



Building a Better World  
for All of Us®

## SUPPLEMENTAL LETTER AGREEMENT

May 11, 2016

RE: City of Edina  
Winter Recreation Area at Braemar Park  
SEH No. EDINA136169, 10.00

Ann Kattreh  
Parks & Recreation Director  
Parks and Recreation Department  
4801 West 50<sup>th</sup> Street  
Edina, MN 55424

Dear Ann:

The City of Edina continues to be the leader in providing its citizens with great amenities. We are excited to have the opportunity to help Edina add its next great amenity, winter recreation at Braemar Park. Thank you for already including us in several meetings with project stakeholders during the past few months. Exhibit 1 enclosed with this Supplemental Letter Agreement shows that that recreation can include activities relying on both machine made snow (snow) and natural snow that will not interfere with future golf course operations. For your convenience, this Supplemental Letter Agreement is divided into sections titled Project Understanding, Approach, Team Description, Fee, and Conclusion.

### **Project Understanding**

We admire Edina for recognizing the opportunity that reconstructing the 27-hole golf course to 18-holes at Braemar Park presents to considering adding winter recreation featuring snow. Our experience shows that by considering both projects together now Edina is already addressing the fact that golf and snow are mutually exclusive. Many communities that have considered adding recreation that features snow to the wide open spaces of their golf course do not address this fact until it is too late. The price for that tardiness is usually expensive modifications to the golf course. Today golfers want to use a course as late as November and early as March. During November and March snow is usually being made or melting respectively. We understand this mutual exclusivity. Golfers do not want snow to diminish their late or early season golf experience.

Besides this mutual exclusivity, we will also help the City understand what kind of impacts snow, noise, and light generated by winter recreation might have on surrounding private property owners. Additionally, and maybe most importantly for some, we will help the City understand the revenues and expenses winter recreation will present. We have already developed these understandings for other winter recreation areas inside other metropolitan areas.

It is of great benefit to Edina that Braemar Park already has a large lit blacktop parking lot, clubhouse (containing Tin Fish), and adequate electrical power needed for a former municipal water well (now used for only golf course irrigation) adjacent to the area being considered for winter recreation shown in Exhibit 1. This well can likely become the source of water needed to make snow.

At a very schematic level, we believe the area shown in Exhibit 1 can physically contain the following opportunities for winter recreation with snow that all of Edina's property owners and visitors can use even when natural snow is absent without impacting golf.

1. A lighted cross-country skiing trail featuring snow that is about 2.5 kilometers long (loop).
2. The loop could contain about 30, 20, and 50 percent of beginner, intermediate, and difficult terrain levels respectively.
3. Because the loop can be 2.5 kilometers long, by completing laps of the entire loop common cross-country race distances in multiples of 5 kilometers can be achieved. These distances may be

Engineers | Architects | Planners | Scientists

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attractive to Edina High School's Nordic Ski Team. Edina could consider hosting high school Nordic ski races on the loop. A sizable parking lot for cars and buses is already present. Additionally the clubhouse and Tin Fish are probably capable of handling concession needs of potential race athletes, their coaches, and fans.

4. Because the loop could be power groomed, it could periodically host other trail oriented activities such as fat-tire style winter biking and snow shoeing. At the conclusion of these activities, the power-groomer can return the trails to cross country skiing.
5. The loop can connect to possible cross-country skiing trails, featuring natural snow that Edina might locate inside of Braemar's proposed 18-hole golf course.
6. As many as 11 lighted snow tubing lanes that could include as many as 2 handle style tows that return tubers to the top of the hill for another run.
7. Because the snow tubing area could be power groomed, it could periodically host other downhill activities such as sledding or additional intermediate level cross country skiing trails. At the conclusion of these activities, the power-groomer can return the area to snow tubing.

Off-winter usage opportunities for this area will likely present themselves to Edina too. Edina may wish to consider opportunities such as zip wires, mountain biking, walking, running, and scenic overlooks for wedding event nuptial services and photography opportunities for wedding parties already using the clubhouse.

### Approach

We understand the City would likely sell bonds to pay for this amenity. The bond sale would likely take place during late 2016. This timeframe causes us to simultaneously begin work not just on a feasibility study (study), but also the bidding documents themselves. Usually bid document preparation does not begin until the City Council (Council) accepts the study. However, this project's proposed production schedule below reveals that insufficient time exists to prepare the necessary bidding documents between the Council considering the study and the date the City must open bids from contractors to achieve its October bond sale.

<b>Proposed Production Schedule Key Milestones</b>		
<b>No.</b>	<b>Description</b>	<b>Date</b>
1	Receive Notice to Proceed	May 18, 2016
2	Submit Preliminary Market Analysis/Financial Model Results to the City	May 30
3	Park Department Chooses the Final Layout for Snow Tubing Area and Cross-Country Ski Trails (relying on both snow and natural snow) from the Base and Alternate Designs for the Snow Tubing and Cross-Country Ski Trails	June 6 to June 10
4	Council Considers the Preliminary Results of the Market Analysis/Financial Model Results and Authorizes Conducting a Neighborhood Meeting on June 30 and Continuing the Preparation of the Study and Bidding Documents	June 7
5	Continue the Design of Snow Making System using the Final Layout for the Snow Tubing Area and Cross-Country Ski Trails	June 11
6	Send Invitations to Neighborhood Meeting to Affected Nearby Property Owners / Article Appears on the City Web Page and Newspaper Briefly Describing the Project Advertising the Meeting	June 16
7	Conduct Neighborhood Meeting at the Braemar Golf Course Clubhouse to Review 90% Complete Study with Stakeholders	June 30
8	Submit 90% Complete Study to City for Review by Park Board	July 1
9	Park Board Reviews 90% Complete Study	July 12
10	Submit Complete Study to the City	July 25

