposed alignment.
- ASDRA recognizes that sled dog racing is an incompatible use with all other users (need to be separated from all other users).
- Low snowfall has added to unlevel trails not getting used because of them being unsafe; consistently wet or consistently dry (upland) areas are best for racing/trails; hummocky, lumpy trails are unsafe and damaging to sleds.
- ASDRA is concerned that if the upland area to the south of 48th Avenue is developed into ball fields or a community park, then their trails will not spatially fit into that area.
- Construction methodology: build trail by chainsaw.
- Conflicts/separation: ASDRA thought that it was okay to have users on their trails in the summertime; they want to avoid summertime users getting used to the sled dog trails and then using them in the winter; they feel once a different user is utilizing their trails in the summer, then they see a reluctance to give up that trail in the wintertime.
- Sled dog trails need an open line of sight, at-grade crossings should be at 90 degree angles (separated crossing preferred), and signage.
- Sled dog racers train at night as well; they do not run at specific times; a lot of sled dog racers run in the evening, so other users on their trails would be a challenge.

- Create a grade-separated crossing of the dog mushing trail in the approaches to the elevated crossing for the multipurpose trail--TOA and Campbell Creek Trail (*see sketch*).
- Nine feet wide is a minimum width for sled dog racing trails.
- ASDRA needs support on trail construction; if trails are realigned, then the planning and construction should be a part of this 48th Avenue road project; ASDRA representatives would like to be involved in flagging and helping locate trails out on site, but would prefer that the construction is done by others.
- ASDRA has an annual budget of \$12,000.
- The State of Alaska Department of Transportation and Public Facilities (DOT&PF) maintenance road (going back to the storage yard/antenna farm) is a conflict area with the Outgoing Trail crossing over it.
- Snow spray onto sled dog trails has a negative effect on the trail and on the runners of the sleds; the sand, gravel, and dirty snow from the roads above become areas of trail that takes the wax off the runners of the sleds (potentially damaging the sled runners).
- ASDRA needs at least 16 miles of trails to continue racing in this area (FNBP).
- FNBP is unique because it provides a trail system that provides for all classes of dog mushing.
- Work with the existing grade and create a bridge that has all trail crossings happening under this bridge component; wide enough space under the bridge to accommodate crossings for all users (*see sketch*).



DOWL Road Designer: 11 a.m.

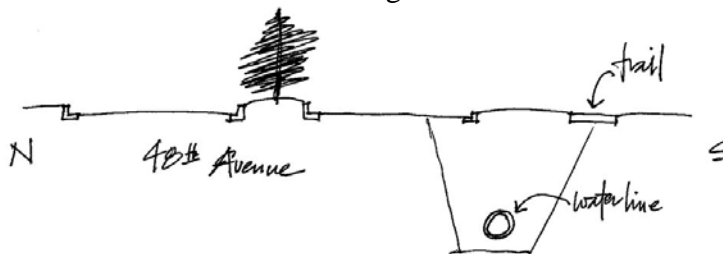
(Stewart Osgood, DOWL)

- Stewart acknowledged that some sort of overpasses and underpasses will be part of the 48th Avenue extension to accommodate wildlife crossings and non-motorized users.
- Overpasses for non-motorized users must be Americans with Disabilities Act accessible, which adds design constraints and typically drives up the cost.
- Minimum dimensions for mammal crossings are 50 feet wide and 10 to 13 feet high.

- Maybe the ability to combine mammal crossings and ASDRA crossing. ASDRA only plans to use this crossing several days per year per Ken Ford and Susan Waggoner.
- Consideration has been given to making the grade separated mammal crossing and the pedestrian crossing a combined overpass.
- We have not heard from the equestrian community that they need any grade separated crossing ability in this region. Most of their activity seems to be on south ALE.



