

MEMORIAL ARENA PARK

LISTOWEL, ON.

MASTER PLAN REPORT

FEBUARY 2021



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PROJECT SUMMARY

PROJECT SUMMARY

In November 2020, SHIFT was engaged through a public RFP to provide consulting services for the park development of 380 Maitland Avenue in Listowel, ON at the Listowel Memorial Arena site. The general scope of the project was to develop a design for the park with visual renderings, a construction plan, including timelines and cost, and a maintenance guide to ensure the prolonged success of the design.

Memorial Arena Park will take the place of the Listowel Memorial Arena that was demolished in early 2021. The Memorial Arena was built in place of a former arena structure that collapsed on February 28, 1959, while a boys' hockey team was playing a scrimmage game. Eight lives were lost in the tragedy, including seven young players along with the referee/recreation director. The intent is for the site to become a park space that preserves the memory of the lives lost and affected by the collapse, while also acting as a recreational space that can serve the community into the future.

Throughout the project SHIFT worked closely with municipal staff and engaged with Friends of '59 and the Recreation Advisory Committee (RAC). Faced with unusual circumstances due to COVID-19, approaches to public consultation were adapted to suit virtual engagement to ensure community members had a fair opportunity to share their input.



SITE ANALYSIS

Memorial Arena Park will be an extension of the established Listowel Memorial Park that exists to the north-west of the project site. The gateway from Memorial Arena Park to the rest of the Listowel Memorial Park is around the John Bell baseball diamond section of the park, although no clear path currently exists between the two areas. The open view to the adjacent John Bell baseball diamond presents the opportunity to utilize the western edge of the park as a spectator's area.

The site of Memorial Arena Park has houses to the north, east and south. A mature vegetative screen exists on the southern edge and could be retained in the proposed park design to continue to separate the current parking lot and neighbouring properties.

The two roads bordering the site, Maitland Ave. N and Palace St. E, present a unique street edge condition; the crescent would first appear as a quiet access driveway that would have served the arena, however, the roads are defined as municipal. The curling club is located to the north and requires that parking is incorporated into the southwest of the design. The Royal Canadian Legion Branch 259 is located kitty-corner to the park which hosts the local farmer's market.

The site exists as an open lot from the recent demolition of the arena. The current site condition has a slight elevation change from the north-east corner sloping down to the west. Overall, the observable existing conditions of Memorial Arena Park do not present any issues detrimental to the park's development.





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PRELIMINARY CONCEPTS

PRELIMINARY CONCEPTS

Section 3: Preliminary Concepts showcases the two preliminary concepts that were developed in preparation for the first public consultation outreach that occurred on December 22nd, 2020 through to January 18th, 2021. The first two weeks of the survey was for Friends of '59, the Recreation Advisory Committee (RAC) and Municipality of North Perth Mayor, Council and other internal stakeholders to respond, before releasing the survey to the general public. The two concepts were designed to contrast one another to generate insightful feedback about the likes and dislikes of the future park users. The concepts were presented with supporting imagery, including precedent images and photos of physical models that were created of the concepts.