<b>Proposed Production Schedule Key Milestones</b>		
<b>No.</b>	<b>Description</b>	<b>Date</b>
11	Council Considers the Study and Authorizes Advertisement for Bids	August 2
12	Advertise for Bids	August 11, 18, and 25
13	Open Bids	September 1
14	Council Considers Awarding a Construction Contract to a Contractor	September 20
15	City Uses Amount of Construction Contract for Budgeting Purposes	October - November
16	Bond Sale to Finance this Project	December 2016 / January 2017
17	Contractor Begins Construction	Winter 2017
18	Snow Tubing Area and Cross-Country Ski Trails Relying on Snow Open for Business	December 2017 <sup>1</sup>

Notes:

<sup>1</sup> Weather dependent. If the weather is too warm leading up to December 2017, snow cannot be made.

While we will immediately begin preparing both the study and bidding documents, we must particularly focus on preparing a market analysis/financial model verifying that it makes financial sense to add winter recreation featuring snow and natural snow to Braemar Park that can be used by all citizens of Edina. We will present the preliminary findings to the Council at its June 7 meeting. If the Council believes it makes sense, we will continue to use our wealth of experience to guide us as we prepare the study and bidding documents that will add winter recreation featuring snow and natural snow to Braemar Park within close proximity to private property, the golf course, and public streets shown in Exhibit 1. If it does not make sense to the Council, we will cease the preparation of both the study and bidding documents.

To achieve a year end bond sale, it is imperative that the City review and then choose a final layout for the snow tubing area and cross-country ski trails from the base and alternate designs for these features between June 6 and June 10, and no later than June 10, respectively. Otherwise it will be impossible to open bids on September 1. We will hurry to set out in the field no later than June 5 for City use the base and alternate designs for the snow tubing area and cross-country ski trails. In some areas, we will have to set this information out in the field before or after the 27-hole golf course opens or closes respectively. We understand our field activities cannot interfere with golf course operations.

**Team Description**

Since 2002 the SEH team that will execute the work plan described by this Supplemental Letter Agreement has successfully added winter recreation featuring snow inside metropolitan area parks in Iowa, Illinois, and Minnesota. Successfully adding snow to winter recreation within close proximity to private property, the golf course, and public streets requires a special blend of winter recreation and municipal project design skills sets not found in the winter recreation design community. It is a lot different designing winter recreation inside Braemar Park than it is in the wide open spaces of the Soldier Hollow or Vail or Sunday River resorts in Utah, Colorado, and Maine respectively.

Our team for this project not only has this special blend, but it has also completed many municipal projects for Edina since the mid 1980's. We understand the Community that is Edina and what it takes to successfully complete projects in Edina. Edina deserves an expert team playing a proactive and pivotal role helping it make great decisions assuring winter recreation at Braemar Park featuring snow is a successful amenity. Our team has not only provided feasibility study, market analysis/financial model preparation, public engagement including project meetings, bid document preparation, permitting, bidding assistance, and construction phase services for winter recreation projects; but also specifically for projects in Edina.

Besides strong winter recreation design and market analysis/financial model preparation bench strength, a detailed understanding of how nearby private property owners might view the impacts of winter recreation are a must. Our team not only has the required winter recreation design and market analysis/financial model preparation bench strength, but also a great understanding of how adding winter recreation needing snow in metropolitan areas can impact nearby property owners.

As a case in point, I will lead our team as its project manager. Since 1998 and 2002, I have had the pleasure of leading the SEH design teams that completed both our Edina municipal and winter recreation featuring snow projects respectively. As project manager, I will combine my unique knowledge of both winter recreation inside metropolitan areas and what it takes to successfully complete municipal projects for Edina. Besides myself, SEH employees Mike Horn, Ken Taillon, Tom Honer and Deric Deuschle have all not only completed Edina municipal projects, but also our winter recreation projects needing snow. They all understand how property owners near Braemar Park might view the impacts of winter recreation. Below are a few key items about these and some of our team members.

