

Project #



FEDERAL RECREATIONAL TRAIL PROGRAM 2020 Equipment Grant Application

1) GENERAL CONTACT INFORMATION:

Grant Applicant (Unit of Government Required):	City of Duluth - Parks
Contact Person:	Jim Shoberg
Contact Title:	Senior Planner/Project Manager
Mailing Address:	411 West 1st Street, Ground Floor, Duluth, 55802
Phone:	218-730-4316
Email address:	jshoberg@duluthmn.gov
<i>If the project has a trail club, organization, or project partner, please include below:</i>	
Organization/Club Name:	Duluth Cross Country Ski Club (DXC)/Spirit Mt Rec Authority
Contact Person:	Dan Maki/ Jody Ream
Contact Title:	DXC President/ Spirit Mt. General Manager
Mailing Address:	DXC - 1346 W Arrowhead Rd, PMB 344, Duluth, MN 55811 Spirit Mt- 9500 Spirit Mountain Pl, Duluth, MN 55810
Phone:	218-590-3593/509-380-4628
Email address:	dnmaki51@gmail.com/jream@spiritmt.com

2) GENERAL PROJECT INFORMATION:

Project Name:	Grand Ave Nordic Center
Project Summary <i>(30 words or less):</i>	The Grand Ave Nordic Center with snowmaking and lighting provides guaranteed skiing opportunities for residents as well as regional competitions.
Project Completion Date:	June 2022
Trail Name:	Grand Ave Nordic Center
Website with Trail Info:	http://www.duluthmn.gov/st-louis-river-corridor/grand-avenue-nordic-center/

3) FINANCIAL INFORMATION:

Grant Request:	\$74,900	Source of Cash Match (describe below in the box next to \$ amount):	Are match funds secured? (Yes/No)	Grant-in-Aid Funds (Yes/No)
Matching Funds <i>(25% match required for purchases <\$75k; = or > \$75k, match is 50%):</i>	\$73,550	Spirit Mountain Authority	Yes	No
	\$			
	\$			
Total Purchase Cost:	\$148,450	(Grant Request + Matching Funds must = Total Purchase Cost)		
If this project has received federal funding through the Enhancements Program or Transportation Alternative Program, please indicate which year the project is programmed for construction?			FFY:	N/A

4) PURCHASE LOCATION:

County Equipment will be Located:	St. Louis
State Legislative (House) District:	7B
State Senate District:	7
State House Representative: (name)	Liz Olson
State Senator: (name)	Erik Simonson
Congressional District:	MN8

5) RECREATIONAL USES FOR EQUIPMENT PURCHASE:

5A) Indicate the existing or proposed uses of the trail under primary use and the secondary recreation uses which will directly benefit from the proposed equipment purchase:		
Primary Use	Secondary Use	
		Walking/Hiking
		Bicycling
		Mountain Bicycling
		Horseback Riding
X		Cross-Country Skiing
		In-Line Skating
		Snowmobiling
		ATV Riding
		Off-Highway Motorcycling
		Off-Road Vehicles (4x4, Jeep, etc.)
		Other (specify):
5B) Describe/Justify how each of the above identified primary and/or secondary trail user groups will benefit from the project. Response required for each identified use above. Letters of support attached to this application for both primary and secondary usage strongly encouraged. See manual for secondary usage criteria.		
Ski trails with state-of-the-art snowmaking and lighting will provide a dependable season-long venue for recreational skiing, youth activities, and regional high school events, including hosting Statewide Nordic finals. The project has become a regional center of activity for cross country skiing by extending the season and enabling skiing when there is inadequate natural snow. All Section 7 High School Nordic ski teams are scheduled to train or compete at the Nordic Center: Ely, Grand Rapids, Cloquet/Esco/Carlton, Two Harbors/Cook County, Hibbing, Marshall, Mesabi East, North Star Academy, Denfeld, Duluth East, Moose Lake, and Mora. The trail provides the first ski trails for the underserved western Duluth neighborhoods below Grand Ave with ADA accessible access and wide trails providing service to all abilities.		

6) EQUIPMENT PURCHASE DESCRIPTION:

Provide a description sufficient enough to understand the purchase. Provide specifications of the equipment for which you are seeking assistance. Include make and model of equipment, as well as an invoice showing estimate of cost as an attachment (see attachment checklist). Use the box below.
Purchase supports build-out of the water pumping/snowmaking facilities for the Nordic Center at Spirit Mountain Recreation Area. The Nordic Center is 2.5km of trail, with snowmaking on 1.5 (0.9 mi) km with the remaining 1.0 km (0.6 mi) of trails relying on natural snow. The center

receives daily grooming and is being heavily used. Additional pump capacity combined with additional snow guns will decrease the time needed to adequately coat the 1.5 km (0.9 mi) snowmaking loop from nearly four weeks to two weeks ensuring early season snow and will also provide snow on an additional 300 meter (0.2 mi) loop for a total of 1.8 km (1.1 mi). Guns are portable to access hydrants at various locations. Hoses are used to extend the reach of the existing hydrants to the additional loops.

Equipment includes one additional primary pump and one snowmaking gun:

Pump: Flowserve (IDP) Model 10EMM 7 stage Vertical Turbine Can Pump powered by a GE Motor Model NOCAT446V. Pump is rated at 1000gpm @ 1215' TDH + 125' suction = 1,340' (580psi) discharge. Motor is rated at 3550 RPM, 460/3/60. 1.15 service factor. Continuous duty. 40C Ambient. WP-1 enclosure. See Attachment C for specification sheet, vendor estimate and Appendix E for Made in America certification.

Snowgun: Standard PoleCat: 3-wheel galvanized turntable chassis with extendable jacks for frame leveling, snow groomer lifting brackets, 10 HP fan, IOHP Hydrovane compressor, 18 nozzle stainless steel heated spray manifold with heated water side center nucleator, heated check valve, 3- valve stainless steel valve manifold with heated 3-way self-draining ball valves, 30 mesh water filter and cam and groove fitting on water inlet, oscillation, halogen flood light, strobe light, manual controls, 100' cord and Hubbell black pin and sleeve plug. See Attachment C for specification sheet, vendor estimate and Made in America certification.

