



The CITY of  
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# Winter Recreation at Braemar Park

Park Board Meeting

August 8, 2016

# Production Schedule Key Milestones



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Description	Date
Park Board Introduction	April
City Council – Start Feasibility Study	May 17
City Council Update – Trail & Financial Feasibility	June 7
City Council Update – Trail & Financial Feasibility (Direction to continue feasibility study)	June 21
Feasibility Study – Sound, Light, and Snow Spill Modeling and Cont’d Financial/Operational Study	June & July
Public Open House	July 13
Park Board Review	August 8

# Production Schedule Key Milestones - Continued



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Description	Date
Complete Study	August 29
City Council Public Hearing – Request for Bid Document Preparation	September 7
<b>FOLLOWING MILESTONES <u>ONLY</u> OCCUR IF AUTHORIZED BY THE CITY COUNCIL</b>	
City Council Bid Authorization	November 1
Bid Project	Nov. 2 – Dec. 2
Open Bids	December 2
Bid Award	December 20, 2016
Construction	Jan – Sept 2017
Open for 2017/2018 Winter Season	December 2017

# Community Outreach



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- Press release
- Direct Mailing (3,600 households)
- July 13 Open House
- Sun Current
- Star Tribune
- City Extra
- Project Website
- Social Media
  - Facebook (7500+ followers)
  - NextDoor (8300+ members)

# Preliminary Market Analysis/ Financial Model Inputs



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- Two scenarios each – Tubing & XC Skiing / Only XC Skiing
  - Short season: 70 days (10 weeks, opening December 20 and closing March 1)
  - Long season: 84 days (12 weeks, opening December 20 and closing March 15)
- Pricing
  - \$9 for Nordic day ticket, \$75 for Nordic season pass
  - \$12 for Tubing (2-hour session)
- Cost savings for Labor, Insurance, Property Taxes, General & Administrative expenses
- No Food & Beverage revenue or expense in current financial model

# Preliminary Market Analysis/ Financial Model Budgeting



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- For Tubing and Nordic scenarios, both long and short seasons are operationally cash flow positive
- For Nordic-only scenarios, both long and short seasons are cash flow negative
- RRC Pro Forma Utilizes 40% of staffing from Braemar, along with support for marketing, general & administrative, and insurance
  - **\$50,000 in operational support from golf enterprise (\$30,000 in Nordic-only scenarios)**

# Tax Impact



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- **PRELIMINARY ESTIMATES ONLY**
- \$3 million total project cost
- Proposed tax levy is 4.9% increase for 2017
- 0.9 to 1.4% additional tax levy
- Impact to median (\$457,300) single family home would be approximately \$15 to \$20 per year



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What is  
Proposed?

## Snowmaking at Braemar Park

View to the Northwest



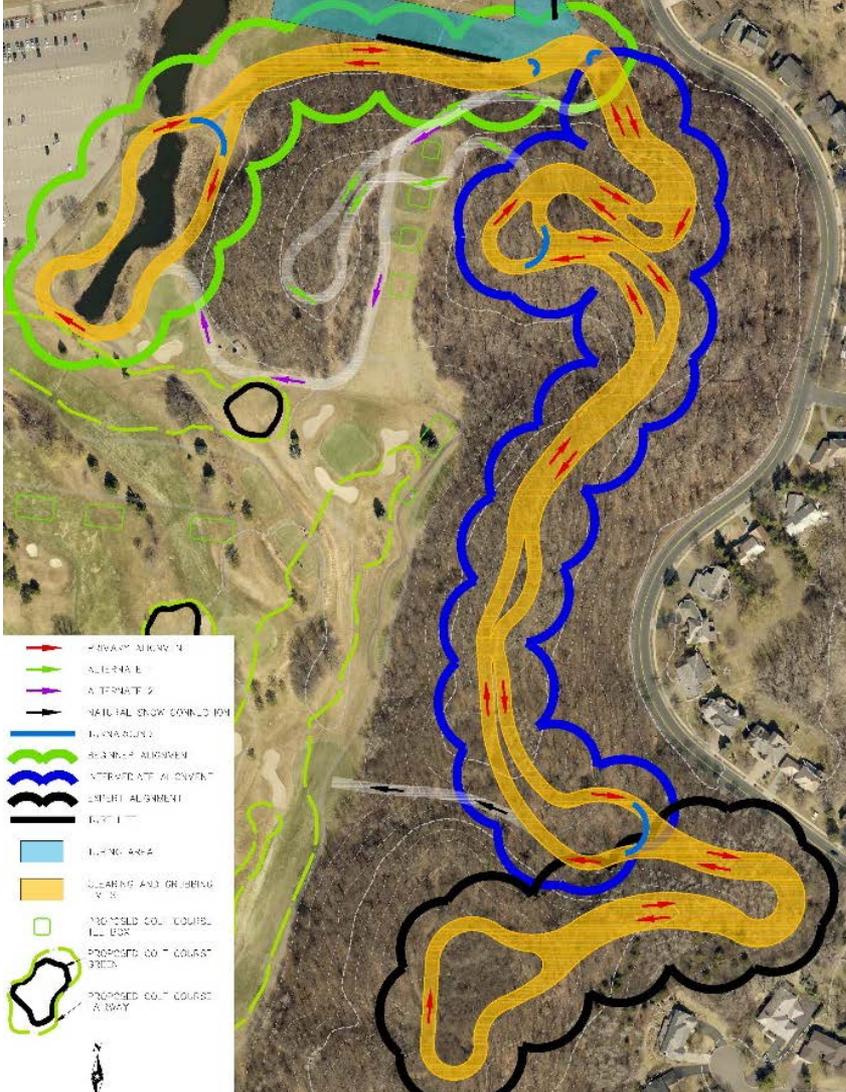
July 13, 2016



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# Cross – Country Ski Trail Alignment :