1. Mike Horn – SEH - Quality Assurance / Quality Control: Before joining SEH, Mike was a project manager for Three Rivers Park District. Mike managed all of Three Rivers Park District's projects either studying or adding winter recreation needing snow to Park District parks. As the Park District's consulting engineer, Paul worked with Mike on all of those projects. Since joining SEH, and on behalf of Edina, Mike has been inspecting Edina's contractor's work reconstructing both the Driving Range and Executive Golf Course in Braemar Park.
2. Noah Brautigam – Morton Trails – Cross Country Ski Trail Design: Morton Trails helped us 'trail blaze' the most challenging portions of the cross country ski trails receiving snow that were added to Three Rivers Park District's Hyland Lake Park Reserve. We worked together to assure that the added trail alignments would be both safe and enjoyable to ski. This time Noah will help us 'trail blaze' the most challenging portions of the trails the City might add to Braemar Park. The goal remains assuring a trail design that all of Edina's property owners and visitors can ski safely and enjoyably.
3. Dave Belin – RRC Associates - Market Analysis / Financial Model Preparation: Prepared an analysis and model for Three Rivers Park District during their study of potential summer time alpine activities at Hyland Ski and Snowboard Area. As our subconsultant, Dave just completed an analysis and model for a proposed winter recreation area in Sioux City, Iowa.
4. Mark Meadows and Mike Parsons – Torrent Engineering and Equipment and HDR Engineering Respectively - Snowmaking Engineering and Noise Impact Study Preparation Respectively: Were both SEH subconsultants on Three Rivers Park District projects to reconstruct the snow making system at Hyland Ski and Snowboard Area and add snowmaking to cross country ski trails in Hyland Lake Park Reserve. Mark was the lead snowmaking engineer for the last two winter Olympic games in Vancouver, Canada and Sochi, Russia. He is currently designing the snowmaking for 2018 Winter Olympics in South Korea. Additionally, since 2002, Mark has been our subconsultant for all our winter recreation area projects needing snow.
5. Ken Taillon and Tom Honer – SEH – Trail Lighting and Electrical Power Distribution Design: Ken and Tom have provided these services for all our winter recreation area projects. Additionally, Ken has designed outdoor lighting for the City on numerous occasions as part of our street and utility reconstruction projects.
6. Toby Muse - SEH – Site Civil Engineering: Besides taking over project manager duties from Paul for the last 6 street and utility reconstruction projects completed by SEH for Edina, Toby is managing Three Rivers Park District's project to add the 9-Mile Creek Regional Trail to Edina.
7. Deric Deuschle- SEH – Environmental: On behalf of Edina, Deric is providing wetland delineation and environmental permitting services for the project that will reconstruct the 27-hole golf course to and 18-hole golf course at Braemar Park. He provided these same services during the reconstruction of both the Driving Range and Executive Golf Course in Braemar Park.

## **Fee**

Our experience with similar winter recreational projects reveals these specialty engineering services can cost as much as 21% of the project's construction cost. Of this 21%, the study and bid document preparation phases alone can cost as much as 5% and 8% respectively. Construction phase services (construction staking, inspection, and administration) usually require the balance of the 21%.

A very schematic level consideration of this project reveals its total project cost can be between \$2,000,000 and \$3,000,000. If we assume a construction cost of \$2,500,000 our estimated not-to-exceed fee described by the table below for study and bidding document preparation is 13% of the very schematic level construction budget. This is consistent with our experience for the scope of work required by this particular specialty project.

<b>Fee Summary Per Work Item</b>		
<b>No.</b>	<b>Description</b>	<b>Estimated Not to Exceed Fee <sup>1</sup></b>
1	Prepare Study	\$138,131
2	Prepare Bidding Documents and Provide Bidding Assistance	\$192,146
<b>Subtotal</b>		<b>\$330,277</b>
3	Provide Construction Phase Services	To Be Determined

Notes:

<sup>1</sup> Includes reimbursable expenses including subconsultant fees.

The City will be billed on an hourly basis subject to the not to exceed fee. The hourly billing rates are attached as Exhibit 2. The fees reported in this table are calculated in detail in the attached task hour budget. We will invoice the City monthly on an hourly basis. Our invoices will include expenses. The City may stop work at any time. If the Council chooses to stop work, we will immediately stop work and you will only be billed for work that has been completed.

### **Conclusion**

This Supplemental Letter Agreement, Exhibit 1, Task Hour Budget, Exhibit 2, and our Agreement dated June 4, 2013 represent the entire understanding between the City of Edina and SEH in respect to the project.

Our combination of park design professionals, real world snowmaking experience, and market analysis/financial model preparation expertise will ensure that all of the Edina's immediate and long-term needs are covered. We sincerely appreciate our continued working relationship with the City. Please contact me at 952.912.2611 or [ppasko@sehinc.com](mailto:ppasko@sehinc.com) with questions regarding this Supplemental Letter Agreement.

Sincerely,

SHORT ELLIOTT HENDRICKSON INC.



Paul J. Pasko III, PE  
Project Manager

Enclosures

c: Dave Belin, RRC Associates  
Noah Brautigam, Morton Trail Consultants  
Mark Meadows, Torrent Engineering and Equipment  
Mike Parsons, HDR  
Marty Iozzo, General Corrosion Corporation  
Toby Muse, SEH  
Mike Horn, SEH  
Ken Taillon, SEH  
Tom Honer, SEH  
Brent Theroux, SEH  
Mike Hemstad, SEH

Ann Kattreh  
May 11, 2016  
Page 6

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Accepted on this \_\_\_\_ day of \_\_\_\_\_, 2016