- Some agency folks are pushing for no sidewalk or separated trail on the south side of 48th Avenue.
- The following crossings are likely, the question is "Where?":
 - Grade separated mammal crossing
 - Combined non-motorized crossing (maybe two)
- In-street bike lanes on 48th Avenue and Tudor Centre Drive are being considered.
- Waterline will probably be placed on the south side of the eventual 48th Avenue ROW, in a location where it would not require complete disruption of traffic if maintenance was needed.
- Some use of elevated boardwalks may be considered to minimize impact on high value wetlands and flood plains.



NSAA: 12 noon

(Gordon Wetzel)

- Important trail connection is the TOA Trail, which is a cross-town connection to Alaska Pacific University (APU), University Lake, Chester Creek Trail, the Coastal Trail, and into Kincaid Park.
- The current overpasses along Northern Lights Boulevard are too narrow for their grooming equipment (they have 10-foot-wide grooming equipment); they usually do two passes of the trail with their grooming equipment.
- Chester Creek Trail tunnels are too narrow and must be filled with snow by volunteers; also in the springtime, the tunnels become icy and dangerous--the ice must be broken up in spring.
- The Hilltop Ski area is where the grooming equipment for this area is staged.

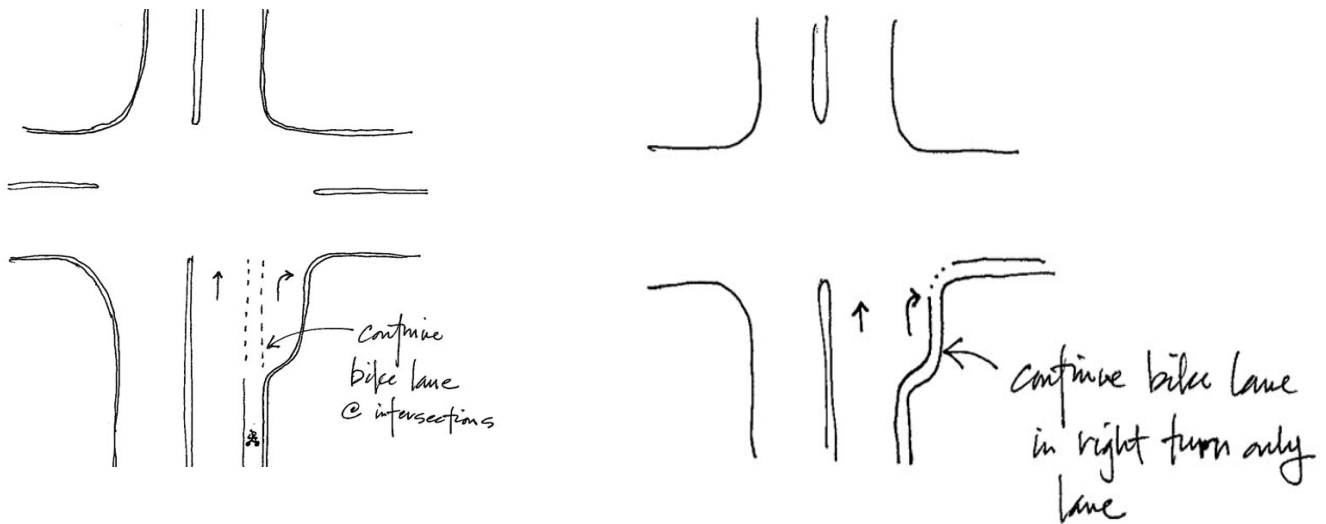
- Best-case scenario overpass for skiing and grooming would be a 10-foot-wide groomed trail with a 4-foot lane to set tracks (for diagonal skiing).
- There is about eight kilometers of lighted trails on the Hillside trails, and the NSAA is planning on lighting the trail from the South Bivouac Trailhead to the Hillside trails; there is a need for more lighted trails.
- The realignment of the TOA Trail is fine; there just needs to be a connection from the FNBP ski trails to the existing curved bridge at Tudor Road and Bragaw Street.
- Gordon considered the TOA trail from the second bridge (the second bridge refers to the second bridge crossing of the Campbell Creek along the TOA trail when coming from Tudor Road) to Tudor Road as substandard (tree roots; too bumpy).
- The ideal specification for materials on a ski trail is grass, but that is unrealistic--so the most ideal for the use of our trails and the climate is gravel (rounded gravel with some fines); E-1 gravel was used on Viewpoint Trail and that has been very successful (locked into place and water still gets through).
- Skiers have conflicts with equestrians (horses), skijoring, and loose dogs, but Gordon realized that everyone has those conflicts and is willing to live with them.
- Separate equestrian trails need to be established somewhere in FNBP (provide a loop at Lore Road).
- Abbott Loop Community Park trailhead would be an ideal location for a beginner skier loop--terrain is interesting; ALE will increase the use of trails in this area.
- Future connection along Gasline Trail to Chugach State Park has been talked about and would be a good connection into the State Park from the Hillside trails.
- Gordon noted a need to have a trailhead and entry point along this northern portion of FNBP.
- In the long-term, it would be good to have grade-separated crossings for mushing trails.
- Need a comprehensive signage system on trails.
- This area is not very interesting related to skiing because of its flat nature; this area of FNBP is mostly for trail connections--trails cross through this area to make connections to larger trail networks.
- Equestrians use Lore Road Trail and Birch Meadow Trail to access Old Rondy Trail. They usually do short rides on these in the winter.
- Old Rondy Trail is main artery through FNBP and is getting congested, which increases conflicts.

