

4.0 TRAIL IMPROVEMENTS PLAN

The FNBP Trail Improvements Plan consists of three sections: Trail Classifications, Trail Design Parameters/Guidelines, and Trail Improvements Plan Projects.

4.1 Trail Classifications

Different options for classifying trails in FNBP were considered. It was determined that using an existing system, such as the USFS Trail Classification System, would benefit the project, land and trail managers, and the community of trail users in Anchorage. The NPS, State Parks, and BLM have adopted or are in the process of adopting this method because of its thorough process for assessing trail conditions and planning for long-term trail management and maintenance. With some of those landowners abutting FNBP, it makes sense to have a consistent standard for trail classifications between these properties.

4.1.1 Trail Classes 1- through 5

The USFS trail classification system has five different trail classes related to the trail experience or character of the trail. The five trail classes span the spectrum of trails from an urban, asphalt-paved trail that can be up to 10 feet wide to a narrow trail or route that goes up a mountain peak that has no distinguishable trail tread. These are the extremes of the trail classification system and rarely occur in FNBP. The USFS Trail Classification System and the related trail characteristics for each trail class are listed below (Figures 14, 15, and 16).

- Trail Class 1 - Minimal/Undeveloped Trail (Figure 14)

These trails are considered primitive with often narrow, steep, and indistinct traces. They are built from only native materials with obstacles such as rocks, logs, and brush overhanging the trail. There are no constructed features like bridges or foot crossings. The trail drainage functions without any erosion issues. Signage is minimal and generally limited to regulation and resource protection, so users may require route finding. Typically, these are social trails that do not play a significant role to the integrity of the trail network. These trails were not assessed and will not be maintained by MOA P&R.

- Trail Class 2 - Simple/Minor Development Trail (Figure 14)

Trails within this class have a discernible and continuous tread, though they are narrow and rough. These trails are built with native materials. Blockages, such as downed trees, are cleared to define the route and protect resources, yet obstacles are occasionally present and vegetation may encroach into the trail. Structures are limited, though adequate to protect trail infrastructure and resources. The trail drainage functions well and only primitive foot crossings and fords are used. Signage for these types of trails is minimal, generally limited to regulations and resource protection. There are typically very few or no destination signs on these trails.

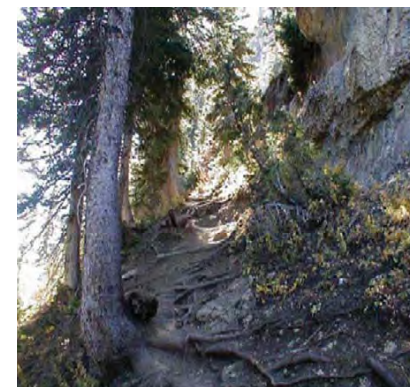
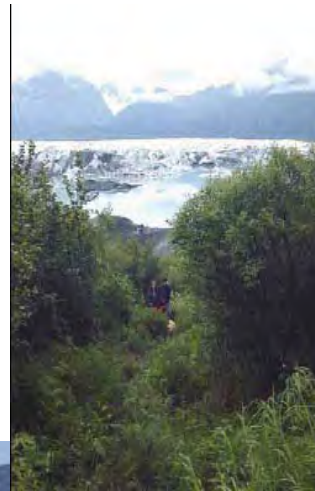
- Trail Class 3 - Developed/Improved Trail (Figure 15)

Class 3 trails are obvious, continuous, and wide enough to provide for unhindered one-lane travel with occasional allowances for passing. There are few obstacles and vegetation is cleared outside of the trail way. Trail structures (walls, steps, drainage, raised trail sections) may be common and substantial with bridges provided as needed for resource protection and to maintain appropriate access. Generally only native materials are used. Directional and destination signage are typically present with informational signs often provided.

TRAIL CLASS 1

TRAIL CLASS 2

FAR NORTH BICENTENNIAL PARK



CLASS 1 FEATURES

- Tread intermittent and indistinct.
- Obstacles continuous.
- Constructed features minimal to non-existent.
- No destination signs present-limited to regulation, junction, and resource protection.