## Machine Made Snow

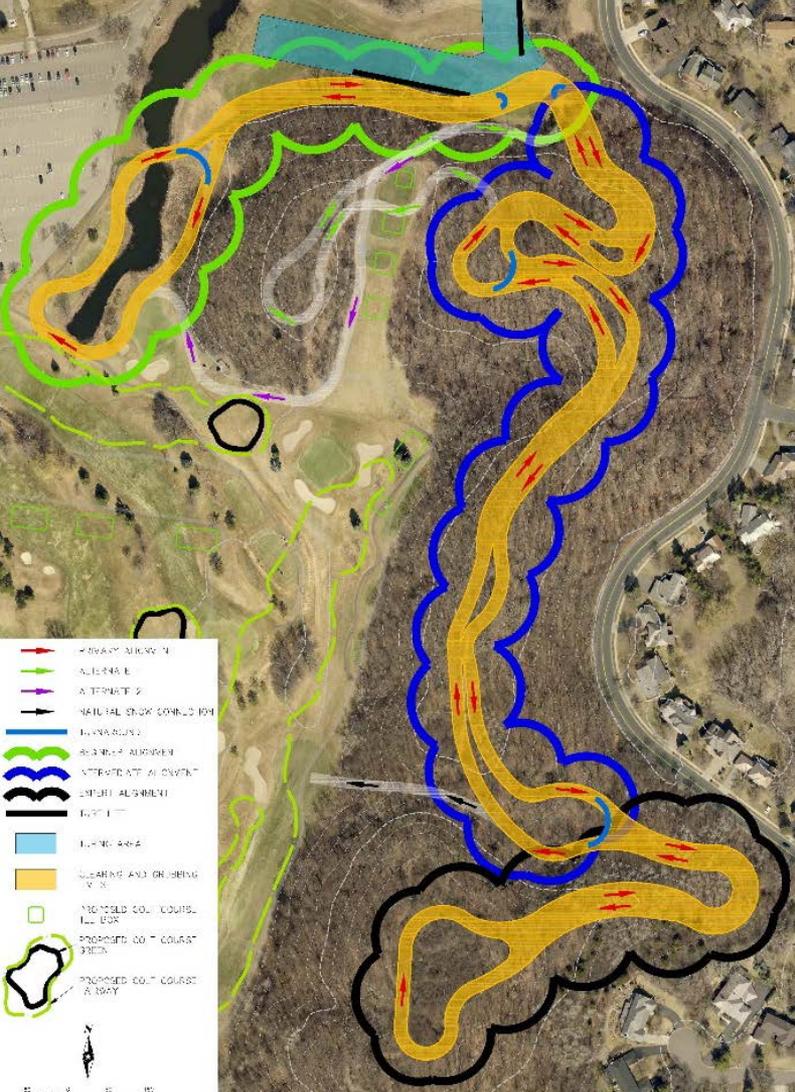


- FORWARD ALIGNED
- ← REVERSE
- ↔ ALTERNATE
- ↑ NATURAL SNOW CORRIDOR
- ↓ TURNAROUND
- 33 BOARDER ALIGNED
- 33 ALTERNATE ALIGNED
- 33 SPLIT ALIGNMENT
- 33 ROUTE
- TURNING AREA
- CLEARING AND GRUBBING
- 150' WIDE COLL. COURSE
- 150' WIDE COLL. COURSE
- PROPOSED COLL. COURSE
- PROPOSED COLL. COURSE



## • Trail Breakdown

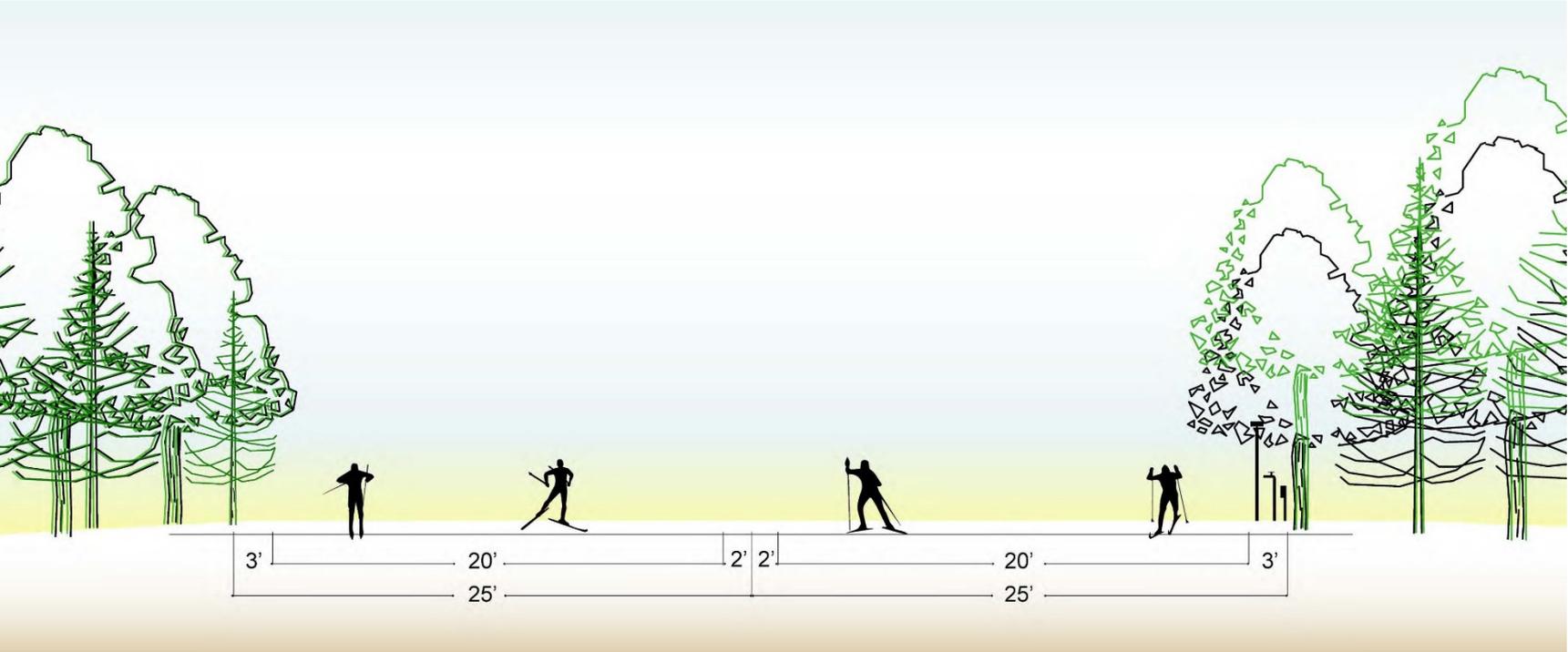
- **Beginner** – 0.8 km
- **Intermediate** – 1.45 km
- **Expert** - 0.75 km
- Strategic Turnarounds
- **Total Length – 3.0 km**