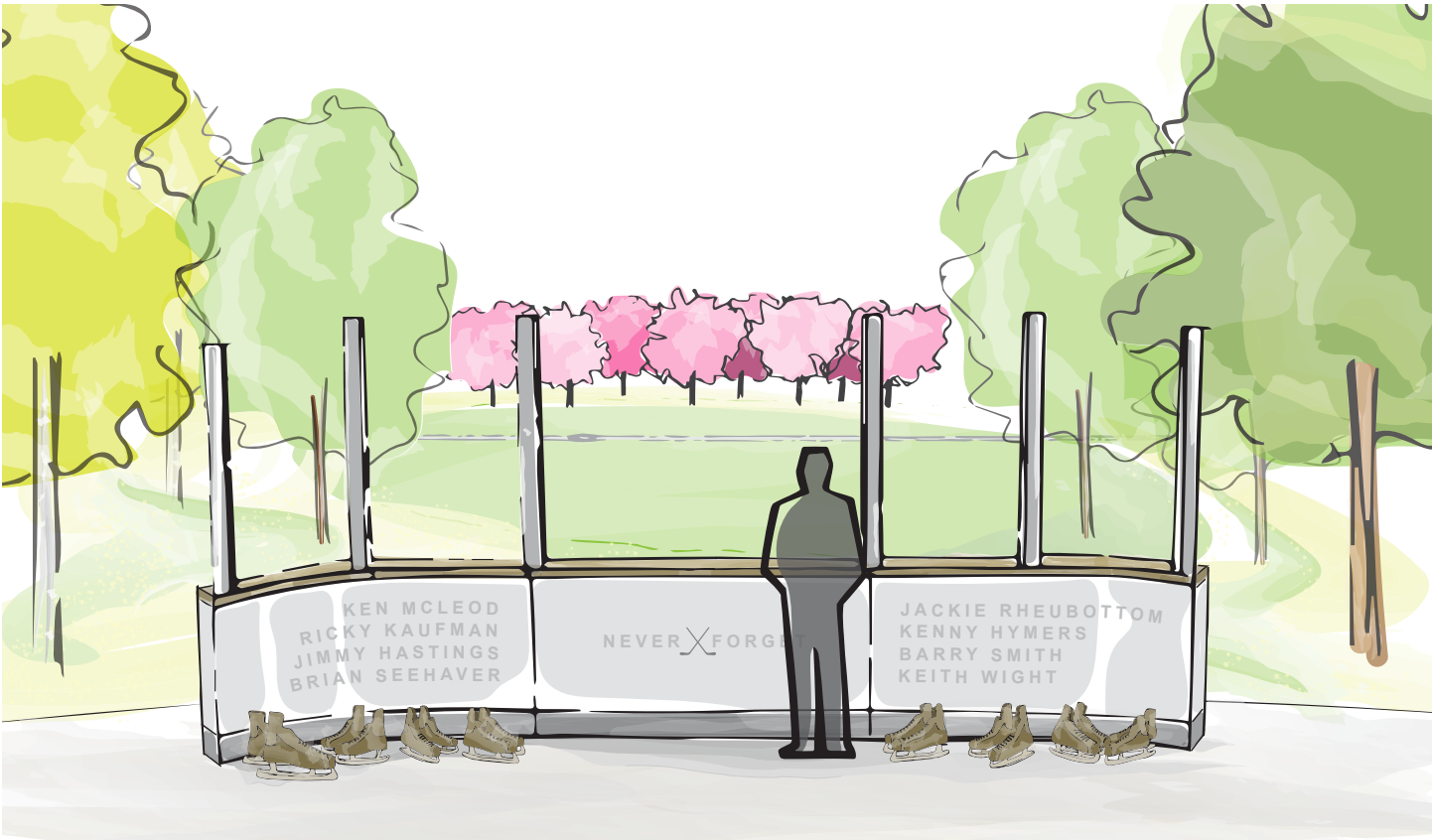
CONCEPT 1

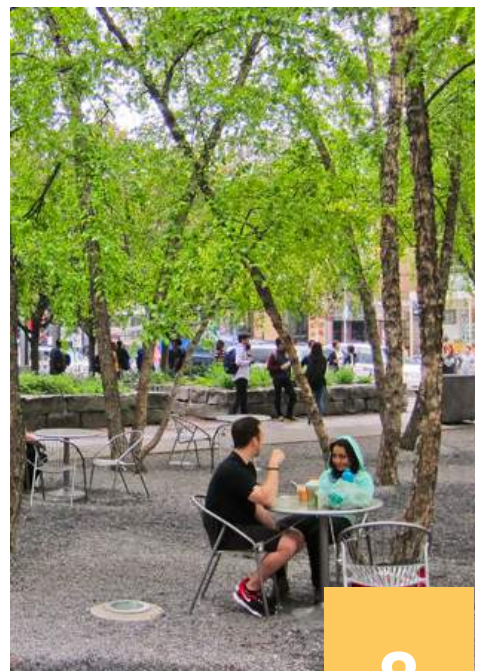
Concept 1 has one main circulation path that encompasses widespread meadows and tree bosques on the interior while reaching to multiple entry points at the street edge. The western edge acts as open entry plaza that could support community events such as markets, while also providing a space for spectators to sit and gather during baseball games happening in the adjacent field. The Memorial Space is a distinctive tree-lined area that houses a custom memorial feature of eight pairs of bronze hockey skates leaning against sculptural boards. The Memorial Space is organized on a view axis overlooking a large oval-shaped open lawn that has a location marker of the previous centre ice and eight flowering memorial trees at the terminus of the axis. The open lawn can be flooded in the winter to create an ice rink that is protected from winter winds by the border of trees. Other park elements include a Contemplative Grove intended to be quiet space for self-reflection and a Sensory Play area for children to participate in imaginative and explorative play. In this concept, the previous Listowel Memorial Arena is being signified by sculptural posts standing in the exact corner locations of the building. The form of Concept 1 has an intuitive sense of flow with its circulation path carved out from the meadow landscape and dispersal of elements in the void pockets of the path.