CLASS 2 FEATURES

- Tread discernible and continuous, but narrow and rough.
- Obstacles occasionally present.
- Structures are of limited size, scale and numbers.
- Minimal signage for basic direction, generally limited to regulation and resource protection.



Figure 14



TRAIL CLASS 3

TRAIL CLASS 4

FAR NORTH BICENTENNIAL PARK

CLASS 4 FEATURES

- Tread is wide and relatively smooth with few irregularities.
- Few or no obstacles exist, grades typically less than 12%, vegetation cleared outside of trailway.
- Constructed features/structures are frequent and substantial. Substantial trail bridges are appropriate at water crossings.
- Wide variety of signs present-informational and possibly interpretive.

CLASS 3 FEATURES

- Tread obvious and continuous.
- Obstacles infrequent. Vegetation cleared outside of trailway.
- Trail structures (walls, steps, drainage, raised trail, boardwalk) may be common and substantial.
- Directional signs at trail junctions.

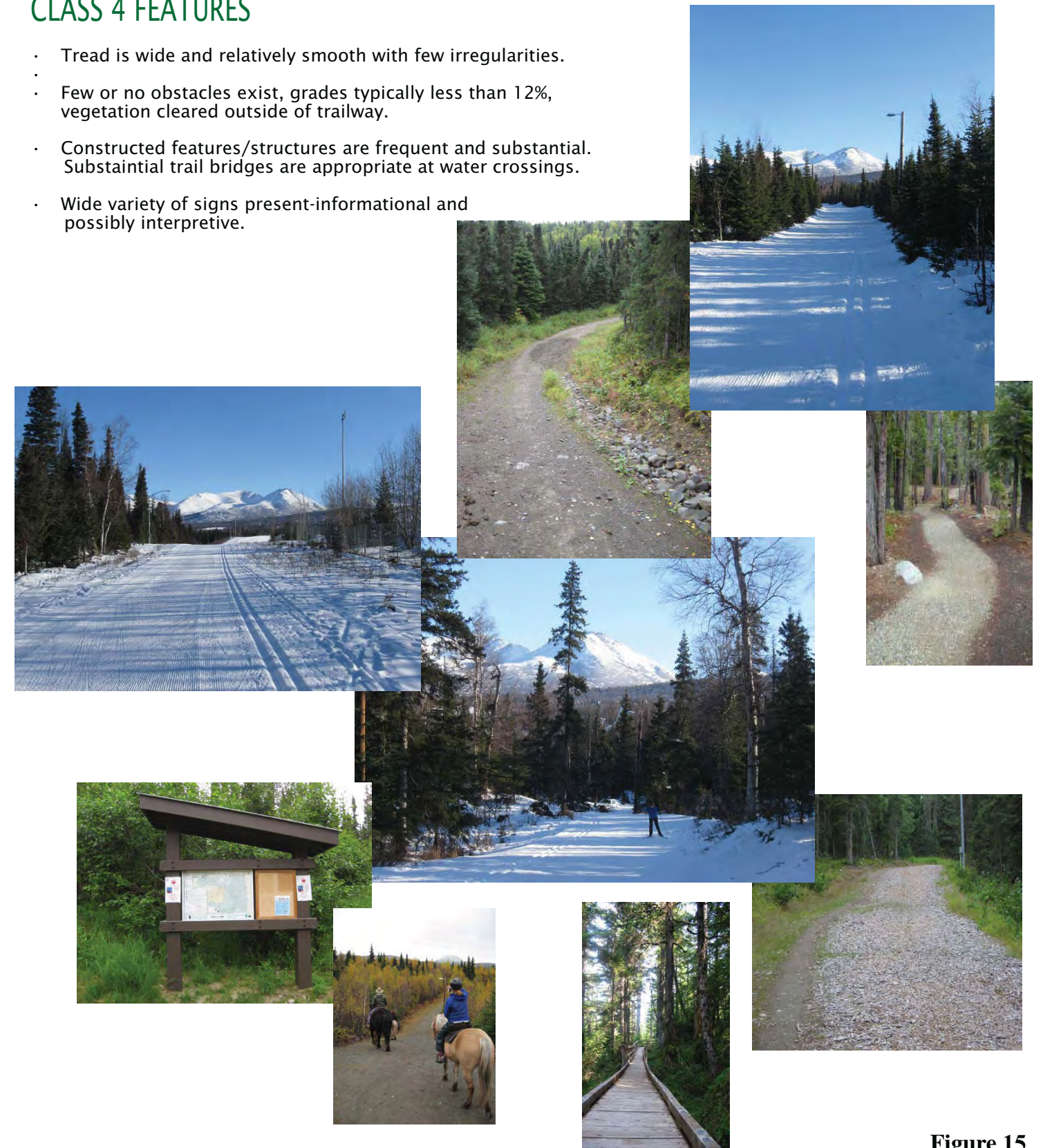
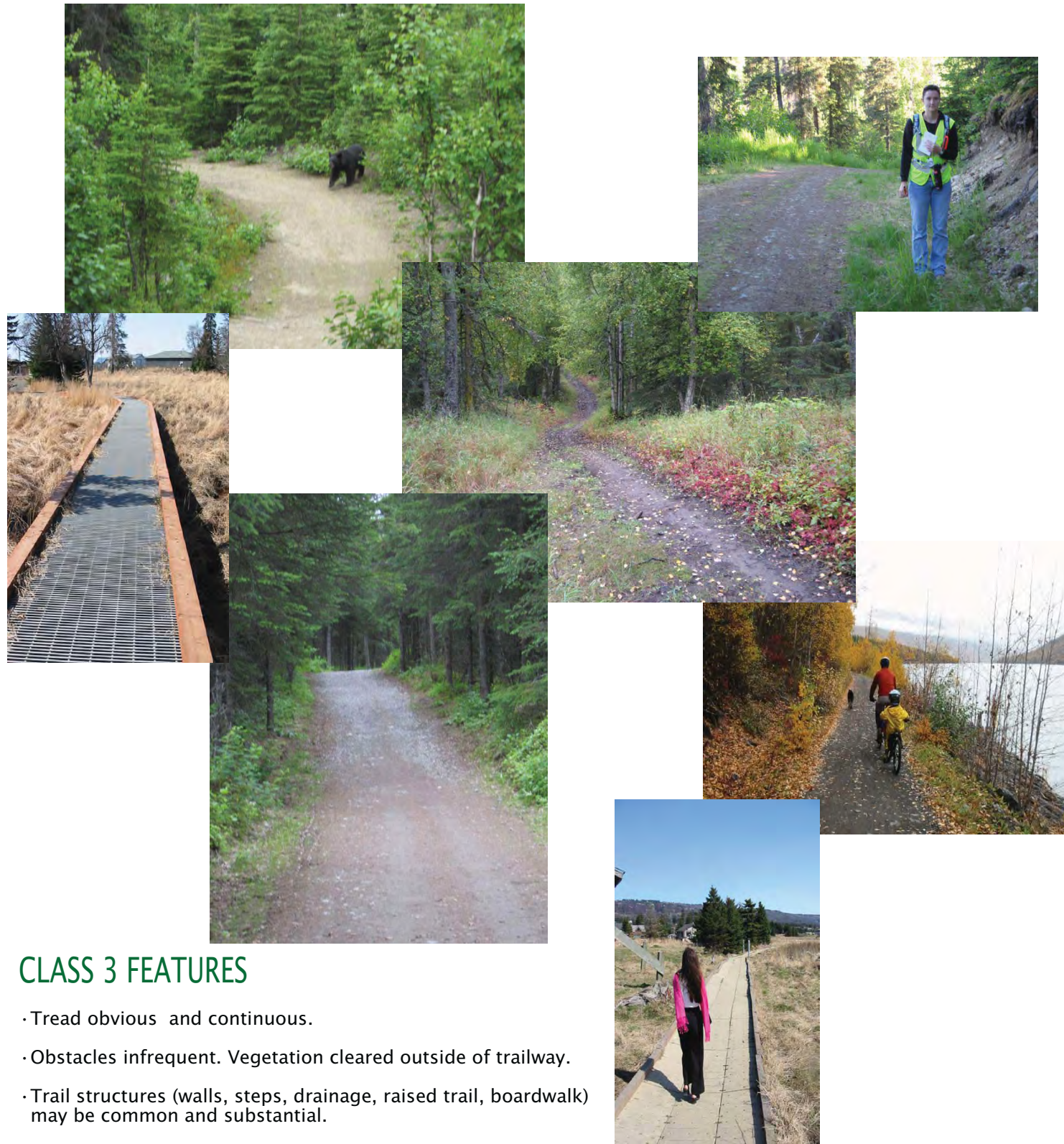