# Cross – Country Ski Trail Sections – 2 Way Trail



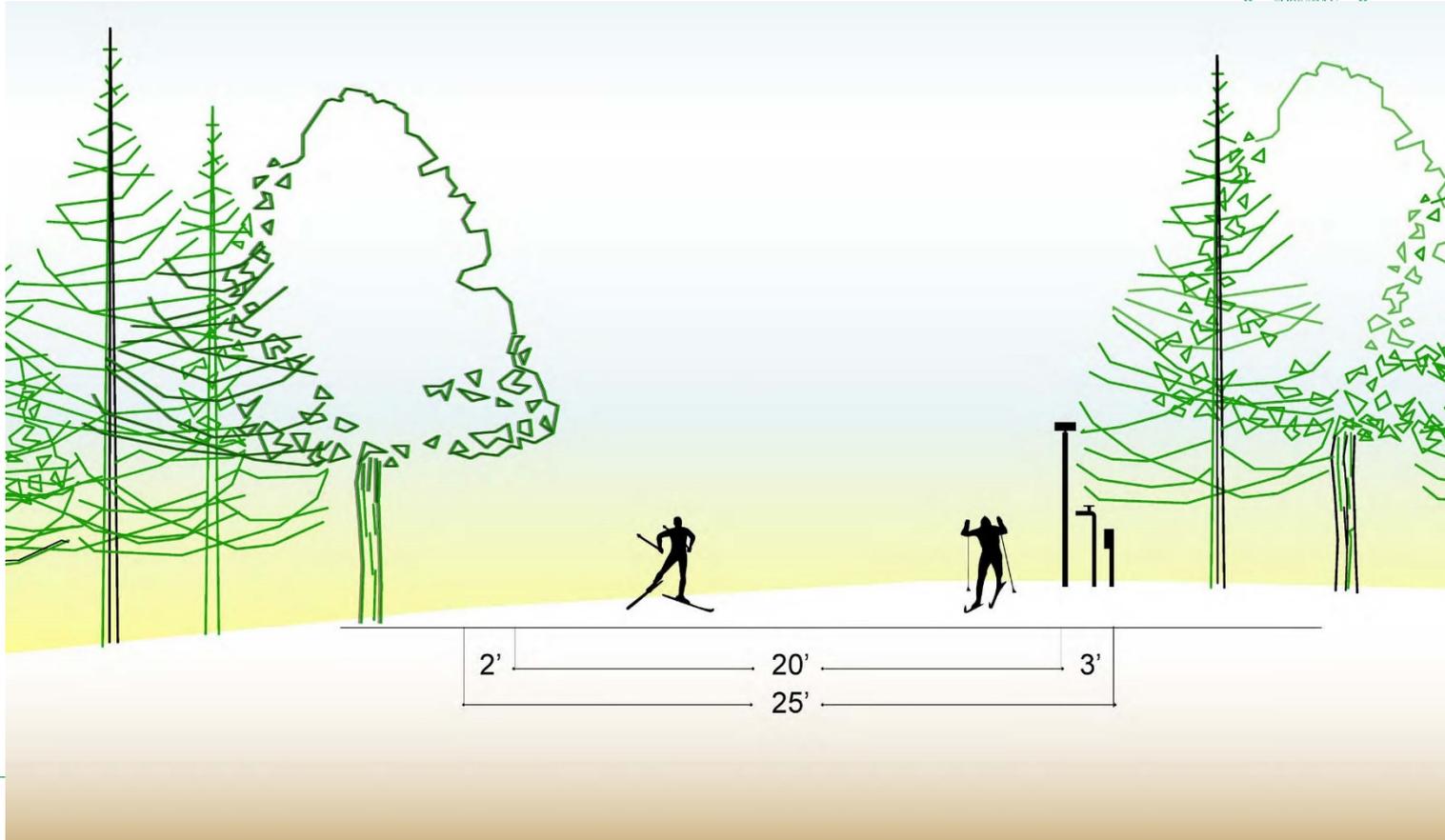
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# Cross – Country Ski Trail Sections – I Way Trail



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## LEGEND

-  Natural Snow Trail
-  Connection to Man Made Trail

MULTI-USE AREA:  
DISC GOLF  
PUTTING GOLF  
WALKING TRAILS  
PICNIC AREAS  
FIELD GAMES  
WATER ACTIVITIES  
SLEDDING/TUBING