CONCEPT 1 - PLAN







CONCEPT 2

The design of Concept 2 uses the location of historic centre ice as an anchor to organize distinctive spaces and a hierarchy of path systems. The Memorial Garden and Survivor's Grove exist in reflection to each other, in alignment with 'centre ice'. Both of the areas are enclosed by a low curvature berm with the intention of creating two experiential environments to spend time individually or in small groups. The Memorial Garden features a memorial piece of eight sculptural hockey sticks standing within a display garden in the centre of the space. The berm becomes a feature of the space with flowering memorial trees planted on top, a garden bed running along the bottom, and an integrated fieldstone wall. In the Survivor's Grove, several trees and a berm sloped for seating enclose a harvest table to create an intimate space for community members to come together. Working with the system of memorial spaces, the Contemplative Grove would provide a space fitting for meditation, reading, or any self-reflection time. A pathway runs through the Contemplative Grove and continues into the Sensory Play area that is set within a meadow. Differing from the previous concept, the Sensory Play elements are extensions of the pathway, following a linear condition. In this concept, the corners of the previous Listowel Memorial Arena are marked with a variation of pathway inlays and short posts. Lastly, a small entry plaza off of Maitland Ave. divides an open lawn into two sections. During the winter season, the two lawn spaces present the opportunity for separate ice rinks that could be designated to certain age groups or activities. These ice rinks are intended to be flooded and shoveled clear by the users.



CONCEPT 2 - PLAN

CURLING CLUB

JOHN BELL BASEBALL DIAMOND



STREET PARKING

HISTORIC ARENA MARKER (X4)

PLAZA

OPEN LAWN / WINTER ICE

SENSORY PLAY

CENTRE ICE MARKER

CONTEMPLATIVE GROVE

HOCKEY STICK SCULPTURE

FIELDSTONE WALL

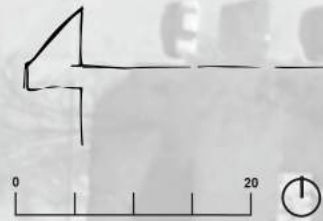
MEMORIAL GARDEN

MEMORIAL TREES

RESIDENTIAL

PARKING LOT

ROYAL CANADIAN LEGION



RESIDENTIAL





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PUBLIC ENGAGEMENT SUMMARY

KICK-OFF MEETING

A kick-off meeting was held in-person in November 2020 with municipal staff, Friends of '59 and the Recreation Advisory Committee (RAC). The objective of the meeting was to establish relationships that would be valuable throughout the life of the project and to gain an understanding of current ideas and opinions. SHIFT used this meeting as an opportunity to listen to the ideas and inputs from community members who have a vested interest in the site. The information gathered from the meeting was used to begin developing informed concepts.