**City of Edina, Minnesota**

By: \_\_\_\_\_  
James Hovland, Mayor

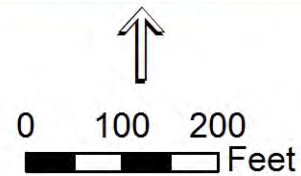
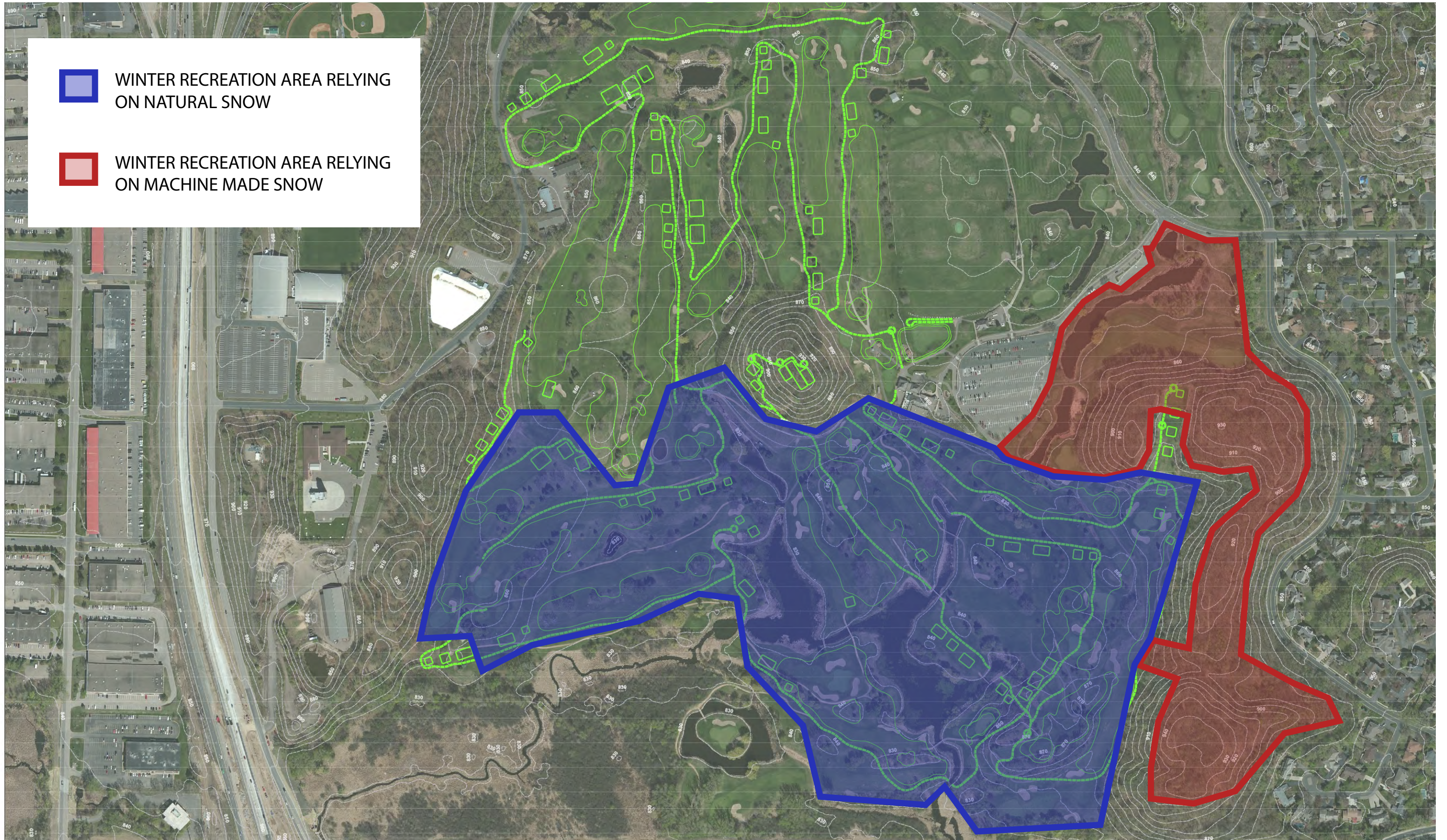
\_\_\_\_\_  
Scott Neal, City Manager



WINTER RECREATION AREA RELYING ON NATURAL SNOW



WINTER RECREATION AREA RELYING ON MACHINE MADE SNOW



Project: 136169  
May 17 2016

Map by: MMS  
Projection: NAD\_1983\_UTM\_Zone\_15N  
Transverse\_Mercator  
Source:

# WINTER RECREATION AREA AT BRAEMAR PARK

City of Edina

Exhibit  
1

This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and SEH does not represent that the GIS Data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.