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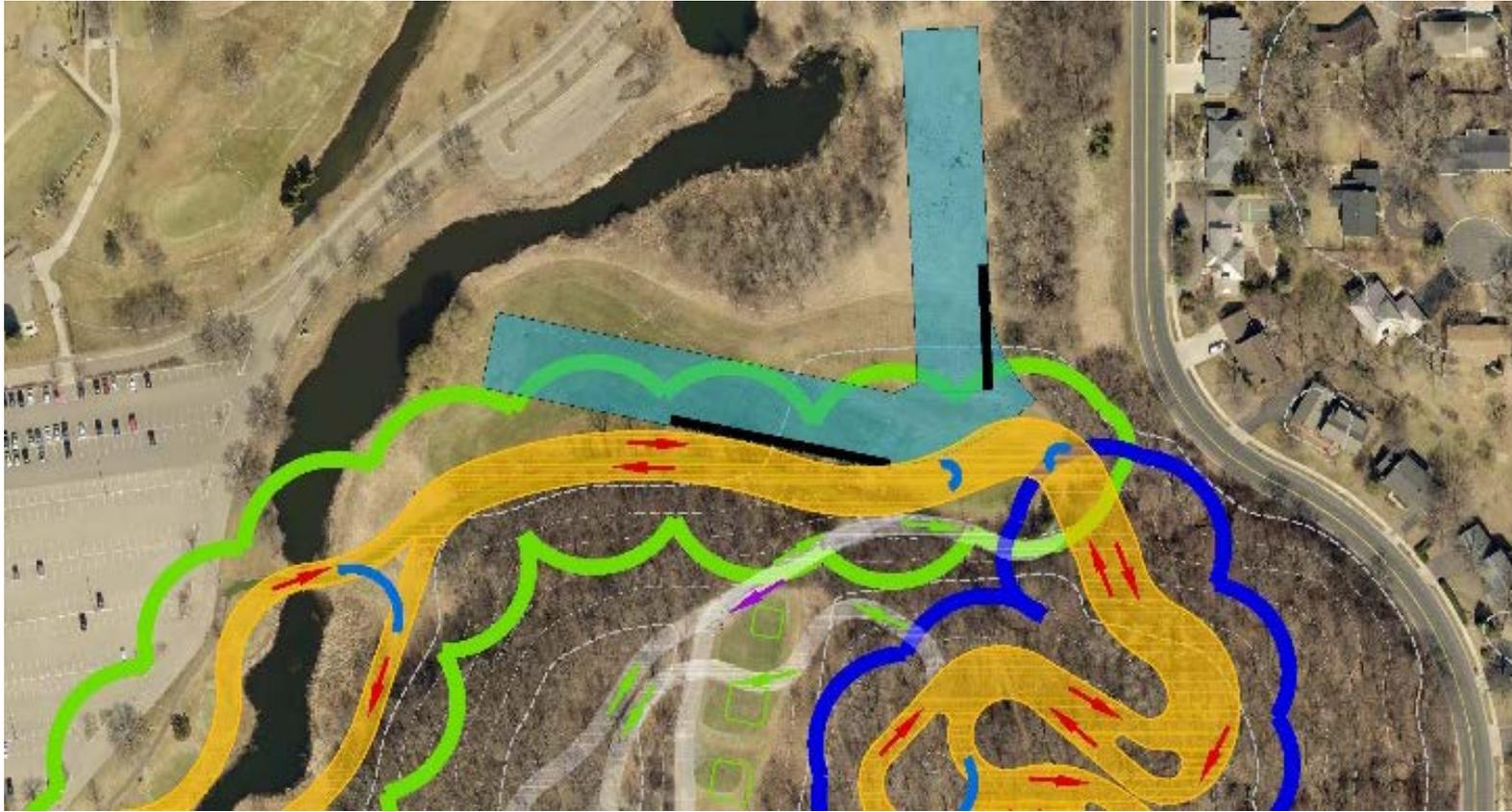
# Cross – Country Ski Trail Alignment : Natural Snow

- Connects to machine-made snow trail
- Upper Loop 3 km
- Lower Loop 4 km
- Probably no lighting

# Tubing Area



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# North Tubing Hill

- 25' of vertical drop
- 6 lanes
- 28% for 80' of run
- 300' runout
- Handle tow along left side





# Northwest Tubing Hill

- 25' of vertical
- 5 lanes
- 11' wide @
- 9% for 150' of run
- 300' runout
- Handle tow along right side



# Snow Tubing



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11' Lane



Handle Tow

# Winter: Fat Tire Biking



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- Dedicated Single Track with snow making— adjacent to beginner XC skiing
- Special Events – groom all XC trails w/ machine made snow



# Non–Winter: Single Track Mountain Biking



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- weave back and forth across cleared openings of XC trail



# Snowmaking Operation – Cross Country Skiing



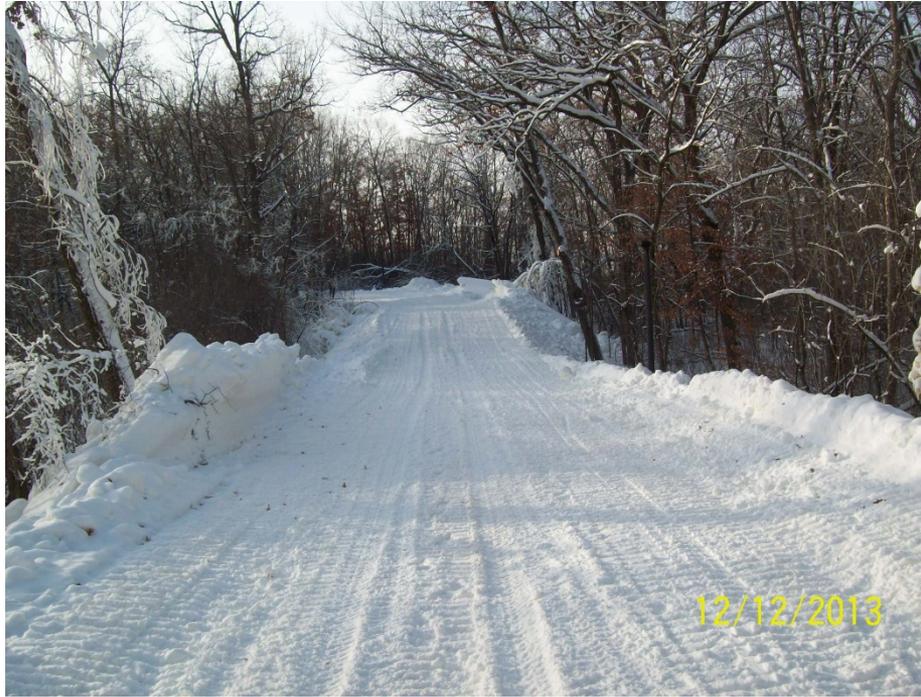
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# Snowmaking Operation – Cross Country Skiing