Single-Track Advocates/WOMBATS/Mountain Biking: 2 p.m.

(Rosemary Austin, Tim Woody, Ed Kamienski, Janice Power)

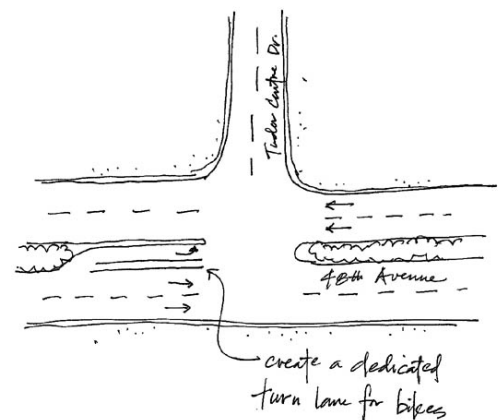
- Roadway Issues:
 - Continue the 6-foot-wide bike lanes coming from ALE onto the 48th Avenue and Tudor Centre Drive roadways (on both sides of proposed roadways).

- There needs to be more education on rules of the road and how cyclists are supposed to be one of the modes of transportation on the roadway.
- Signage could be incorporated (related to an ordinance would be the best way to incorporate signage; such as sharing the roadway--give an example of an ordinance that requires cars to give bicyclists a 3-foot buffer).
- Striping is also important to educate the general public.
- Do not have bike lanes disappear at the intersections. Do not run them up onto the sidewalk/trail; this does not work well for bicyclists (visibility of traffic is reduced when going away from traffic up to the sidewalk/trail) (see sketches).



If there is a dedicated turn lane at Tudor Centre Drive and 48th Avenue going north, then consider putting in a dedicated bike turn lane (see sketch).

- One of the biking/mountain biking community members is interested in being a part of a Citizens Advisory Committee or being on the TAG for 48th Avenue; DOWL committed to talking with the MOA about a representative from the biking/mountain biking community playing a role in the review of drawings or consulting on design issues.
- Keep the Campbell Creek Greenbelt Trail with the same aesthetic as it currently has--wooded, meandering, rural trail; is there a potential to cross the Campbell Creek Trail near the ball fields and be on the north side of 48th Avenue and connect into the existing Campbell Creek Trail?



- Gateways or trailheads need to be created for FNBP along this roadway and northern portion of the park; the DOT&PF maintenance facility could be major trailhead.
- Sharing the trail--there is a willingness of the biking community to share trails (width is the key).