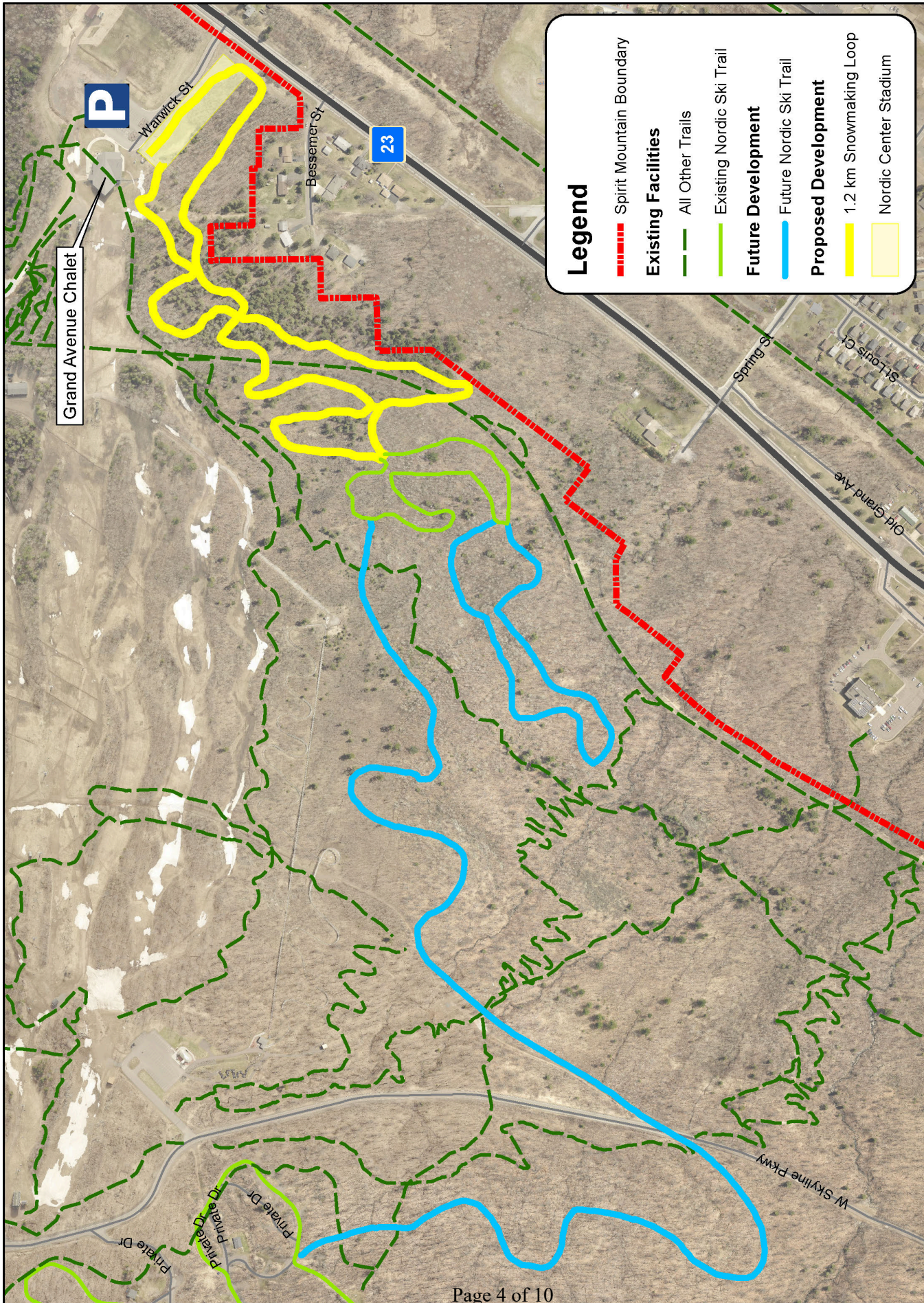


Standard PoleCat

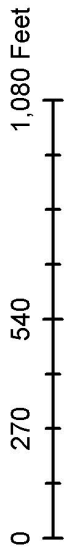
7) EQUIPMENT PURCHASE COST BREAKDOWN:

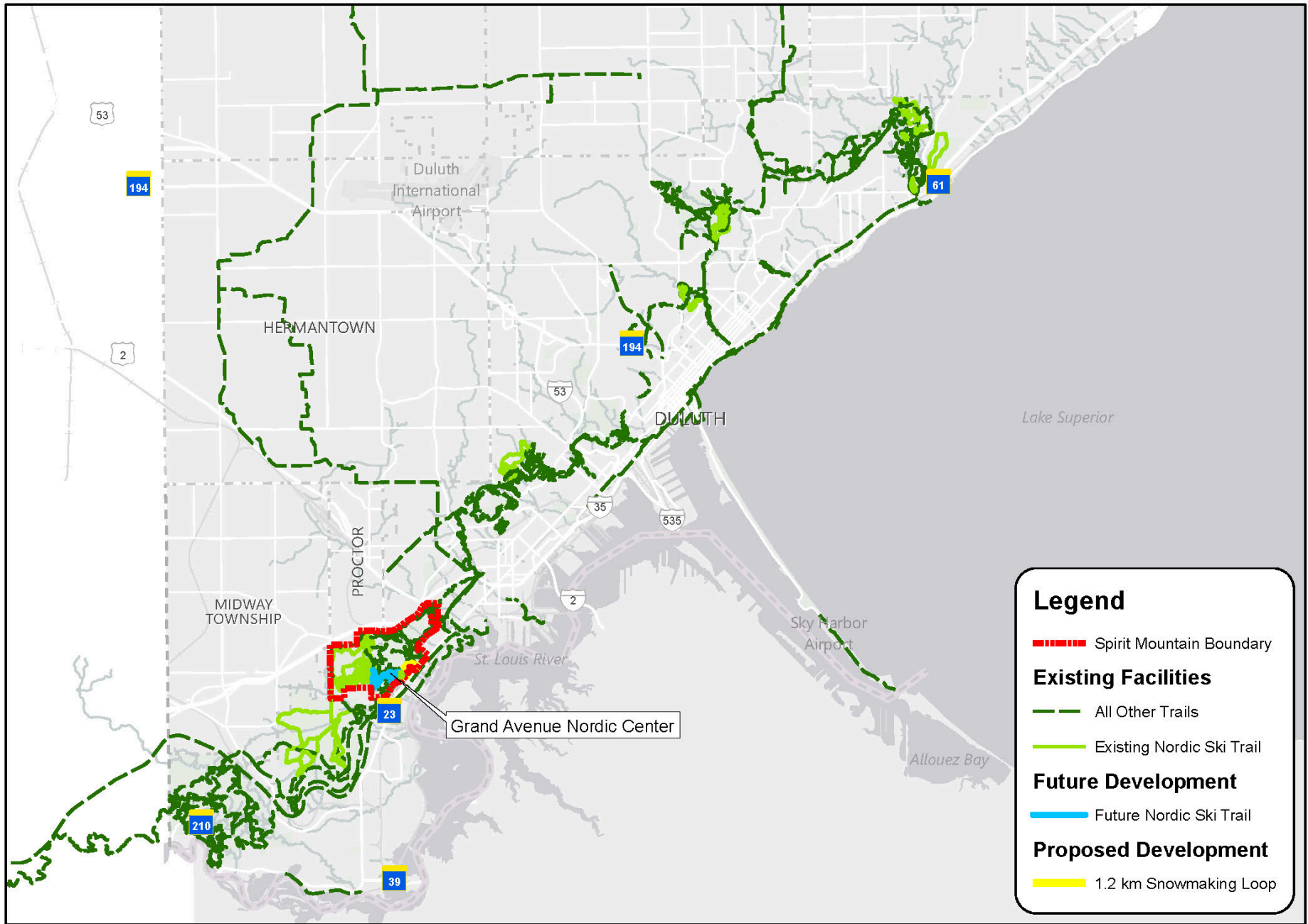
Identify each recreational trail/facility being proposed for funding. Provide a short quantitative description of the purchase, the total estimated cost and the expected purchase date for each piece of equipment. Add or delete rows in the text boxes below as appropriate.