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# Snowmaking Operation

## Tubing



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Grooming Operations with  
a 'lane-maker'



# Impact - Construction



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# Impact - Construction



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# Impact - Expected Trail Side Equipment



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Lighting &  
Snowmaking Water &  
Electrical



Snowmaking Water  
& Power - Detail



Pipe Corrosion  
Protection

# Impact – Snow Making – Duration Needed



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- Open for Christmas Break
- November – 30 hours
- December - 100 hours
- 26 days @ about 5 hours per day – likely overnight
- Must be below about 28 degrees Fahrenheit
- 7 snow making machines fed by 2 – 60 hp pumps to via pipes:
- Convert 1.7 M gallons of water to 1.5’ of snow on 5.6 acres of XC trail
- Convert 1.9 M gallons of water to 3’ of snow on 3.1 acres of tubing area

# Impact – Potential Overspray with Machine-made Snow



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View to the  
Northwest

# Impact – Potential Overspray with Machine-made Snow



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View to the  
South

# Impact – Potential Overspray with Machine-made Snow



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## Examples

Day	Highest Wind Gust Speed (mph)	Average Wind Speed (mph)	Highest Gust Direction
1	35	14.4	W
2	33	15.2	W
3	29	12.9	W
4	21	8.1	S



# Impact – Noise From Machine-made Snow



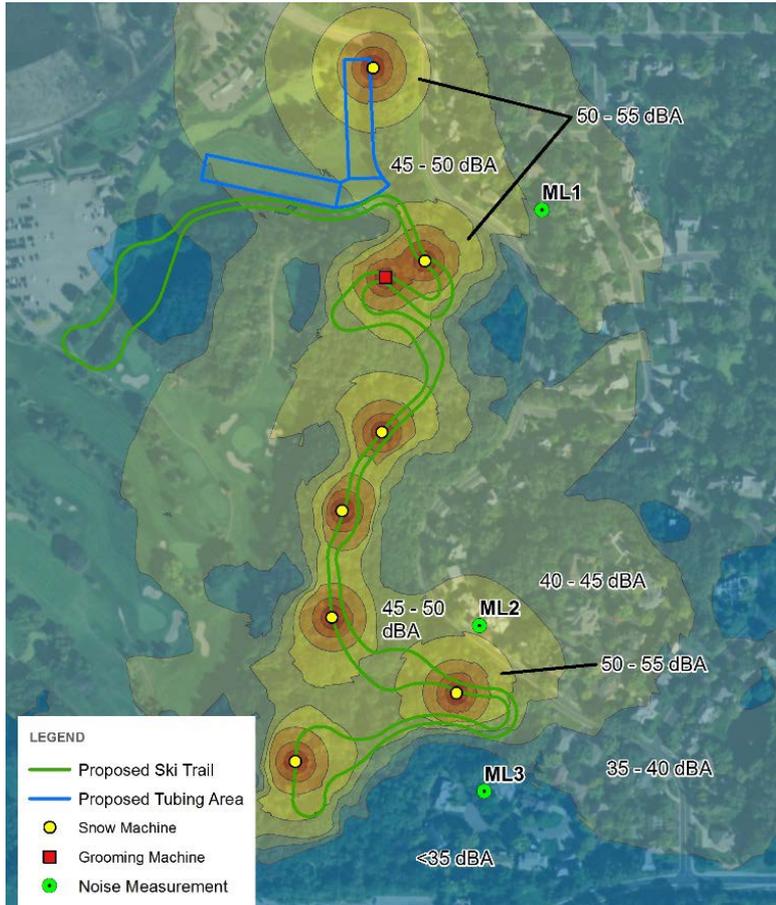
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# Impact – Noise From Machine-made Snow



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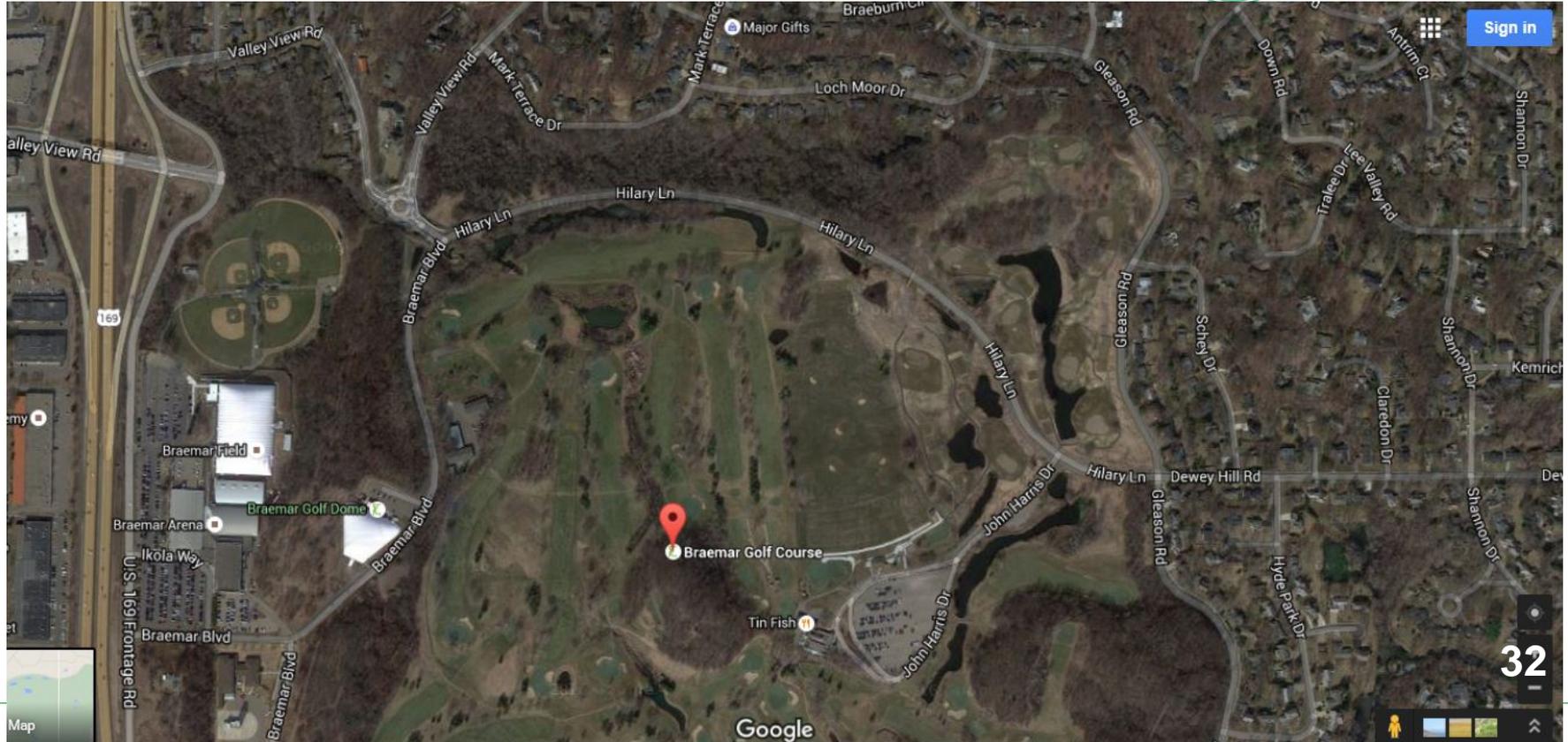
MPCA guidelines limit noise levels;  
60 dBA during the day  
50 dBA during the night