**Task Hour Budget**  
**Winter Recreation Area at Braemar Park**

City of Edina

May 11, 2016

		ESTIMATED HOURS															ESTIMATED COST	
PROJECT TASKS		Client Service Manager	Project Manager	Senior Structural Engineer	Structural Engineer	Senior Designer	Electrical - Lighting	Electrical - Power	Electrical Staff Engineer	Senior Geotech Engineer	Natural Resources	Project Engineer	GIS	Landscape Architect	Survey Crew Chief	Survey Instrument Operator		Admin Tech
<b>1.0 Feasibility Study (1)</b>																		
1.1	<b>Summary &amp; Location</b>																	
	Summary & Location (2)																	
	<b>Subtotal Hours</b>																	
	<b>Subtotal Labor Cost</b>																	
1.2	<b>Initiation and Issues</b>																	
	Initiation and Issues (3)																	
	<b>Subtotal Hours</b>																	
	<b>Subtotal Labor Cost</b>																	
1.3	<b>Existing Conditions</b>																	
1.3.1	Property (4)	1												4			2	
1.3.2	Utilities (5)	1												2			4	
1.3.3	Traffic (6)													2				
1.3.4	Trails (7)													4			2	
1.3.5	Water Well and Pumping (8)													4				
1.3.6	Lighting (9)													4				
1.3.7	Operations (10)													4				
1.3.8	Financial (11)(12)																	
1.3.9	Existing Golf Course Improvement Project Coordination (13)										8			2				
1.3.10	Review Geotechnical (33)			4	2													
	<b>Subtotal Hours</b>	2		4	2						8			26			8	
	<b>Subtotal Labor Cost</b>	\$296		\$698	\$234						\$1,160			\$3,723			\$834	\$6,945
1.4	<b>Proposed Improvements</b>																	
1.4.1	Property (14)											4		2			4	
1.4.2	Utilities (15)							8	24			4		2			4	
1.4.3	Trails (16)(17)	4										4		12			4	
1.4.4	Tubing (19)													4				
1.4.5	Water Well and Pumping (18)(58)							2										
1.4.6	Lighting (20)						24		24					2				
1.4.7	Noise Study (21)(22)																	
1.4.8	Corrosion Protection (23)																	
1.4.9	Operations (24)																	
1.4.10	Lift Options and Requirements																	
1.4.11	Financial (25)																	
1.4.12	Booster Station Pad and Foundations			6	12	12												
1.4.13	Coordinate with Prefab Building Supplier			2	4													
1.5	<b>Project Cost / Schedule / Feasibility</b>																	
1.5.1	Statement of Estimated Probable Cost																	
1.5.1.1	Construction Cost	4										32		12			4	
1.5.1.2	Soft Cost (26)						2	1	8									
1.5.2	Project Schedule																	
1.5.3	Feasibility Statement			4			2	2										
1.5.4	Appendix (27)	2										12					4	
1.5.5	Pad for Snowmakers (no foundation)				2	2												
1.5.6	Foundations for Handle-tow at Tubing Hills (39)			8	12	20												
1.5.7	Details			8	12	16												
1.5.8	Cost Estimate for Study			2	4													
1.5.9	Footings for Lighting behind Retaining Walls			4		4												
1.5.10	QAQC		16															
		6	16	26	30	42	4	3	8			44		12			8	
		\$887	\$3,343	\$4,537	\$3,505	\$5,729	\$741	\$673	\$1,065			\$4,106		\$1,718			\$834	\$27,139
1.6	<b>Trail Alignment (28)</b>																	
1.6.1	Field Mark Trail Alignment Options (16)	2	4	2	2		8					12	8	24	12	12	2	



				ESTIMATED HOURS														ESTIMATED COST			
PROJECT TASKS				Client Service Manager	Project Manager	Senior Structural Engineer	Structural Engineer	Senior Designer	Electrical - Lighting	Electrical - Power	Electrical Staff Engineer	Senior Geotech Engineer	Natural Resources	Project Engineer	GIS	Landscape Architect	Survey Crew Chief		Survey Instrument Operator	Admin Tech	
		1.6.2	Schedule Field Review													2					
		1.6.3	Field Review													8					
		1.6.4	Final Alignment Decision and Approval (69)												8	2					
				2	4	2	2		8					12	16	36	12	12	2		
				\$296	\$836	\$349	\$234		\$1,482					\$1,120	\$2,112	\$5,155	\$1,248	\$1,114	\$209	\$14,154	
1.7			<b>Public Involvement (70)</b>																		
		1.7.1	Public Review		4											20					
		1.7.2	Council Review and Approval		4										4	2					
		1.7.3	Sub Consultant Attendance (71)																		
			<b>Subtotal Hours</b>		8										4	22					
			<b>Subtotal Labor Cost</b>		\$1,672										\$528	\$3,151				\$5,350	
<b>2.0 Bid Document Preparation</b>																					
2.1			<b>Data Collection</b>																		
		2.1.1	Architecture (29)(30)																		
		2.1.2	Civil(31)	8	16									24		20					
		2.1.3	Topographic Survey(32) (63)													8	56	56			
		2.1.4	Geotechnical (33) (65) (66) (67) (68)								80										
		2.1.5	Electrical - Power (34)							2	4										
		2.1.6	Electrical - Lighting (35)						4		4										
		2.1.7	Mechanical(36)																		
		2.1.8	Corrosion Protection Study (37)									2									
		2.1.9	Structural (38)																		
		2.1.10	Noise Study (40)																		
			<b>Subtotal Hours</b>	8	16				4	2	8	82		24		28	56	56			
			<b>Subtotal Labor Cost</b>	\$1,182	\$3,343				\$741	\$448	\$1,065	\$12,770		\$2,240		\$4,010	\$5,823	\$5,198			\$36,820
2.2			<b>Plan Sheets</b>																		
		2.2.1	Title Sheet Signatures																		
		2.2.2	Site Plan Pump House Area (41)													12					
		2.2.3	Civil (42)(43)(44)(45)(46)(64)	4	12						20			140		12					
		2.2.4	Site & Grading (47)											40		24					
		2.2.5	Erosion Control Plan (48)										8	8							
		2.2.6	Electrical - Power (49)							8	20										
		2.2.7	Corrosion Protection (50)																		
		2.2.8	Electrical - Lighting (51)						24	2	20	2									
		2.2.9	Mechanical (52)(59)																		
		2.2.10	Structural (53)			2		4				4									
		2.2.11	Retaining Wall (64)			8	6	4				8				12					
			<b>Subtotal Hours</b>	4	12	10	6	8	24	10	40	34	8	188		60					
			<b>Subtotal Labor Cost</b>	\$591	\$2,507	\$1,745	\$701	\$1,091	\$4,447	\$2,242	\$5,327	\$5,295	\$1,160	\$17,546		\$8,592					\$51,244
2.3			<b>Meetings</b>																		
			Meetings (54)						3	3	3										
			<b>Subtotal Hours</b>						3	3	3										
			<b>Subtotal Labor Cost</b>						\$556	\$673	\$399										\$1,628
2.4			<b>Project Manual</b>																		
		2.3.1	Front End Sections (55)	2												12				4	
		2.3.2	Bidding Requirements (56)	2												12				2	
		2.3.3	Specifications (City of Edina)	2					8	10						8				4	
		2.3.4	Special Provision (64)	8		8										24				12	
		2.3.5	Pump Skid (59)							8											
		2.3.6	Appendix (57)	2												24				2	
			<b>Subtotal Hours</b>	16		8			8	18						80				24	
			<b>Subtotal Labor Cost</b>	\$2,364		\$1,396			\$1,482	\$4,036						\$11,456				\$2,503	\$23,238
2.5			<b>Opinion of Probable Cost</b>																		
		2.4.1	Cost Estimate	2	4				2	1	8	4		32		16				2	
			<b>Subtotal Hours</b>	2	4				2	1	8	4		32		16				2	
			<b>Subtotal Labor Cost</b>	\$296	\$836				\$371	\$224	\$1,065	\$623		\$2,987		\$2,291				\$209	\$8,901