Figure 15



TRAIL CLASS 5

FAR NORTH BICENTENNIAL PARK

CLASS 5 FEATURES

- Tread of trail is commonly hardened with asphalt or other imported material.
- No obstacles, grades typically less than 8% for accessibility.
- Constructed features/structures are frequent or continuous - curbing, handrails, trailside amenities, and boardwalks.
- Wide variety of signage - informational and interpretive.

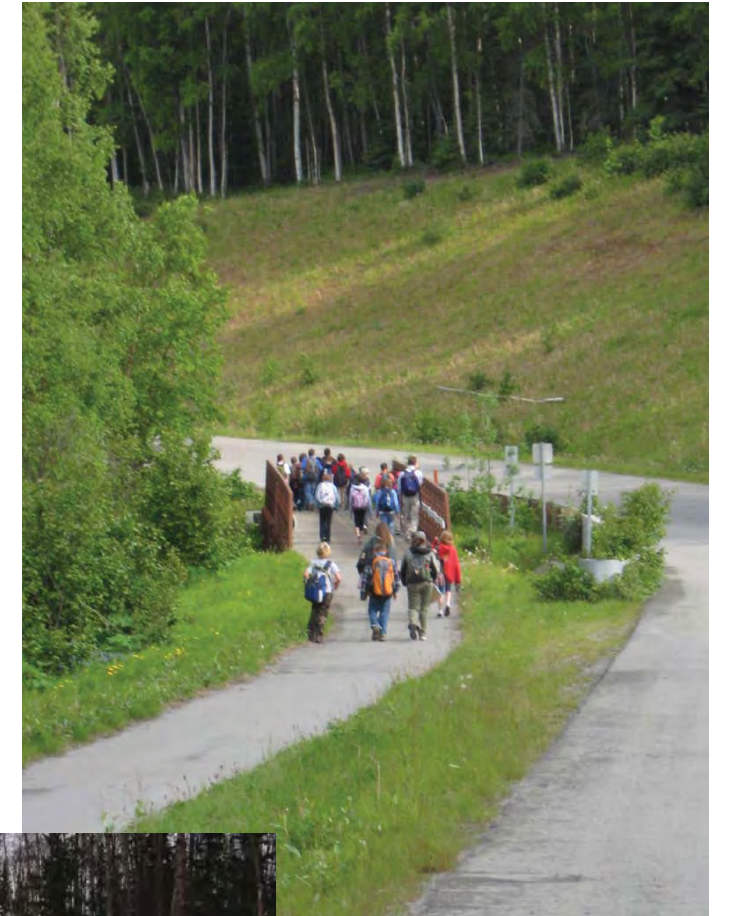


Figure 16



- Trail Class 4 - Highly Developed Trail (Figure 15)

This class of trail is relatively wide and smooth with grades typically below 12 percent. They can accommodate two-way travel. Obstacles are rare and vegetation is cleared outside of the trail way. They can be constructed from both native and imported materials and are often hardened, but not paved. Structures are frequent and substantial trail bridges are appropriate for water crossings. Trailside amenities may be present and a variety of signage is often used, including informational and interpretive signs. Trail Universal Access information is likely to be displayed at trailheads.