Equipment Name	Description	Estimated Cost	Expected Purchase Date
Flowserve Model 10EMM 7 stage pump	Primary 400 HP pump/motor to support snowmakers	\$123,000	Nov 2022
SMI Standard PoleCat	Mid-throw simple nozzle fan snowmaker with 18 movable nozzles	\$21,950	Nov 2022
Hoses	6 150' hoses at \$250/ea	\$1,500	Nov 2022
Freight	Lump sum	\$2,000	Nov 2022
Total		\$148,450	



Grand Avenue Nordic Center - Site Map





0 7,000 14,000 28,000 Feet

Grand Avenue Nordic Center - Location Map



9) CURRENT ABILITY TO MAINTAIN TRAILS:

<p>9A) If within the Grant-in-Aid Program, how many miles of trail are groomed / maintained AND how much GIA funding was awarded in the most recent year? Use the box below.</p>		
<p>The Grand Avenue Nordic Center is not enrolled in the Grant-in-aid program. Grant-in-aid provides \$11,000 to the City of Duluth annually and helps groom 43.5 km (27 mi) of trail that do not include the Spirit Mountain Nordic Center or the additional Spirit Mountain cross country ski trails at the top of the mountain.</p>		
<p>9B) Provide the following information for each piece of grooming / maintenance equipment you presently own. Use the boxes below.</p>		
Description of equipment (type, make, model, year manufactured):	Total operating hours for each piece of grooming/ maintenance equipment you presently own:	Condition of each piece of equipment and estimated value:
Arctic Cat Bearcat GS 2012	483 hours	Good condition \$8,000
John Deere Gator 825I 2015	500 hours	Excellent condition \$16,000
Yellowstone Ginzugroomer 84"	No hour meter. Groomer is pulled by the Bearcat	Good condition \$2,500
Yellowstone Ginzugroomer 108"	No hour meter. Groomer is pulled by the Gator	Fair condition \$2,000
John Deere 1070 Tractor 1995	1490 Hours	Good condition \$12,000
Rhino Flail Mower 1995	No hour meter. Attachment is used by the 1070 tractor	Good Condition \$2000
John Deere 990 Tractor 2007	383 Hours	Good Condition \$10,000
Mott 74 Flail mower 2007	No hour meter. Attachment is used by the 990 tractor	Good Condition \$2000
Pisten Bully 100 4F 2018	350 Hours	Excellent condition \$250,000
<p>9C) Does your club/organization maintain trails not in the GIA Program, and if so, how many miles? Are any trails maintained through contracts (other than GIA), and if so, how many miles? Use the box below.</p>		
<p>There are 22.1 km (13.7 mi) of cross-country trails that are groomed at the top of Spirit Mountain with no GIA assistance. The Nordic Center is 2.5km of trail, with snowmaking on 1.5km and does not receive any GIA assistance.</p>		

10) EVIDENCE OF APPLICANT CAPABILITY:

<p>Demonstrate your ability to complete the purchase, subsequently operate and maintain it, and protect the equipment after purchase. Specifically provide evidence of successful and timely completion of other such purchases. Discuss where and how the equipment will be housed. Use the box below.</p>

The Property and Facilities Management Division of the Department of Public Administration is responsible for the management of all City of Duluth properties, facilities and equipment. The City of Duluth has 148 buildings (comprising 1,200,00 square feet), over a hundred park properties, a diverse array of other real estate holdings, and \$10,572,000 in equipment assets. The Division is made up of three distinct offices: Property Services, Maintenance and Operations, and Project Management. Maintenance and Operations is responsible for the day to day and long-term maintenance, repair, and physical operation of City facilities. This work group is comprised of custodial staff, building maintenance staff, and construction tradesmen (plumbers, electricians, and carpenters) and their vehicles and equipment.

The equipment will be utilized and stored at Spirit Mountain Recreation Area, a quasi-governmental facility and subsidiary of the City of Duluth. Spirit Mountain operates and maintains ski lifts, two lodge buildings, a maintenance building, snow guns for downhill skiing and the Nordic Center and grooming equipment for downhill and cross country skiing as well as several other facilities and attractions.

11) PUBLIC NEED FOR AND BENEFIT OF PURCHASE:

Why should this project be funded? What safety concerns will be addressed with this project? Is there urgency to move ahead with this project now, and what consequences are looming? Demonstrate the benefit from this purchase compared to the total cost? How many people would be expected to use the trail maintained with this equipment over the course of one year? Use the box below.

Rationale

Snowmaking provides early and season long dependable snow for cross country skiing for all users the first time in the Duluth area. The closest trail with snowmaking is Mt. Itasca in Coleraine which is 80 miles away. The Twin Cities area has two parks with snowmaking approximately 160 miles to the south. Ski trails with snowmaking provide a dependable season-long venue for recreational skiing, youth activities and regional high school events, including hosting Statewide Nordic finals.

The Nordic Center's Phase I system opened to high school practices in 2018 with six teams practicing on the 500-meter loop (0.3 mile). By January 2, the full 1.5 km (0.9 mi) snowmaking loop was open. all Section 7 High School Nordic ski teams training or competing at the Nordic Center: Ely, Grand Rapids, Cloquet/Esko/ Carlton, Two Harbors/Cook County, Hibbing, Marshall, Mesabi East, North Star Academy, Denfeld, Duluth East, Moose Lake, and Mora. Other events include DXC women’s ski and DXC’s Wednesday night race series, Learn to Ski, and Advanced Training. The project has become a regional center of activity for cross country skiing by extending the season early and late and providing skiing when there is inadequate natural snow.

As the snow pack within the city starts to melt, Spirit Mountain will continue with grooming and snow farming and expects Nordic Center use well into April.

Snowmaking on these wide, smooth trails accommodates users of many skill levels. The closest loop to the trail head will be a “green” (most easy) level beginner trail. The subsequent loops progress in difficulty the further you get away from the trail head. Further, the adjacent neighborhoods at the bottom of Spirit Mountain along Grand Ave lack access to nordic ski trails. Neighborhoods in West Duluth have few trail options in general and no ski

trails in particular. Ski trails on the top of Spirit Mountain and at nearby Magney-Snively represent some of the best cross country skiing available. They are only 2 miles away but require a drive that is 15 to 20 minutes around the base of the mountain to the top where parking is extremely limited. This presents a significant barrier for many low-income families that lack transportation as well as to young people and informs the need for system revisions to better serve the public with guaranteed snow.