				ESTIMATED HOURS														ESTIMATED COST			
PROJECT TASKS				Client Service Manager	Project Manager	Senior Structural Engineer	Structural Engineer	Senior Designer	Electrical - Lighting	Electrical - Power	Electrical Staff Engineer	Senior Geotech Engineer	Natural Resources	Project Engineer	GIS	Landscape Architect	Survey Crew Chief		Survey Instrument Operator	Admin Tech	
<b>3.0 Bidding Assistance</b>																					
3.1			<b>Bidding Assistance</b>																		
	3.1.1		Ad for Bids																		
		3.1.1.1	Notice of Hearing and Letting																2		
		3.1.1.2	Notice to Bidders																2		
		3.1.1.3	Electronic Plan Room Coordination																2		
	3.1.2		Agency Review																		
		3.1.2.1	Watershed Permitting										2								
	3.1.3		Response to Bidders																		
		3.1.3.1	Site Civil								8			8							
		3.1.3.2	Electrical Distribution							2	4										
		3.1.3.3	Lighting						8		4										
		3.1.3.4	Mechanical (59)																		
		3.1.3.5	Distribution Piping (59)																		
		3.1.3.6	Pump House																		
	3.1.4		Structural								2										
	3.1.5		Addendums											8							
	3.1.6		Bid Opening																		
		3.1.5.1	Prepare Tabulation of Bids																4		
		3.1.5.2	Prepare Recommendation of Contract Award																2		
3.2			<b>QAQC</b>	12	24																
			<b>Subtotal Hours</b>	12	24			8	2	8	10	2	16						12		
			<b>Subtotal Labor Cost</b>	\$1,773	\$5,015			\$1,482	\$448	\$1,065	\$1,557	\$290	\$1,493						\$1,252	\$14,376	
				Client Service Manager	Project Manager	Senior Structural Engineer	Structural Engineer	Senior Designer	Electrical - Lighting	Electrical - Power	Electrical Staff Engineer	Senior Geotech Engineer	Natural Resources	Project Engineer	GIS	Landscape Architect	Survey Crew Chief	Survey Instrument Operator	Admin Tech	ESTIMATED COST	
<b>PROJECT COST SUMMARY</b>																					
<b>1.0 Feasibility Study (1)</b>																					
			<b>Subtotal Hours</b>	14	28	40	50	54	36	13	56		8	68	20	118	12	12	30	559	
			<b>Subtotal Labor Cost</b>	\$2,069	\$5,851	\$6,980	\$5,841	\$7,366	\$6,670	\$2,915	\$7,457		\$1,160	\$6,346	\$2,640	\$16,898	\$1,248	\$1,114	\$3,129	\$77,694.00	
			<b>Subtotal Expenses</b>																	\$1,685.00	
			RRC Associates (62)																	\$19,332.00	
			Torrent Engineering (58) (61)																	\$9,720.00	
			HDR																	\$16,200.00	
			General Corrosion																	\$2,700.00	
			Morton Trails																	\$10,800.00	
			<b>Subtotal</b>																	\$138,131.00	
<b>2.0 Bid Document Preparation</b>																					
			<b>Subtotal Hours</b>	30	32	18	6	8	41	34	59	120	8	244		184	56	56	26	922	
			<b>Subtotal Labor Cost</b>	\$4,433	\$6,686	\$3,141	\$701	\$1,091	\$7,597	\$7,623	\$7,857	\$18,687	\$1,160	\$22,772		\$26,350	\$5,823	\$5,198	\$2,712	121,831.00	
			<b>Subtotal Expenses</b>																	\$500.00	
			Soil Borings Braun Intertec																	\$14,040.00	
			HDR																	\$4,320.00	
			Torrent Engineering (59)																	\$23,760.00	
			Morton Trails																	\$8,800.00	
			<b>Subtotal</b>																	\$173,251.00	
<b>3.0 Bidding Assistance</b>																					
			<b>Subtotal Hours</b>	12	24				8	2	8	10	2	16						12	94
			<b>Subtotal Labor Cost</b>	\$1,773	\$5,015				\$1,482	\$448	\$1,065	\$1,557	\$290	\$1,493						\$1,252	\$14,375.00
			<b>Subtotal Expenses</b>																		\$200.00
			Torrent Engineering (60)																		\$4,320.00
			<b>Subtotal</b>																		\$18,895.00
<b>TOTAL COST ASSOCIATED WITH THIS PROPOSAL:</b>																					\$330,277.00