Snowmaking operations fall slightly  
below the night time limit of 50dBA.

# Impact – Light – Machine-made Snow Areas Only



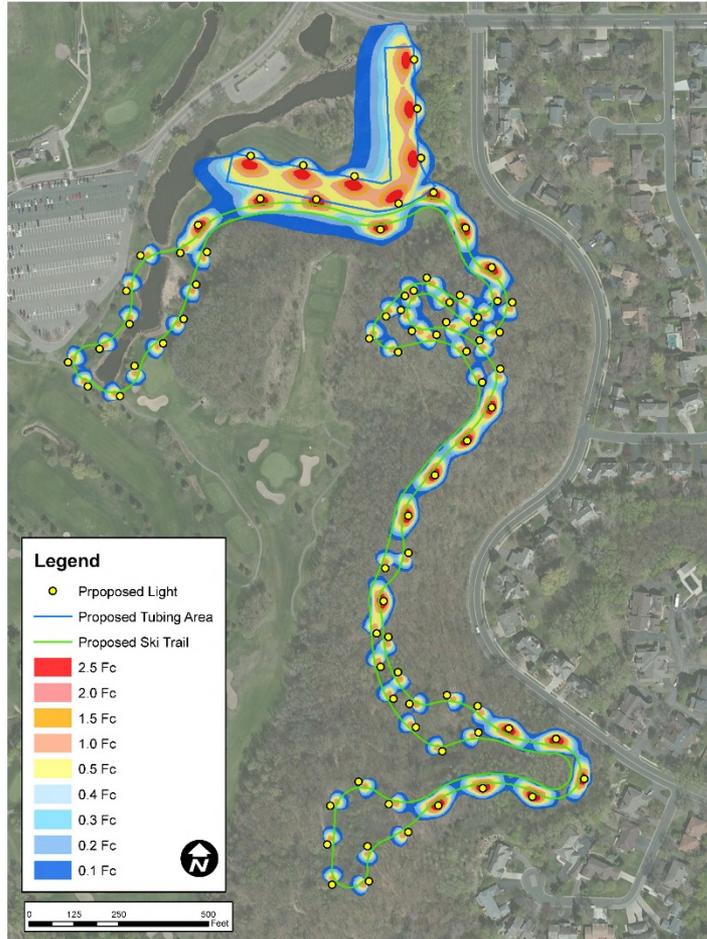
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# Impact – Light – Machine-made Snow Areas Only



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# Impact – Light – Machine-made Snow Areas Only



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Shoebox LED Light –  
XC Skiing & Tubing



Directional LED Light – XC  
Skiing Only

# Impact - Traffic

- Existing 475 space parking lot
- Existing Golf Use – 700 vehicles per day
- Anticipated Non-Golf Use – 300 vehicles per day
- Surrounding road network remains adequate



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# Impact – Opinion of Probable Cost



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Item	Opinion of Cost
Opinion of Total Project Cost – Construct XC Skiing and Tubing	\$2,900,000

# Why Open During 2017?



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- use likely golf course construction access – black line & blue arrows.....
- to access winter recreation project at multiple points –yellow arrows.....
- to avoid access to winter recreation project from Gleason Road - red arrows

# Why Open During 2017?



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- Concurrent construction with golf course – easier to make adjustments at border between projects
- Avoid impacts to north edge of proposed golf hole No. 10 – pump house / pipe installation
- Use steel pipe & copper / aluminum electrical cable – volatile costs
- Access winter recreation project thru golf course project - restore access with golf course project



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## Thank You

- Ann Kattreh | City of Edina | Parks & Recreation Director | 952.826.0430 | [AKattreh@EdinaMN.gov](mailto:AKattreh@EdinaMN.gov)
- Mike Horn | SEH | Project Manager | 612-255-4030 | [mhorn@sehinc.com](mailto:mhorn@sehinc.com)



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# Introduction

- Golf Operation Study 2013 – 2014  
    Goal – 100% Cost Recovery
- Clubhouse Interior and Exterior Renovations and Tin Fish
- Driving Range & Academy 9
- Multi-Use Winter Trail Grooming – 2013
- Regulation Course Renovation - 2017 - 2018