Safety

The design of the Nordic Center will follow guidelines for cross country ski trail development in practice through the International Ski Federation (FIS) and the International Paralympic Committee (IPC) homologation guidelines. Even though these organizations are primarily concerned with international level competitions, the principles they apply focus on safety and “skiability” or “flow” of ski courses which translate to a safe and enjoyable ski experience. Standard trail width is 30 feet on the up-hills and 24’ on the downhill, which will allow for two skate skiers to pass as well as provide room for a single classical track (See Figure 1).

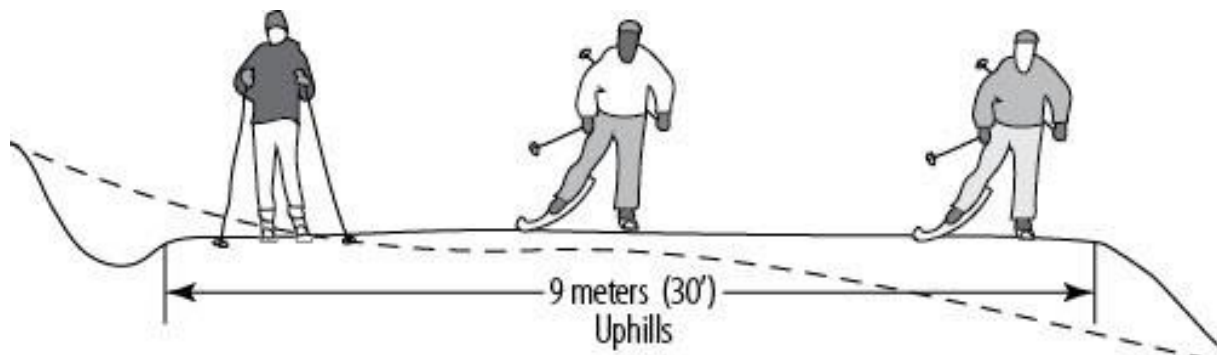


Figure 1: Nordic Trail Cross Section.

When the trails become crowded with skiers of differing abilities, skiers need to be able to pass. One skater in the center of the trail can block it at narrower width. This width trail makes for a less intimidating experience for less skilled skiers. Higher level competitive events approved by the US Ski Association (USSA) and International Ski Federation (FIS) require a 9 meter (30 foot) minimum width on uphill trails.

The entire system is designed as one-way and will provide ski terrain for all levels of skier ability. The design will incorporate a core trail with cut-offs and additional higher difficulty loops so a variety of configurations can be explored depending on distance and difficulty interests. Central Duluth and East Duluth nordic trails in Hartley, Chester, Bagley, and Piedmont

ski areas have no more than 3-4 km (2-2.5 mi) loops with natural snow that are heavily used by neighborhood skiers, a key target population for this project.

Urgency

The Nordic Ski Center, especially its ADA accessible parking, existing Grand Avenue Chalet and location in an underserved neighborhood, provides long awaited access to the sport. The west Duluth area, City of Duluth, and DXC are significantly invested in the project as the lack of snow becomes more frequently occurring throughout the season and creates a hardship for snow-based businesses and area school ski teams. A venue with snowmaking brings significant fiscal impact to the economically distressed west Duluth area.

The time necessary to fully snow the trails to competition will be two weeks with the new equipment.

Annual user numbers

Utilization has exceeded expectations for the first year of operation. As noted in the #11: Rationale above, participation to date for Winter 2018/19 was well over 3,000 without a tally of the number of visits from those holding season passes. 2018/19 was a good snow year, though late in starting. If climate conditions continue to present poor snow coverage, Spirit Mountain expects that the Nordic Center will see numbers well over those seen last year.

12) CONTEXT OF PURCHASE IN A WIDER PLAN:

Demonstrate compatibility with local/area/state trail plans, and compatibility with plans guiding management of trail systems, etc. What relationship does the proposed purchase have to other outdoor recreation facilities and trails? Use the box below.

Over the past eight years, the City of Duluth completed recreation planning initiatives for the St. Louis River Corridor that include and overlap the Spirit Mountain Recreation Area. A major thrust of this effort was to develop a Trails Master Plan for Western Duluth to document the existing trail network (walking, hiking, cycling, Nordic ski, multi-use, snowmobile, equestrian), consider the needs of the various user groups and create a long term development plan to make Duluth the premier trail city in North America.

Extensive public input contributed to mini-master plans, master plans, or plan updates for significant components located in, travel through, or connect to Spirit Mountain. Those include the Duluth Traverse Mountain Bike Trail system, the Cross Country Ski Trail system, the Grand Ave Nordic Center, and the Cross City Trail.

Documents which address recreational development affecting the Nordic Center include:

- Lower Spirit Mountain Riverfront Park, February 2018
- Spirit Mountain Recreation Area 2017 Mater Plan Update
- Western Trail and Waterfront Master Plan Progress Report, June 2017
- Grand Avenue Nordic Center Mini Master Plan, June 2015
- City of Duluth Cross Country Ski Trail Master Plan, May 2015
- St. Louis River Corridor Trails Plan, December 2014
- Duluth, Minnesota Trail and Bikeway Plan, October 2011
- Spirit Mountain Master Plan, 2008

13) IDENTIFY ADVERSE IMPACTS THAT MIGHT BE REALIZED AS A RESULT OF PURCHASE:

Will the purchase result in increased use? What possible conflict situation may arise? Use the box below.

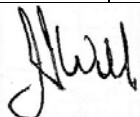
Yes, use will increase. The user response to the trails since they opened has been overwhelmingly enthusiastic. Additional guns and pumps will open up additional loops to snowmaking, snow in the existing 1.5 km snowmaking loop faster, guarantee a high quality ski experience for local users, and ensure local and regional ski tournaments can happen. Conflicts and overcrowding are unlikely as the Nordic Center Mini Master Plan included expansion to the full 3.3 km (2 miles) and public and resident concerns have been addressed.

Attachment A – REQUIRED CERTIFICATIONS

Complete the Required Certifications form below with original signatures.

For Grant Applicants:

“I hereby certify that all of the information provided in this application is true and accurate to the best of my knowledge. I recognize that in the event of the proposed project being funded, this document will be used as an addendum to the agreement between the sponsoring unit of government and the state to guide project scope and reimbursement. I also acknowledge that all work must be completed by **June 30, 2021**, and no reimbursement will be sought for an in-house labor services and/or to meet existing payroll.”