- Trail Class 5 - Fully Developed Trail (Figure 16)

Class 5 trails are wide, flat, and smooth. They generally can accommodate two-lane and two-directional travel, or frequent passing turnouts are provided. These trails are commonly hardened with asphalt or other imported material. No obstacles are present, and grades are typically less than 8 percent. Frequent structures may include curbs, handrails, trailside amenities, and boardwalks. Drainage structures are present and often include road-like design features, such as culverts. A wide variety of signage is present, including informational and interpretive signs. Trail Universal Access information is typically displayed at trailheads.

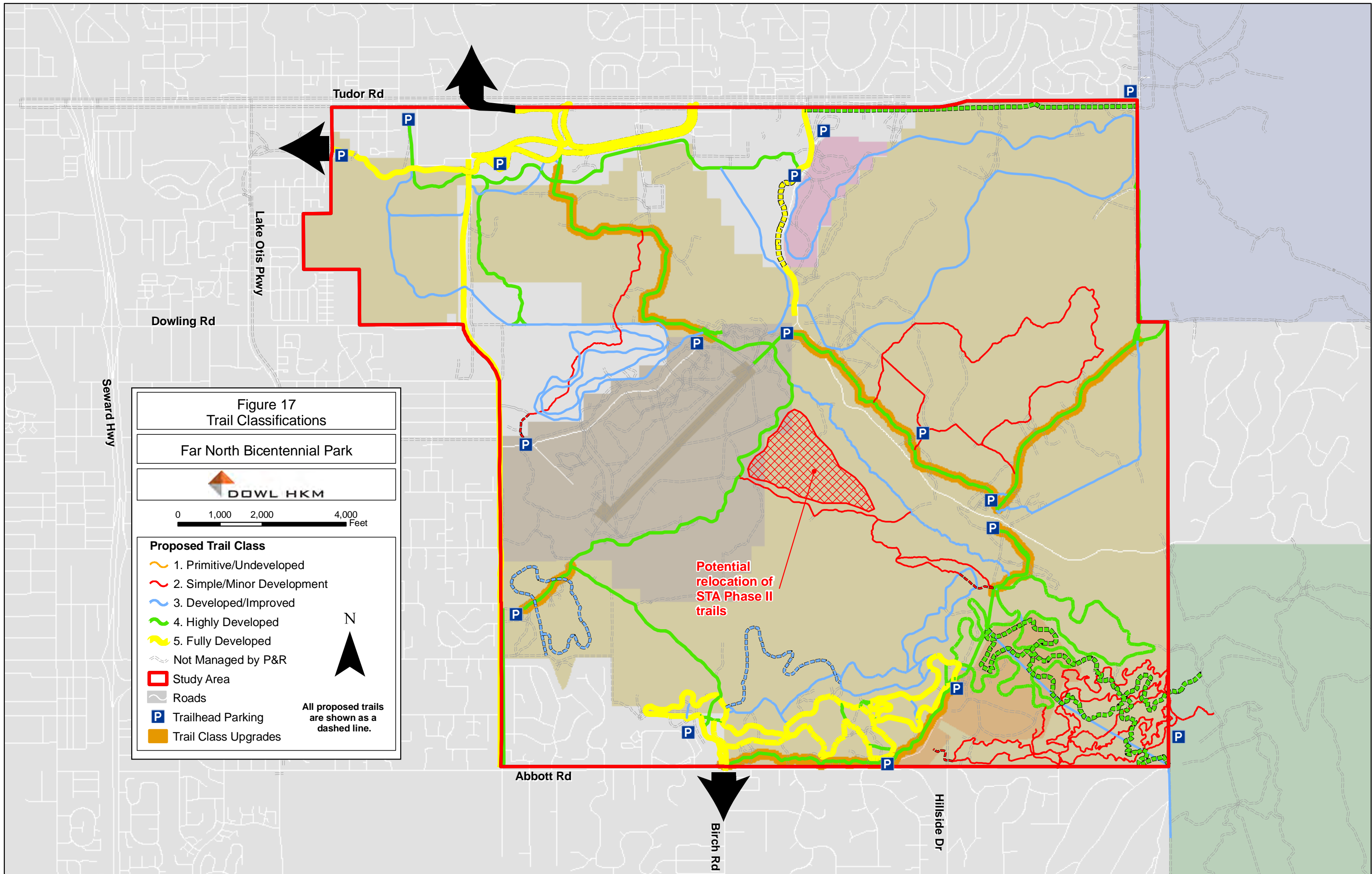
4.1.2 How Far North Bicentennial Park Trails Were Classified