# Braemar Master Plan



## The CITY of EDINA



~CARD OF THE COURSE~

HOLES	PAR	A	B	C	D	E
1	4	370	387	321	286	242
2	4	405	377	337	313	262
3	5	344	331	344	332	312
4	5	381	368	374	409	345
5	3	377	362	334	337	319
6	5	320	409	400	440	338
7	5	399	381	379	357	338
8	5	315	400	406	396	347
9	4	405	376	362	338	321
<b>OCT</b>	<b>36</b>	<b>3,274</b>	<b>3,070</b>	<b>3,396</b>	<b>3,444</b>	<b>3,094</b>
10	4	373	360	333	292	244
11	5	388	354	326	312	305
12	4	475	409	392	366	307
13	3	284	194	186	133	137
14	4	439	412	391	340	286
15	4	420	394	375	326	273
16	5	374	366	404	479	366
17	5	337	330	333	323	301
18	4	337	411	366	386	284
<b>TOTAL</b>	<b>36</b>	<b>3,467</b>	<b>3,448</b>	<b>3,396</b>	<b>3,483</b>	<b>3,043</b>

LEGEND

GREEN	OAK SAVANNA	CREATED/RESTORED/ENHANCED WETLAND MITIGATION 4.06 AC
FAIRWAY / ROUGH	POND	WETLAND BUFFER 32.11 AC (20.11 REQUIRED)
TEE	CLUBHOUSE	BOCCIE BALL COURTS (6)
SAND BUNKER	BUILDING	CROSS COUNTRY SKI TRAIL 5.3 MILES
CART PATH	EXISTING TRAIL	
EXISTING TREE	NEW TRAILS 1.02 MILES	



# Snow Tubing & XC Skiing - Preliminary Market Analysis/ Financial Model



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## Short Season: 70 Days

SUMMARY - SHORT SEASON	2017/18	2018/19	2019/20	2020/21	2021/22
Nordic Revenue	\$50,438	\$54,073	\$58,602	\$62,597	\$64,035
Tubing Revenue	\$69,240	\$72,031	\$74,802	\$77,550	\$80,272
Total Revenue	\$119,678	\$126,104	\$133,403	\$140,147	\$144,306
Operating Expenses	\$119,430	\$121,819	\$124,864	\$127,362	\$130,546
Operating Cash Flow	\$247	\$4,284	\$8,539	\$12,785	\$13,761
Operating Margin	0.2%	3.4%	6.4%	9.1%	9.5%
Depreciation	\$18,576	\$18,948	\$18,948	\$19,326	\$19,326
Net Cash Flow	-\$18,329	-\$14,663	-\$10,409	-\$6,541	-\$5,566
Net Cash Flow Margin	-15.3%	-11.6%	-7.8%	-4.7%	-3.9%

# Snow Tubing & XC Skiing - Preliminary Market Analysis/ Financial Model



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## Long Season: 84 Days

SUMMARY - LONG SEASON	2017/18	2018/19	2019/20	2020/21	2021/22
Nordic Revenue	\$57,495	\$61,386	\$66,331	\$70,616	\$72,356
Tubing Revenue	\$81,480	\$84,801	\$88,099	\$91,372	\$94,616
Total Revenue	\$138,975	\$146,187	\$154,430	\$161,988	\$166,972
Operating Expenses	\$134,359	\$137,046	\$140,473	\$143,282	\$146,864
Operating Cash Flow	\$4,616	\$9,141	\$13,958	\$18,706	\$20,108
Operating Margin	3.3%	6.3%	9.0%	11.5%	12.0%
Depreciation	\$18,576	\$18,948	\$18,948	\$19,326	\$19,326
Net Cash Flow	-\$13,960	-\$9,807	-\$4,990	-\$620	\$782
Net Cash Flow Margin	-10.0%	-6.7%	-3.2%	-0.4%	0.5%

# Only XC Skiing - Preliminary Market Analysis/ Financial Model



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## Short Season: 70 Days

SUMMARY - SHORT SEASON					
NORDIC ONLY	2017/18	2018/19	2019/20	2020/21	2021/22
Nordic Revenue	\$50,438	\$54,073	\$58,602	\$62,597	\$64,035
Total Revenue	\$50,438	\$54,073	\$58,602	\$62,597	\$64,035
Operating Expenses	\$60,947	\$62,166	\$63,720	\$64,995	\$66,620
Operating Cash Flow	-\$10,510	-\$8,094	-\$5,119	-\$2,398	-\$2,585
Operating Margin	-8.8%	-6.4%	-3.8%	-1.7%	-1.8%
Depreciation	\$13,932	\$14,211	\$14,211	\$14,495	\$14,495
Net Cash Flow	-\$24,442	-\$22,304	-\$19,330	-\$16,893	-\$17,080
Net Cash Flow Margin	-48.5%	-41.2%	-33.0%	-27.0%	-26.7%

# Only XC Skiing - Preliminary Market Analysis/ Financial Model



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## Long Season: 84 Days

SUMMARY - LONG SEASON					
NORDIC ONLY	2017/18	2018/19	2019/20	2020/21	2021/22
Nordic Revenue	\$57,495	\$61,386	\$66,331	\$70,616	\$72,356
Total Revenue	\$57,495	\$61,386	\$66,331	\$70,616	\$72,356
Operating Expenses	\$66,400	\$67,728	\$69,422	\$70,810	\$72,580
Operating Cash Flow	-\$8,905	-\$6,342	-\$3,091	-\$194	-\$224
Operating Margin	-6.4%	-4.3%	-2.0%	-0.1%	-0.1%
Depreciation	\$13,932	\$14,211	\$14,211	\$14,495	\$14,495
Net Cash Flow	-\$22,837	-\$20,553	-\$17,301	-\$14,689	-\$14,719
Net Cash Flow Margin	-39.7%	-33.5%	-26.1%	-20.8%	-20.3%