Name:	Jim Filby Williams	Title:	Director – Parks, Facilities, and Libraries
Unit of Government:	City of Duluth – Parks and Recreation		
Signature:		Date:	2/27/20

For Trail and Park Administrators (if applicable):

“I substantially agree that the proposed trail related project will be mutually beneficial to the local community, as well as to the goals and purposes for which this recreation unit was established. I will cooperate in its provision if the project proposal should be funded.”

Name:		Title:	
Unit of Government:			
Signature:		Date:	

For All Administrators of Public Lands Crossed/Utilized in the Proposed Linkage

(Required only if the proposed project will utilize public land that is not under the jurisdiction of the grant applicant):

“I preliminarily agree with plans to develop the proposed trail related project on land administered by my agency, and I will cooperate in seeking more formal authorization in the event the project proposal is authorized for reimbursement.”

Name:	Not Applicable	Title:	
Unit of Government:			
Signature:		Date:	



City of Duluth

411 West First Street
Duluth, Minnesota
55802

Certified Copy

Resolution: 19-0133R

RESOLUTION AUTHORIZING APPLICATION TO THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES FOR A FEDERAL RECREATIONAL TRAIL EQUIPMENT PROGRAM GRANT OF UP TO \$150,000 FOR SNOWMAKING EQUIPMENT FOR THE GRAND AVENUE NORDIC CENTER AT SPIRIT MOUNTAIN.

CITY PROPOSAL:

RESOLVED, that the city of Duluth supports the grant application made to the Minnesota Department of Natural Resources for a Federal Recreational Trail Equipment Program grant of up to \$150,000 for snowmaking equipment at the Grand Avenue Nordic Center.

FURTHER RESOLVED, that the city of Duluth has the legal authority to apply for the money, and financial, technical and managerial capacity to ensure proper planning and maintenance of the project.

FURTHER RESOLVED, that Spirit Mountain Recreation Area will provide the required matching funds.

FURTHER RESOLVED, the Duluth city council names the fiscal agent for this project as Wayne Parson, City of Duluth Chief Financial Officer, 411 West First Street, Duluth, MN 55802.

*This Resolution was adopted unanimously.
Councilor Fosle: Absent.*

I, Chelsea Helmer, City Clerk of the City of Duluth, Minnesota, do hereby certify that I have compared the foregoing passed by the city council on 2/25/2019, with the original approved and that the same is a true and correct transcript therefrom.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of said city of Duluth.

Chelsea Helmer, City Clerk

By: 

Duluth, Minnesota



406 E Bell Drive
Phone: (574)-372-3200

Warsaw, IN 46582
Fax: (574)-372-3229

USA
www.torrentee.com

Equipment and Services Proposal

Proposal Number: 984619q2

Wednesday, February 26, 2020

<p>Customer: City of Duluth MN Purchasing Division RM 100 City Hall 411 West 1st Street Duluth, MN 55802</p>	<p>Project: Spirit Mountain additional Main & River pumps and related hardware</p>
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Equipment and Services Description:

Main Primary Booster Pump Station:

Please see the attached Bill of Materials and data sheets #984619 Booster for equipment details.

(2) Additional matching pump rated for 1,000gpm @ 1,215 ft. TDH + 125' supply pressure = 1,340' (580psi) discharge pressure. With 400HP, 460/3/60 motor. Includes motor controls, related valves and hardware.

Also Includes:

Complete mechanical and electrical drawings.

Installation, Operation and Maintenance manuals. (printed and on CD)

(1) year warranty from start-up date or 18 months from date of shipment, whichever occurs first.

Freight to the site.

Price each: \$116,900.00 X (2) = \$233,800.00

Lead-time: 16-18 weeks ARO

River Pump Station

Please see the attached Bill of Materials and data sheets #984619 River for equipment details.

(1) Additional matching pump rated for 2,000gpm @ 230 ft. TDH (100psi) discharge pressure. With 200HP, 460/3/60 motor. Includes motor controls, related valves and hardware.

Also Includes:

Complete mechanical and electrical drawings.

Installation, Operation and Maintenance manuals. (printed and on CD)

(1) year warranty from start-up date or 18 months from date of shipment, whichever occurs first.

Freight to the site.

Total Price: \$82,400.00

Lead-time: 14-16 weeks ARO

Site Services:

Above equipment includes the following site services.

(1) technician, (1) trip, (1-3) day on-site installation supervision including all travel expenses. Customer to provide installation labor, tools and lifting equipment (crane, boom trucks, etc.). All installation by customer.

(1) technician, (1) trip, (2-4) days on-site startup calibration and training including all travel expenses. Startup, calibration, testing and training of customer operations staff.

Total Project Cost: \$316,200.00*

*Price valid to 8-1-2021

Terms and Conditions of Sale:

Customer is responsible for all sales taxes and/or duty.

Payment Terms:

25% down payment, (2) 35% progress payments before shipping, 5% balance due net thirty (30) days after startup acceptance or (90) days after shipment...whichever is first. Accounts will be considered past due at forty five (45) days after invoice date and a 1-1/2% per month interest charge will apply to any outstanding balance.

If for any reason Buyer is unable to accept delivery within the stated lead-times above, then Torrent Engineering and Equipment, LLC shall consider the order complete and invoice the buyer for any outstanding balances. Buyer will be responsible for additional handling and storage costs incurred by Torrent Engineering and Equipment, LLC. Storage costs will be no less than \$200.00 per month and will be invoiced separately. Torrent Engineering and Equipment, LLC retains a security interest in all products and services sold to the buyer until the purchase price and any other related charges, if any, are paid in full as provided in Article 9 of the Uniform Commercial Code. Torrent Engineering and Equipment, LLC will file a Mechanics Lien or execute any other legal rights as required to perfect the security interest in any of the products or services sold.

Cancellation:

All equipment is custom manufactured to order. Buyer has 72 hours after order is placed to cancel with minimal charges. Cancellation charges after this period are 100% materials and labor cost + any penalties and re-stocking charges.

Shipping:

Unless otherwise specified above, all prices are quoted F.O.B. point of shipment and do not include shipping charges. If shipping charges are included in equipment prices and stated so above, these charges are calculated at standard common carrier ground freight rates with adequate insurance coverage. Expedited shipping charges shall be the responsibility of the Buyer and requested in writing by the Buyer.

On-Site Commissioning\Startup Services:

Unless otherwise specified above, no startup services or site visits are included in the pricing. If startup services or site visits are included and stated so above, they are for the specified number of men, trips, and days including transportation charges, travel time, accommodations and meals. Any delays requiring additional man-hours that are

the result of events or issues beyond the scope and control of Torrent Engineering and Equipment, LLC will be invoiced to the Buyer at the applicable field service rates. Scheduling of startup services requires a minimum of (2) weeks advanced notice in writing from the Buyer.