DESIGN OPTIONS SURVEY

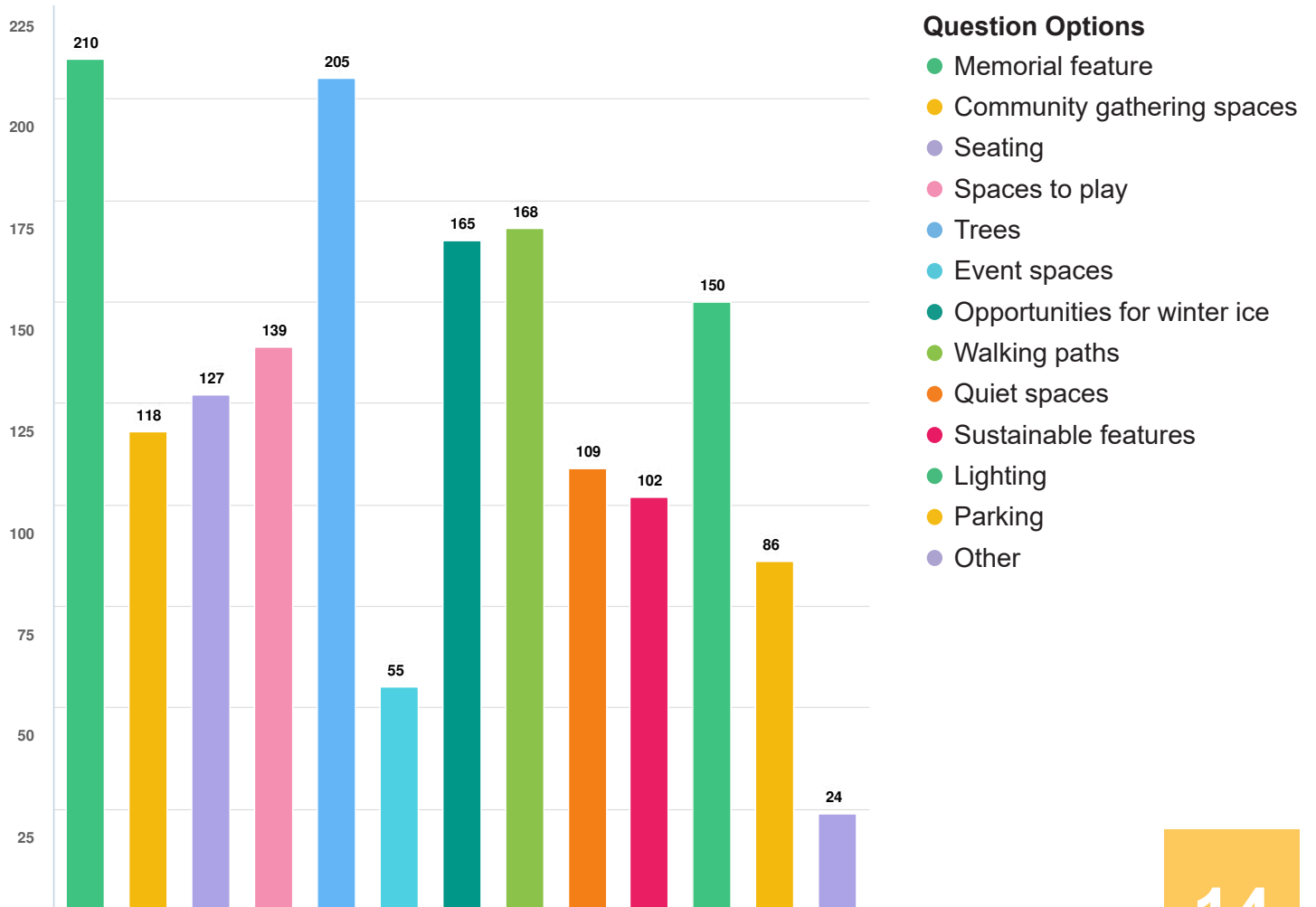
Following the kick-off meeting in November 2020 with Friends of '59 and the Recreation Advisory Committee (RAC), SHIFT and the Municipality of North Perth developed two preliminary design options for Memorial Arena Park. A pre-recorded presentation and supporting document describing the concepts were developed in preparation for online public engagement. On December 22nd 2020, the two preliminary concepts were shared with the Friends of '59, RAC, and North Perth Council. The first two weeks of the survey was for Friends of '59, RAC, and the Municipality of North Perth Mayor, Council and other internal stakeholders to respond, before releasing the survey to the general public. Members of the general public were given two weeks to respond to the online survey, making the entire life of the engagement a four week period. In addition to the survey, an online "Ideas Board" and "Community Forum" were available for participants to publicly share thoughts and engage in open discussions.

The volume of feedback was outstanding with 245 responses from the community, along with 12 posts on the "Ideas Board". Overall, the majority of responses expressed approval and great enthusiasm for the proposed designs. In the survey, participants were first asked to select the most important park elements they felt should be included in the new park, as displayed in Figure 1. It is clear that the inclusion of a memorial feature is most important to the community, with the support of 210 survey participants. As well, community members felt an abundance of trees, walking paths, opportunities for winter ice, and adequate lighting were important components to include in the park design.

Figure 1

What do you think are the most important elements to include in the future park space?