		ESTIMATED HOURS														ESTIMATED COST	
	PROJECT TASKS	Client Service Manager	Project Manager	Senior Structural Engineer	Structural Engineer	Senior Designer	Electrical - Lighting	Electrical - Power	Electrical Staff Engineer	Senior Geotech Engineer	Natural Resources	Project Engineer	GIS	Landscape Architect	Survey Crew Chief		Survey Instrument Operator

P:\AE\Edina\136169\1-gen\10-setup-cont\03-proposal\05 06 16 Brmr THB- .xlsx]Hours-Costs

- (1) The format will follow established City of Edina format for Feasibility Study.
- (2) Basic information to include summary and address
- (3) To include existing CIP or existing plan information and process for public meeting.
- (4) 1. To include existing park use, boundaries and buffers, 2. Project Limits, 3. Project area with relationship with Club House and Parking.
- (5) 1. To include known public utilities and locations, 2. Existing available power, and use, 3. Private utilities locations and use, 4. Existing Irrigation System as built provided by City.
- (6) Assumes existing pedestrian and vehicle traffic patterns will not be impacted, thus there is no additional traffic study effort included in this proposal.
- (7) To include existing location of trails and their use.
- (8) City to provide copy of existing permit status, permit quantities allowed, quantities used and water temperature.
- (9) To include existing lighting in the project area, parking area and Exterior Club House
- (10) City staff to provide list of existing staffing levels and existing equipment that will be utilized for Snowmaking
- (11) City to provide existing expenses and revenues for study.
- (12) RRC Associates will be hired as a sub-consultant to SEH to complete this work
- (13) City to directly coordinate with golf course architect if any changes are needed due to WRA
- (14) Includes; 1. project limits and, 2. connections to existing Club House and Parking Area
- (15) To include; 1. any required upgrades to public or private utilities, 2. estimated additional power use, 3. changes to existing irrigation system.
- (16) SEH will field mark a primary alignment in the Area A with up to two alternatives in the ascent area and the south area as noted on the Exhibit One, and a primary alignment in Area B with changes up to 25% of the total length of the primary alignment as noted on Exhibit One.
- (17) Trail alignments outside of the project area for non-snowmaking trails will be the responsibility of the City.
- (18) Torrent to provide; 1. additional power requirements and pumping needs, 2. Impacts to permit, 3. Water temperature impacts to snowmaking and possible solutions/costs, 4. snowmaking distribution layout, 5. Radon in water, we will need help/input from SEH on this.
- (19) Tubing area study to be limited to notes 28 and 29 on Exhibit A.
- (20) To include; 1. trail lighting needs, 2. Photometric graphic, 3. any recommended changes to existing course or exterior club house lighting, 4. any recommended changes to parking lot lighting.
- (21) HDR to provide results of noise data including a graphic representing the level of noise spill levels.
- (22) SEH to provide additional LIDAR information if needed to HDR graphic
- (23) General Corrosion to study existing soil conditions for conductivity.
- (24) To include recommendations for staffing and equipment addition required for Snowmaking and Grooming Operations
- (25) RRC Associates will provide projected expenses and revenues.
- (26) To include design and construction contingencies, consultant fees, equipment costs.
- (27) To include; 1. Public meeting information, 2. Utility Information, 3. Existing Site Plan, 4. New Golf Course Plan, 5.
- (28) Trail Alignment Design Decision to be made by SEH, Morton Trails and City Staff.
- (29) Scope - No Architecture work included. Pump House Architecture provided by Torrent.
- (30) City to provide as-built of existing pump house
- (31) Civil to include base mapping, aerial imaging, topographic mapping and site photos
- (32) Survey to include: 1. Gopher State One Call for design locate, 2. Topo in key areas, 3. Significant tree locations, 4. Field staking of preliminary alignment, 5. Soil Boring locations
- (33) Includes soil boring investigation (up to 14 borings), geotechnical evaluation, and technical memorandum summarizing investigation, evaluation and recommendations.
- (34) Review existing electrical infrastructure, existing public and private utilities, coordination and meeting with Xcel Energy, coordination with primary distribution, location of 3-phase power source.
- (35) Review existing light code for city, hours of operations and lighting impacts, provide a graphic of light spill area.
- (36) Survey of existing pumping equipment
- (37) General Corrosion report on existing soil conductivity.
- (38) Structural survey of existing pump house structure.
- (39) Lift location identified if included in the project.
- (40) Identify study area and set up data collection in field
- (41) Existing pump house modification (if needed) and new pump house plans, fencing, landscaping, equipment storage area.
- (42) Civil; Removals, Clearing and Grubbing, Tree Removal Plan, Construction staging area, and Access route plan
- (43) To include final trail alignment, to be staked and approved by city.
- (44) Tubing area to be limited to notes 28 and 29 on Exhibit A.
- (45) Pedestrian/Golfer Control Plan if Construction Schedule is during golf season.
- (46) No pedestrian or vehicle traffic plan is included in this proposal
- (47) Site Grading; Pump house site and grading plan, general grading plan, retaining wall locations, Turf establishment, pruning details
- (48) Erosion Control Plan to include coordination with Watershed District, permitting, and development of Stormwater Pollution Prevention Plan (SWPPP).
- (49) Electrical - Power to include main power needs, coordination with Xcel, pump skid power needs, power plan for pumping, power distribution for snowmaking.
- (50) A detail of cathodic protection will be developed if recommended by General Corrosion
- (51) Electrical - Lighting Plan to include site, trail, pump house, service cabinet, transformer details.
- (52) Mechanical to include force main, pump house plan, snowmaking equipment pre-order.
- (53) Structural to include modifications to existing pump house and new pump house, Retaining wall design and review, lift if required.
- (54) Meeting with City staff review to include; 1. One review at 50% bid documents, One at 90% bid documents, Up to one additional.
- (55) Front End: Title Sheet, Certification Sheet, Table of Contents
- (56) Bidding Requirements; Bid Form, Instructions To Bidders, Advertisement for Bids
- (57) Appendix to include City of Edina standard plates, Permits, soil borings
- (58) Feasibility
  - Feasibility Items as applicable to Torrent expertise and the snowmaking system
  - Includes system capacity & snowmaking equipment recommendations, pump station mechanical & electrical design as related to the process equipment, and the distribution piping system
  - Power requirements
  - Water temperature impact and cooling options
- (59) Bid Docs Prep
  - Includes pump station and distribution piping system mechanical design, plan sheets, bid docs
- (60) Bidding Assistance, for items pump station and distribution piping system
  - For items in 1.0 and 2.0 above.