An adapted version of the USFS TRACS system was used by MOA P&R this past summer to collect and complete an inventory and analysis of FNBP trails. There is a basic understanding of the existing trails in FNBP and each trail's experience. The Trail Improvements Plan has suggested changes to only a few of the existing trails in order to meet some of the larger goals of improving trails to reduce user conflicts, to upgrade trails based on their intended uses, and provide major connections to different areas of FNBP from the surrounding neighborhoods. Most of the existing trails will retain the same trail character that exists today, with a few minor exceptions.

Each trail was given a trail classification based on the trail's intended use (Figures 17 and 18). The trail's highest impact user defines the design parameters/guidelines used for the development of that specific trail. It is important to note that the trails were classified based on the goal for these trails in the future. A specific trail class was given to each trail based on the design use and desired managed use of the trail. It is also important to note that by having a defined trail class for each trail, it helps define the maintenance required for each trail. Table 3 presents information on the mileage of trails associated with each trail classification.

Table 3: Trail Classes and Mileage

Existing Trails		Proposed Trails	
Trail Class	Total Length (miles)	Trail Class	Total Length (miles)
TC1	0.0	TC1	0.00
TC2	18.00	TC2	20.89
TC3	22.58	TC3	22.51
TC4	23.27	TC4	26.48
TC5	9.15	TC5	12.68
Totals	73.00	Totals	82.56



EXISTING AND PROPOSED TRAIL CLASSES

#	Trail Name	Trail Classification		Designed Use*	Managed Use	Prohibited Use
		Existing	Proposed			
	Existing Trails					
1	2.5 Km Loop (see New Multi-Use Connector Trail)	2	2	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
2	3 MileTrail	3	3	Dog Sled	Dog Sled	All Non-Motorized Users Except Dogsled
3	4.5km Loop (see New Multi-Use Connector Trail)	2	2	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
4	Abbott Trail	3	4	Skijor	Hiker/Pedestrian, Equestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
5	Abbott Trail Connector	3	3	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
6	Alternate Besh Connection	4	4	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
7	Ann's Alley	3	3	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
8	Beaver Dam Trail	3	3	Dog Sled	Dog Sled	All Non-Motorized Users Except Dogsled
9	Besh Lighted Loop	5	5	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
10	Besh Short Cut	4	4	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
11	Birch Knob - BLM	4	4			
12	Birch Meadow Trail - BLM**	4	4			
13	Birch Road Trail	5	5	Skijor	Hiker/Pedestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
14	Black Bear Trail	2	2	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
15	BLM Ridge Loop	3	3	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
16	Blue Dot Trail	2	2	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
17	Bog Trail	3	3	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
18	Brown Bear Trail	2	2	Bicycle	Bicycle	Equestrian, Dogsled
19	Campbell Airstrip Loop - BLM**	4	4			
20	Campbell Creek Trail	5	5	Skijor	Hiker/Pedestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
21	CCSC Spur - BLM**	4	4			
22	Coaches Cutoff	4	4	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
23	Coyote Spur - BLM**	4	4			
24	Coyote Trail - BLM**	4	4			
25	Double Bubble	4	4	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
26	Firebreak Trail - BLM**					
27	Gasline Connection	4	4	Skijor	Hiker/Pedestrian, Equestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
28	Hillside Connector	4	4	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
29	Hillside Lighted Loop	5	5	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
30	Hillside Link	4	4	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
31	Homecoming Trail	3	3	Dog Sled	Dog Sled	All Non-Motorized Users Except Dogsled
32	Homestead Trail	3 & 4	4 & 4	Skijor	Hiker/Pedestrian, Equestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
33	Inner Loop - BLM**					
34	Junior Nordic Loop	5	5	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
35	Link to 2.5 km Loop	2	2	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
36	Llama Trail	2	2	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
37	Llama-Spencer Connector	2	2	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
38	Lore Road Trail - BLM**	4	4			
39	Lynx Trail - BLM**	4	4			
40	Mellen's Way Trail (Re-route)	3	3	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
41	Moose Meadow Trail	2	2	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
42	Moose Ridge Link	2	2	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
43	Moose Ridge Loop	2	2	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
44	Moose Track Trail - BLM**	4	4			