*Question allowed participants to select multiple answers



The results of the survey presented a stronger preference for Concept 1, receiving the support of 132 people, as shown in Figure 2. Many explained that their preference for Concept 1 was based on their liking of the open concept and flow of the design. Other desirable features included the large open lawn/ winter ice, vertical posts marking the corners of the Listowel Memorial Arena, the area for watching baseball games, and a space to hold small community events and markets.

The memorial feature of Concept 1 captivated the most response out of all presented elements and was favoured over the memorial feature in Concept 2. It was clear from the numerous responses received that the memorial involving the eight pairs of bronze hockey skates and sculptural boards was a monument that the community could connect with and that would pay tribute to the tragedy in 1959. In addition, participants appreciated the organization of the memorial feature overlooking the marker of 'centre ice' and the eight flowering memorial trees. There were a few elements in Concept 2 that were strongly admired which participants felt should be integrated into the final design. These elements included more walking paths, a harvest table and a Survivor's Grove.

In the survey, participants were asked to share their feelings on the idea of a sensory playground. The poll results showed that 86.1% of participants were in support of a sensory playground being included in the final design of the park, as shown in Figure 3. When given the opportunity to share a written response, many people described that a sensory playground would be of benefit to children's development while being a suitable addition to the landscape.

The survey responses demonstrated the multi-generational make up of the community. It was made clear that the park should be designed suitable for all ages, emphasizing the importance of both passive areas and spaces for play. On several occasions, it was mentioned that the main paved surfaces such as asphalt or concrete were preferred over limestone screenings for accessibility for the many senior citizens that would visit the park.

The desire for a dog park was voiced by some participants. After consultation with the recreation department, they discussed that there are other park locations which may be better suited for this type of use. Understanding the public's expressed desire for a dog park, Staff plan to bring this topic back to council for further discussion.

Overall the number of participants demonstrated exceptional engagement from the community. The circumstances caused by COVID-19 did not appear to have any negative impacts on the number of participants. The valuable information that was gathered will be used to influence the final design.

Figure 2

Which concept do you prefer?

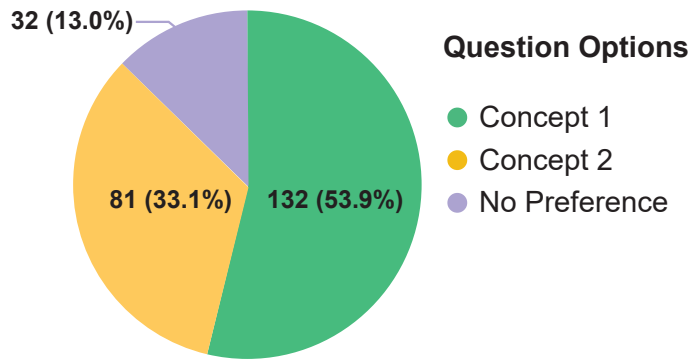


Figure 3

Do you think a sensory playground is a good option for this space?