# Beginner – 0.8 km



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5% Slope



8% Slope



10% Slope





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## Intermediate – 1.45 km



13% Slope - Straight



13% Slope - Curved

# Expert – 0.75 km



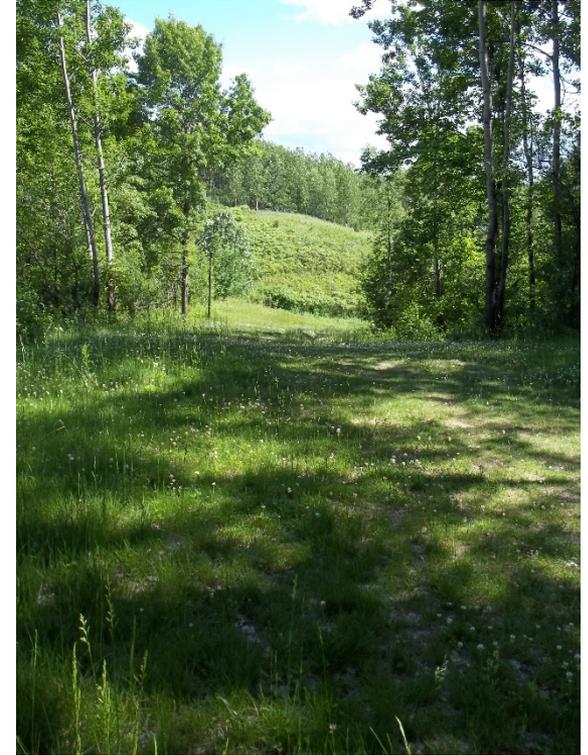
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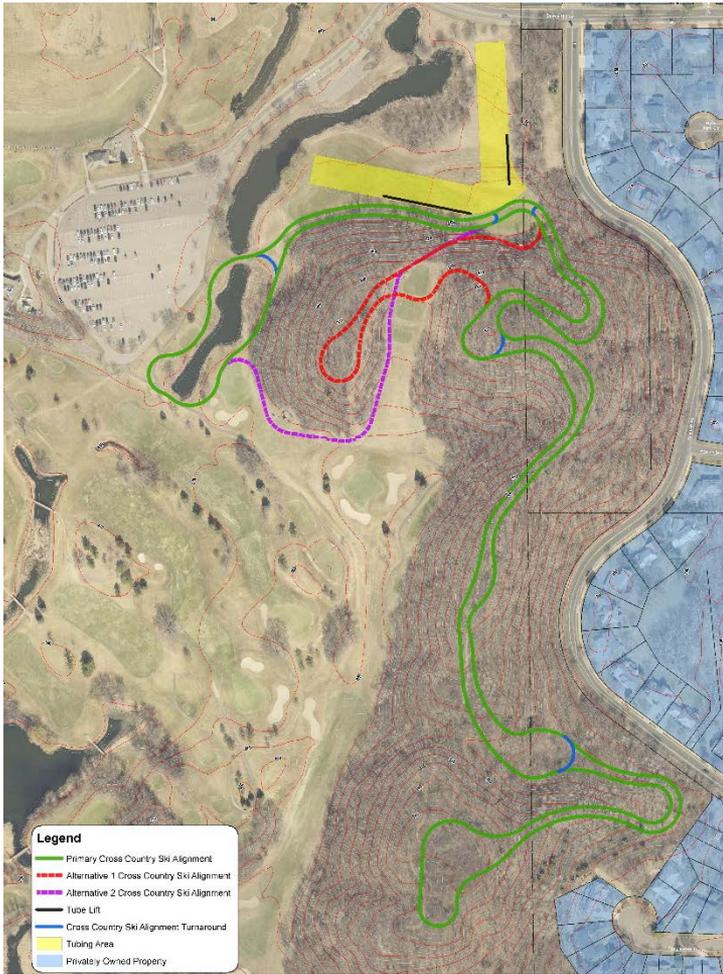
15% Slope



17% Slope



17% Slope



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# Cross – Country Ski Trail Sections – Benched Trails



# Recreation Area Impact – Tree Damage



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# Why so Expensive to Construct?



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# Why so Expensive to Construct?



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# Why so Expensive to Construct?



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# Impact - Traffic



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Season	Uses	User visits per day <sup>(1,2)</sup>	Estimated vehicle trips per day <sup>(3,4)</sup>
Summer (Existing)	Golf Courses	450 rounds	409
	Driving Range	225 patrons	205
	Tin Fish	75 diners	68
<b>Totals</b>			682
Winter (Proposed)	Nordic Skiing <sup>(5)</sup>	50 skiers	45
	Snow-tubing <sup>(6)</sup>	230 tubers	209
	Tin Fish	75 diners	68
<b>Totals</b>			322

# Opinion of Probable Cost



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<b>Base Cost</b>	Ski Trail and Tubing w/ Snowmaking and Lighting	\$2,100,000
	15% Contingency	\$315,000
	Indirect Costs (21% of Total Construction Costs)	\$505,000
	<b>Subtotal Project Cost</b>	<b>\$2,920,000</b>
<b>Additional Cost</b>	Increase in Vertical Drop on Tubing Hill	\$195,000
	15% Contingency	\$30,000
	Indirect Costs (21% of Total Construction Costs)	\$47,000
	Subtotal Increased Vertical Drop	\$272,000
<b>Total Estimated Project Cost</b>		<b>\$3,192,000</b>



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# Project Timing

- Golf Course Construction in 2017 concurrent with Snowmaking/Trail Construction
  - Utilize overlapping construction access to site without future impact to new course.
  - Primary access for both projects from parking lot.
  - **Blue arrows** = Golf Course construction Access
  - **Orange arrows** = Snowmaking/Trail construction Access
  - **Red dashed arrows** = later year Snowmaking/Trail construction access
-



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# Pro Forma and Budgeting

- Long and short seasons are operationally cash flow positive
  - RRC Pro Forma Utilizes 40% of staffing from Braemar
    - **\$50,000 in operational support from golf enterprise**
  - Enterprise Fund vs. General Fund vs. Hybrid
    - Outdoor Rinks (General Fund) vs. Braemar Arena (Enterprise)
    - Aquatic Center & Edinborough
    - Braemar Arena & Braemar Field
  - Not expected or able to repay construction debt
-