Notes:

trail name = Trails receiving a change in Trail Class; refer to Figure 17: Trail Classifications

* Designed Use - refer to Figures 19 - 25 for trail design parameters

Designed Use = the designed use will define what design parameter is used for trail maintenance, management, and new construction (if a new trail); generally, this is determined by the trail user with the most stringent design parameters.

** BLM Trails are included for informational purposes only. BLM maintains and manages trails within their property.

Trail Name	Trail Classification		Designed Use*	Managed Use	Prohibited Use
	Existing	Proposed			
Muldoon Swamp	3	3	Dog Sled	Dog Sled	All Non-Motorized Users Except Dogsled
Multi-use To Gasline	3	3	Skijor	Hiker/Pedestrian, Equestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
New Multi-Use Connector Trail (combined 2.5/4.5km loops)	3	4	Skijor	Hiker/Pedestrian, Equestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
North Gasline Trail	3 & 4	3 & 4	Hiker/Pedestrian	Hiker/Pedestrian (Off Leash Dog Walking Area)	Dogsled
Old Rondy Trail	3	4	Skijor	Hiker/Pedestrian, Equestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
Outgoing Trail	4	4	Dog Sled	Dog Sled	All Non-Motorized Users Except Dogsled
P-38 Lightning Trail - BLM**	4	4			
Randys Connector	3	3	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
Randy's Loop	5	5	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
Richter Hill Bypass	3	3	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
Richter Link Trail	3	3	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
Richter Loop	3	3	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
Rondy Cut-off Trail	4	4	Dog Sled	Dog Sled	All Non-Motorized Users Except Dogsled
Salmon Run - BLM**	4	4			
Service High Link	4	4	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
Shields Trail	3	3	Dog Sled	Dog Sled	All Non-Motorized Users Except Dogsled
Singletrack Trails-Drone Lane	2	2	Bicycle	Hiker/Pedestrian, Bicycle	Equestrian, Dogsled
Singletrack Trails-Queen Bee Loop	2	2	Bicycle	Hiker/Pedestrian, Bicycle	Equestrian, Dogsled
Singletrack Trails-Janice's Jive	2	2	Bicycle	Hiker/Pedestrian, Bicycle	Equestrian, Dogsled
Singletrack Trails-Stinger	2	2	Bicycle	Hiker/Pedestrian, Bicycle	Equestrian, Dogsled
Singletrack Trails-The Hive	2	2	Bicycle	Hiker/Pedestrian, Bicycle	Equestrian, Dogsled
Singletrack Trails-Yellow Jacket	2	2	Bicycle	Hiker/Pedestrian, Bicycle	Equestrian, Dogsled
Singletrack Trails-Horner's Nest	2	2	Bicycle	Hiker/Pedestrian, Bicycle	Equestrian, Dogsled
Six Mile Connector Trail - BLM**					
Smokejumper Loop - BLM**	3	3			
South Bivouac Trail	4	4	Skijor	Hiker/Pedestrian, Equestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
South Gasline Trail	4	4	Skijor	Hiker/Pedestrian, Equestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
Spencer Loop	4	4	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
Spencer Short Cut	3	3	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
Spencer-Gasline Connector	3	3	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
Tank Trail	3 & 4	4 & 4	Skijor	Hiker/Pedestrian, Equestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
Upper Gasline Trail	3	3			
Viewpoint Trail - BLM**	4	4	Skijor	Hiker/Pedestrian, Equestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
Woodway Loop	2	2	Dog Sled	Dog Sled	All Non-Motorized Users Except Dogsled