Warranty:

Torrent Engineering and Equipment, LLC (seller) warrants all equipment manufactured/assembled by Torrent Engineering and Equipment, LLC to be free from defects in material and workmanship for a period of one (1) year after startup not to exceed eighteen (18) months after delivery. For components included in our packages but not manufactured by Torrent Engineering and Equipment, LLC, the warranty is limited to the terms of the OEM manufacturer of the given component and shall not be less than twelve (12) months after shipment.

All warranties are limited to parts and labor only. Transportation expense, travel time, overtime and expedited shipment charges are not included in the warranty and shall be the responsibility of the Buyer and requested in writing by the Buyer.

The Buyer agrees to properly maintain all equipment as directed by Torrent Engineering and Equipment, LLC during the duration of the warranty period.

In no event whatsoever shall Torrent Engineering and Equipment, LLC be responsible for incidental, consequential or act of God damage. Torrent Engineering and Equipment, LLC shall not be liable to the buyer or any other person, company or corporation for any liability, loss or damage caused or alleged to be caused, directly or indirectly by products manufactured/distributed and services provided by Torrent Engineering and Equipment, LLC.

If you agree with the above contract terms and conditions please initial each page of the proposal indicating your acceptance including any drawings, bill of materials or specification sheets attached and sign/date below.

Buyer Signature: _____

Date: _____

Joe Cousins, Co-Owner

2-26-20

Seller Signature: _____

Date: _____

Attachment C – Estimated Value/Cost Invoice

2/26/2020

Spirit Mountain, MN
Main Pump Station additional pump and related hardware
Project #984619

Torrent Engineering and Equipment
Warsaw, IN USA

ITEM #	TAG	DESCRIPTION	MANUFACTURER/ MODEL/ENGINEERING DATA	QTY
1.00	P-05	Vertical Turbine Can Pump: Rated 1000 gpm @ 1215' TDH + 125' suction = 1,340' (580psi) discharge.	Flowserve (IDP) Model 10EMM 7 stage 10" 150# X 8" 300# discharge. 16" diameter x 88" long suction can. Plan 13 steel seal flush piping. 416 SS bowl & column shaft. Class 40 cast iron bowl & bronze impellers. Mechanical seal and spacer adjustable flanged coupling.	2
2.00	M-05	400HP Vertical Solid Shaft Motor: 3550 RPM, 460/3/60. 1.15 service factor. Continuous duty. 40C Ambient. WP-1 enclosure. Class F insulation. Starting Code G.	GE Motors. Model NOCAT449V. Includes space heaters and N/C thermostat	2
3.00	E6	400 HP Motor Soft Starter: Main lug connection, 460/3/60, CPT, UTV Contact, UL Label, HOA Switch, Nema 12 Enclosure. Run duty by-pass contactor, Door mounted interface keypad.	Benshaw. Model Number: TOR-ML-RB2-1-S-515A-17C (72"H x 36"W x 18"D) 515 amp. Includes CPT, Local-Off-Remote selector switch, time delay relay with fault light. (3) control circuit relay's for remote options.	2
4.00	E7	400HP Power Cabling: 460/3/60. Motor Control to Motor. Includes rigid & flex conduit, cable and motor termination kit.		2
5.00	E8	120VAC Instrument Cabling: 120VAC. Instruments to control panel termination. Includes rigid & flex conduit, cable and quick connector at instrument end.	Carol. 86663.15.05. 18/3 STO Yellow. 60c 600V	2
6.00	E9	4-20ma Instrument Cabling: 4-20ma Instruments to control panel termination. Includes rigid & flex conduit, cable and quick connector at instrument end.	Carol. C1202.18.01. 18/2 Black. Shielded .	1
7.00	PSL-05	Pressure Switch / Isolation Valve Assembly: Protects pump from low water supply pressure. Includes Isolation Valve and 1/2" pipe fittings.	Kobold. Model KPH-8022. Aluminum. Buna-n construction. 3-30 psi range. 1/4" FNPT connection. N/O contact. 220VAC rated. With Iso Valve Type 910.11. CS body, 6' STO Cable, and 1/2" pipe fittings.	2
8.00	PG-05	Pump Discharge Pressure Gauge / Isolation Valve Assembly: 0-1000 psi range, 1/2" NPT, Includes 1/2" pipe fittings	Wika. Gauge Type 213.53, SS case. Glycerine filled. With Iso Valve Type 910.11. CS body. And 1/2" pipe fittings.	2
9.00	BV-05	Isolation Valve: 10"-250psi Lug butterfly valve with gear actuator.	10" Bray Series 31H DI 150# Lug Body, N11 Coated DI Disc, 416SS, EDPM Seat, 250psi W/Gear Operator P/N 31H-120-390-G	2
		Stud And Nut Set 7/8"x8"	2474-0661 B7, Zinc Plated Stud with 2 Nuts 7/8"x8"	24
10.00	CV-05	Pump Check Valve: 8"-300# wafer Check valve .	8" Titan CV44 Check Valve, 300# Wafer, CS Body, SS Disc, Buna Seat, P/N 8.0 CV44-CSB	2
		Stud And Nut Set 7/8"x11-1/2"	2474-0717 B7, Zinc Plated Stud with 2 Nuts 7/8"x11-1/2"	24
		Spiral Wound Gasket	2511-0153 8"300# Steel / Chlorite / Graphite	4
11.00	BV-05	Isolation Valve: 8"-300# wafer butterfly valve with gear operator.	Bray Series 42-466 8" 300# CS body, 316ss disc, 17-4 shaft, RTFE seat, TFE packing, Glass backed TFE bearing, Gear Operator	2
		Stud And Nut Set 7/8"x9"	2474-0677 B7, Zinc Plated Stud with 2 Nuts 7/8"x9"	24
		Spiral Wound Gasket	2511-0153 8"300# Steel / Chlorite / Graphite	4
12.00	DS-05	Discharge Spool Assembly: 8" 300# Pump discharge spool assembly.	Torrent - Welded and painted pump discharge spool assembly including pump connection flange, spool flange, victaulic #77 coupling and groove x plain nipples.	2
	END			



February 27, 2020

Christine Penney
 Duluth, Minnesota
 218.525.6970

Christine:

SMI is pleased to offer the following pricing for new snowmaking equipment for your project:

Equipment	Qty	Price (Each)	Price Total
New SMI Standard PoleCat on 3-wheel galvanized turntable chassis with extendable jacks for frame leveling, snow groomer lifting brackets, 10 HP fan, 10HP Hydrovane compressor, 18 nozzle stainless steel heated spray manifold with heated water side center nucleator, ceramic nozzles , heated check valve, 3-valve stainless steel valve manifold with heated 3-way self-draining ball valves, 30 mesh water filter and cam and groove fitting on water inlet, no oscillation, halogen flood light, strobe light, manual controls, 100' cord and Hubbell black pin and sleeve plug.	3	\$21,950	\$65,850
New SMI Kid PoleCat Snowmakers on 3-wheel galvanized turntable chassis with extendable jacks for frame leveling, snow groomer lifting brackets, 7.5 HP fan, 5 HP Hydrovane compressor, 18 nozzle stainless steel heated spray manifold with heated air and water side center nucleator, ceramic nozzles , 2 valve stainless steel valve manifold with heated 3-way self-draining ball valves, 30 mesh water filter and cam and groove fitting on water inlet, no oscillator, halogen flood light, strobe light, manual controls, 150' cord and Hubbell black pin and sleeve plug.	2	\$20,500	\$41,000
50' snowmaking hose	15	\$250.00	\$3,750
Freight	1		\$2,000
Total F.O.B. Duluth, MN			\$112,600

2. Delivery and Conditions

SMI Equipment to carry a one season warranty on defective parts and workmanship. Pricing is F.O.B Duluth, MN. Customer responsible for all applicable taxes. Pricing is good through November 1, 2020.