		ESTIMATED HOURS														ESTIMATED COST	
	PROJECT TASKS	Client Service Manager	Project Manager	Senior Structural Engineer	Structural Engineer	Senior Designer	Electrical - Lighting	Electrical - Power	Electrical Staff Engineer	Senior Geotech Engineer	Natural Resources	Project Engineer	GIS	Landscape Architect	Survey Crew Chief		Survey Instrument Operator

(61) Includes cost for 1 site visit.

(62) Financial Analysis, including size/depth of market, competitive analysis, and financial modeling (ticket and other revenues, operating expenses). For Nordic only = \$9,400, for Nordic and Tubing = \$12,900. This also includes a trip to MN for a meeting.

(63) Divide site into 5 areas of concern. All survey work will need to be done using the Total Station with a 2 man operation. Estimated 26 control Points, but most likely will need more in dense areas. Assuming borings, centerline alignment stakes and topo can be done with each trip. Additional time will be added depending on what's needed for specific trees within the corridor. A centerline shot, 15 ft and 30 ft left and right for 60 ft corridor for topo limits. Includes any significant grade breaks inside that corridor. Surveyors will be provided with a DXF map showing the corridor limits and centerline alignment for staking. Surveyors will also be provided with a .csv file for staking borings.

(64) Includes signed plan sheets and special provisions for up to 2 modular block retaining walls.

(65) Assumes geotechnical evaluation considers; up to 2 modular block retaining walls, booster station foundation, light pole foundations, tow machinery foundations, pipe subgrade/bedding, general earthwork.

(66) Soil boring investigation will be performed by Braun Intertec using a rubber tracked geoprobe rig. Assumes proposed boring locations will be accessible to Braun, SEH staff, and utility locators. Braun drill crew will attempt to minimize any rutting or other damage to landscaping and lawns; however, Braun and SEH will not be responsible for repairs needed as a result of drilling operations.

(67) Assumes the Park District will repair damage to the golf course resulting from the soil boring investigation.

(68) The Park District understands that noise levels will be higher at the golf course on the days we are performing the soil boring investigation. The Park District will be responsible for communicating the potential for disruptive noise levels and vehicle activity to golf course users.

(69) Final Alignment to be decided upon the conclusion of the field visit and graphically represented for a sign-off from City staff to move forward with the SEH team to start piping, electrical, grading plans.

(70) SEH to attend up to: 1. One Park Commission Meeting, 2: One City Council Meeting, 3. Two on-site staff meetings, 4 City to reserve and hold meetings at Braemar Club House, 5. City to send out invitations to public meetings, distribute, collect and publish public comments.

(71) Sub Consultant attendance for one public meeting and one additional meeting if needed for Torrent, RRC, HDR, and Morton Trails

**SEH Hourly Billable Rates – Winter Recreation Area at Braemar Park**

<b>Classification - Office Staff</b>	<b>Billable Rate</b>
Client Service Manager	\$147.76
Project Manager	\$208.95
Senior Structural Engineer	\$174.51
Structural Engineer	\$116.83
Senior Designer	\$136.40
Electrical Engineer - Lighting	\$185.28
Electrical Engineer - Power	\$224.22
Electrical Staff Engineer	\$133.16
Senior Geotech Engineer	\$155.73
Natural Resources Scientist	\$145.05
Project Engineer	\$93.33
Project GIS Analyst	\$131.99
Landscape Architect	\$143.21
Administrative Technician	\$104.31

<b>Classification – Field Staff</b>	<b>Billable Rate</b>
Survey Crew Chief	\$103.97
Survey Instrument Operator	\$92.83