Paved Trail-Rendezvous to CA TH	n/a	5	Skijor	Hiker/Pedestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
New Classical Ski Loop	n/a	3	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
New Trail Loop from ALCP	n/a	3	Nordic Skiing	Nordic Skiing	9/15-6/1: Hiker/Pedestrian, Equestrian, Bicycle, Snowshoe, Skijor All Year: Dogsled
Multi-Use Connector to CSP	n/a	4	Skijor	Hiker/Pedestrian, Equestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled
Blue Dot Trail Connector	n/a	2	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
Singletrack Trails Phase II	n/a	2	Bicycle	Hiker/Pedestrian, Bicycle	Equestrian, Dogsled
Black Bear Trail Connector	n/a	2	Equestrian	Hiker/Pedestrian, Equestrian, Bicycle	Dogsled
NE Park Trail Connector	n/a	4	Skijor	Hiker/Pedestrian, Equestrian, Bicycle, Nordic Skiing, Snowshoe, Skijor	Dogsled

Figure 18

4.2 Trail Design Parameters/Guidelines

These Trail Design Parameters/Guidelines are to be used as guidelines, not as strict requirements, for either building new trails or for designating existing trails. These parameters or guidelines provide trail users the understanding of what the expected trail experience will be and help “guide” the design, construction, and maintenance of both existing and proposed trails.

Clear and definable design parameters based on a trail’s classification were developed for new trail development and existing trail maintenance within FNBP. There are (5) five trail classes for each designed use. However, in each designed use the specific design parameters vary under each trail class. Seven different trail designed uses have been addressed in this Trail Improvements Plan. For each trail designed use, these 5 trail classifications define the type of trail experience expected. Trail design parameters are provided for the following designed uses listed below:

- Hiker/Pedestrian
- Equestrian
- Bicycle
- Nordic Skiing
- Dog Sledding
- Skijoring

Common design parameters exist between the different designed uses. The trail’s tread width, the surface, the grade, the cross-slope, the clearing, and the turns (radius) are identified for each trail class, no matter the designed use. For example, the design parameters for both the Bicycle and Nordic Skiing designed use have tread widths, cleared widths, and turn radii specified. However, a Trail Class 2 for bicycling has a tread width of 12 to 24 inches, is cleared 36 to 48 inches wide, and has a turning radius parameter of 4 to 6 feet. In contrast, a Trail Class 2 for cross-country skiing has a 3- to 4-foot tread width, a cleared width of 4 to 6 feet, and turns with radii between 8 and 10 feet. Even though the trail classifications are the same (Trail Class 2), an entirely different trail experience can be expected on a Class 2 Bicycle trail versus a Class 2 Nordic Ski trail.

The design parameters in this plan are based on the USFS Trail Design Parameters. The parameters have been modified to fit the needs of the trail users in FNBP and the Anchorage area. New design parameters have been developed for dog sledding and skijoring. Cross-

country skiing, including both diagonal and skating, was modified to fit the unique characteristics of Nordic skiing in Anchorage, and generally follows the USFS design parameters. These design parameters are outlined in the following charts for ease of comparison (Figures 19 through 25). The trail construction and maintenance guidelines are developed in greater detail in Chapter 5.0.

These design parameters apply for user-specific trails. With most of the trails in FNBP being multi-use during the snow-free season, the most stringent designed use will dictate what design parameter will be used. For example, in determining the radius or sight distance for a proposed trail that allows walking, hiking, skiing, biking, and skijoring, the most strict design parameter would apply. In this case, the designer would use the skijor design parameter to incorporate large radii to the turns and clear vegetation outside of the trail providing long sight distances because of the higher standards related to skijoring.