3. Payment Terms

\$112,600 due Net 30 after delivery

Please let us know if you have any questions or comments.

We appreciate the opportunity to work with you.

With Best Regards and
Thinking Snow!

Brooke Vanderkelen Alba

Brooke VanderKelen Alba

Snow Machines, Inc.
1512 N Rockwell Drive
Midland, MI 48642



February 26, 2020

Minnesota Department of Natural Resources
500 Lafayette Road
St. Paul, Minnesota 55155

Dear Sir/Madam:

Duluth Parks approved a Master Plan to help guide future use of Duluth's extensive parks and trail system. Key elements of the Plan are to focus on connecting the community through trails and bikeways and enhance stewardship of natural resources. Recreation research clearly demonstrates the connection between outdoor time, a love for the outdoors and helping to foster a healthy lifestyle. Children who spend time in quality outdoor activities demonstrate a greater appreciation for nature, a willingness to preserve it as well as promoting a physical activity.

Spirit Mountain is located in the St. Louis River Corridor and our recreation area provides 4-seasons of activity. In the summer we have warm weather activities that include mountain bike and hiking trails that offer spectacular views of Lake Superior and the St. Louis River estuary. Winter months are focused on downhill and Nordic skiing as well as snowboarding. The Nordic Center with its snow-making and lights is an important addition to our Nordic ski offerings. We have many visitors from around the region who have voiced interest in expanding their horizons to include recreational and competitive skiing at the Nordic Center. The Nordic Center is an important part of our growth and sustainability plan and, as such, Spirit Mountain will pledge \$144,175 to match this application.

Thank you for your consideration of this proposal.

Brandy Ream
Executive Director



February 19, 2020

Daniel Golner
Program Officer
Recreational Trails Program
Minnesota Department of Natural Resources

Dear Mr Golner:

I am writing in strong support of the City of Duluth's application for additional snow guns and pump capacity for the Grand Avenue Nordic Center.

The Duluth Cross-Country Ski Club (DXC) is a non-profit organization with a mission to promote health, fun and fitness through cross-country skiing. We write to you now because we are vitally invested in this project. Many cross-country skiers are also avid Alpine skiers, trail runners, hikers, and bikers – it's about a love for the outdoors and healthy recreation. The Grand Avenue Nordic Center (GANC) snowmaking at the bottom of Spirit Mountain has created a comprehensive event center in Duluth – something the region lacked until now. GANC is the brainchild of DXC, in close partnership with the City of Duluth and Spirit Mountain, and we are thrilled to announce that we have raised over \$800,000 in support of construction!

Along with this significant fundraising effort, DXC moved its programming to GANC, including our KidSki and ParentSki lessons, and hosted multiple events including the 2019 Junior National Qualifier race, and public events with Olympians Kikkan Randall and Jessie Diggins. We've leveraged the strength of our programming at GANC to secure a grant to buy a new fleet of children's skis, and we continue to offer scholarships to make sure all children can have access to our ski lessons. We work closely with City and Spirit Mountain staff to support trail maintenance, optimal grooming, and races at GANC.

DXC has always stressed the importance of supporting the GANC project until it's complete, and we're not done yet! This grant is vital to adding snow guns and pumps so we can snow in all 2.5K of the built trail in 2020-2021, compared to the 1.5 K of trail that was snowed in during the 2019-2020 ski season. Upgrades to GANC are a major component to strengthen Duluth's growing reputation as a venue for outdoor recreation in all seasons. We urge you to support the proposal to fund these important additions to Duluth's regional recreational system and believe doing so will have incredible impact.

Sincerely,

Board President, Duluth Cross-Country Ski Club

Maria Stuber
President, Central Collegiate Ski Association
College of St. Scholastic
Duluth, Minnesota

February 18, 2020

Minnesota DNR

Re: Regional Trail Program application

To Whom It May Concern,

The Central Collegiate Ski Association is a collegiate Nordic ski racing conference. The CCSA works within the framework of the National Collegiate Athletics Association (NCAA), the Federation Internationale de Ski (FIS), and the US Ski and Snowboard Association (USSA). As president of the conference, I wanted to express the conference's delight with The City of Duluth's initiative with the Grand Avenue Nordic Center.

As a ski racing organization, the weather patterns of the past decades have made training and competing in Nordic skiing tenuous at times. Many of our member institutions struggle regularly to find early-season snow for pre-season training, and in the worst cases, we as a conference struggle at times to pull off our scheduled events due to low- or no-snow situations.

The impact of a venue in Duluth as being developed at the Grand Avenue site is a welcome and necessary development for our conference, with significant regional impact on our training and racing options for teams residing in Minnesota, Wisconsin, Michigan, and Alaska.

We further recognize the impact that such a venue will have on our future recruiting and skier development that will undoubtedly have a regional and national impact on quality of life for Duluth's residents, as well as skier development for our future rosters. With these points in mind, the Central Collegiate Ski Association strongly supports the Grand Avenue Nordic Center for consideration for your grant.

Sincerely,

Maria Stuber
President
Central Collegiate Ski Association



February 20, 2020

Daniel Golner
 Minnesota Department of Natural Resources
 500 Lafayette Road
 St. Paul, MN 55155

Dear Mr. Golner:

Continental Ski and Bike is a locally owned retail specialty shop based out of Duluth, MN supporting biking, skiing and other outdoor pursuits since 1951! Continental promotes healthy lifestyles and community service through a variety of initiatives including an annual Bike Swap in partnership with the United Way that has raised \$50,000; eight bicycle work stations scattered around Duluth, and dozens of donated bike racks at local business and locations to encourage alternative ways to travel.

We are excited to contribute to the St. Louis River Corridor development plan that promotes neighborhood and private sector collaboration to revitalize and transform recreational opportunities in west Duluth. Cross country skiing is a great way to enjoy Minnesota's long chilly winters and get/stay healthy as well. Duluth is home to some of the finest trail systems in the country including seven trail systems within the city limits and a dozen in the surrounding area. Lighted trail increase access to this important activity especially when we have only five hours of daylight at the peak of the season. Snowmaking capability is becoming critically important to skiers and the small businesses that support important as climate change reduces the amount and quality of snow we receive.

The Nordic Ski Center provides an incredible outdoor experience not otherwise available and makes west Duluth more attractive to residents and visitors alike. Thank you for your strongest consideration of this project.

Andre Wat
[Signature]
JJK
Ben Fisher
[Signature]

1305 EAST 1ST STREET • DULUTH, MN 55805
 218-728-4466 • FAX 218-728-1828
 WWW.CONTINENTALSKI.COM

February 22, 2020

To Whom it may Concern:

I am writing to show support for the proposed Grand Avenue Nordic Center and trail system in Duluth, MN.

I have been cross country skiing since 1974 and have great passion for the sport. In my lifetime, I have never seen such enthusiasm for the sport of cross country skiing, especially at the high school and junior level. This enthusiasm is partly attributed to the great organizations and trail systems that support cross country skiers. Duluth XC Ski Club is one of those organizations.

In the Minneapolis/St. Paul area, there are three cross country ski trail systems with snowmaking capabilities. Those systems are typically over-crowded due to the demand of skiers. The cross country ski facility, with snowmaking, in Duluth has already created a very desirable situation for cross country skiers in Duluth.

Teaching our children to love the outdoors and outdoor activities is necessary for healthful living. The Grand Avenue Nordic Center will be a mecca for cross country skiers, from youth to adults. I have used the facility and fully support expanding the snow making capacity.

I fully support the Grand Avenue Nordic Center project and encourage you to support the project as well

Sincerely,

Greg Fangel
PO Box 2134
Tofte MN 55615
218-370-8995



Scott Neustel
1032 E 4th St. Duluth, MN 55805

February 23, 2020

Daniel Golner
Minnesota Department of Natural Resources

Re: Regional Trail Program

This letter is written to support the City of Duluth's Regional Trail Program application to create a regionally significant Nordic ski center with snow making and lights in Duluth. Ski Hut is a family owned and operated business serving outdoor adventure enthusiasts since 1955. The cross country ski industry has taken a real hit in the last ten years because of our inconsistent winter snowfalls. Cross country skiers are leaving the sport because there are few opportunities to enjoy good trail conditions and limited access because of our short days in the winter. The City of Duluth partnership with the Duluth Cross Country Ski Club to build a trail in Duluth that provides consistent snow conditions throughout the winter months, now provides night skiing with lights and will connect to an extensive ski trail system in west Duluth. This is critical to maintain the sport as well as the small businesses that cater to outdoor recreation.

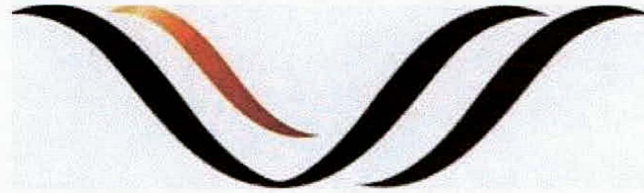
Ski Hut is an involved civic partner, collaborating with recreational clubs to advocate for and support a diverse recreational economy. The Nordic development is a priority for the Duluth Cross Country Ski Club and is already benefiting school and college ski teams as well as the general public. The Nordic Center has the potential to attract new and younger users to the sport. Because the Nordic Center is located at Spirit Mountain Recreation Area, the project has the potential to attract participants to additional healthy activities such as alpine skiing and mountain biking.

The Nordic Ski Center providing an incredible outdoor experience not otherwise available. Enhancing the ski experience in winter enables Duluth to become a regional and national cross country ski destination. Please give this application your strongest consideration.

Sincerely,

Scott Neustel

Owner/President



WEST DULUTH BUSINESS CLUB

— Since 1902 —

February 25, 2020

Daniel Golner
Minnesota DNR
Division of Parks and Trails
500 Lafayette Rd
St. Paul, MN 55155

Dear Mr. Golner,

West Duluth Business Club serves the West Duluth neighborhoods from 34th Ave West to Fond du Lac including Irving, Memorial, Merrit, Riverside, and Morgan Park. The club supports a variety of activities and initiatives that support business and economic health via healthy and welcoming communities. We understand what draws and sustains viable businesses and economic activities to a community: a vibrant business community, affordable and solid housing, and safe, clean and healthy environments that include parks, trails, and other recreational activities.

Our club has worked for decades to build these amenities throughout west Duluth. We have supported housing developments to bring condos to the river and in efforts to upgrade existing housing through HRA using TIFF funds. We address safety by working with the City of Duluth to restore lighting to make public areas safe and walkable. We participate in public planning meetings and support resident efforts through the master planning efforts in full swing throughout west Duluth. We sponsor activities the build community identity such as Spirit Valley Days, a summer festival that draws participants from around the region.

You will not be surprised, then, to hear that we ask for your support to develop more snowmaking at the Grand Avenue Nordic Ski Center. Spirit Mountain Recreation Area as been a key economic driver for west Duluth. The Ski Center at the base of the Mountain disseminates that impact to neighborhoods below the mountain as well as provides opportunities for hiking and skiing. These amenities and visitors are important to residents and business and will ensure that we can continue to grow west Duluth and the St. Louis River Corridor into a regional and national tourism asset as well as attract business and industry.

Thank you for consideration,

A handwritten signature in black ink that reads "Susan Coen". The signature is fluid and cursive.

Susan Coen
President
West Duluth Business Club



Steve Rendell
4125 Brown Farm Dr.
Carmel IN 46074
Phone: 704-957-7637

February 17,2020

Daniel Golner
MN Department of Natural Resources
500 Lafayette Road
St. Paul Minnesota

Ref: City of Duluth, MN: Spirit Mountain Recreation Area new snowmaking pump.

The Flowserve Model 10EMM vertical turbine can pump is made in our Hastings NE factory where we pour our own bowl castings and fabricate our own columns and cans. Our pumps meet the requirement for made in the USA and the amount of Non-US steel utilized in construction of the pump is under USD \$2,500.00.

Regards,

Steve Rendell

Steve Rendell
Flowserve / Flow Solutions Group
Regional Sales Manager / Water Resource's – Midwest



February 14, 2019

Christine Penney
Duluth, Minnesota
218.525.6970

Dear Christine,

This letter is to confirm that all Snow Machine Incorporated (SMI) manufacturing is located in the United States in our locations in Michigan and Pennsylvania.

Should you have any questions, you may contact me at (989) 631-6091.

Sincerely,



Brooke VanderKelen Alba

Global Sales and Marketing
Snow Machines, Incorporated
1512 N Rockwell Drive
Midland, MI 48642