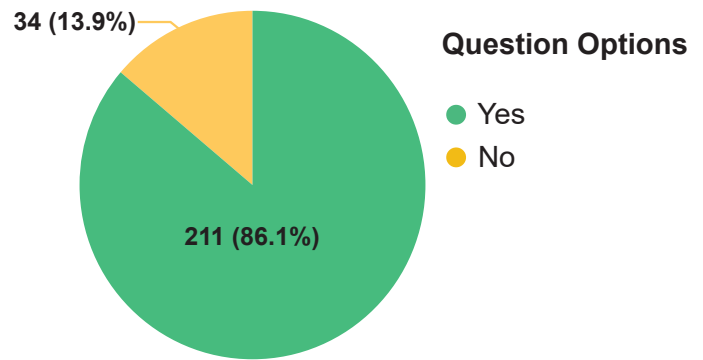
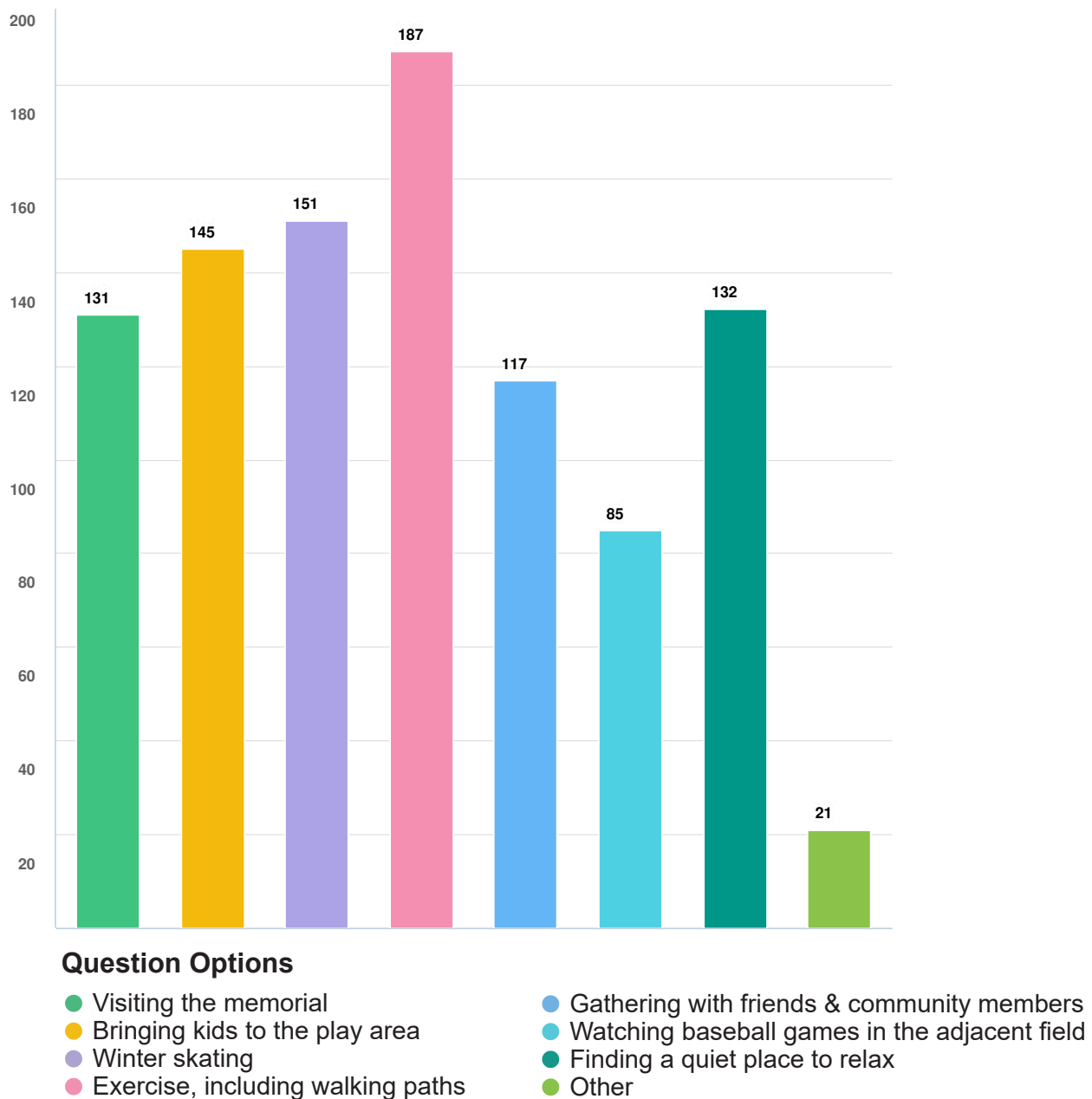


Figure 4

How do you see yourself using the park?

*Question allowed participants to select multiple answers



“What a great balance of preserving the past and looking towards the future.”

“I would just really like to see the least amount of grass as possible with the most amount of productive ecological plantings. It is such an amazing opportunity to give a little bit back to the rich native ecology of the area. Native plants for all vegetation is really a must. Nice work so far!”

“As a board member with the curling club I appreciate that our parking concerns were accounted for in both designs.”

“As an RECE, I believe natural play is a very important step in children’s learning and it is something we are focusing on moving towards in the early childhood field. Having a sensory playground in the community will show the growth that our community believes in, encouraging children to be who they are and to explore what is around them outside of media and technology.”

“Thanks - You have put a lot of thought and effort into these design concepts that balance the need for an appropriate memorial, recreation and green space, and parking areas, too.”

“I grew up a few doors down from the arena and my Mom did as well so knowing something beautiful will be put there instead of just a parking lot makes me a proud resident.”

“We need to remember that we are wide age group of people and not everyone can stand or get to ground for sitting.”

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FINAL CONCEPT

The master plan for Memorial Arena Park, as illustrated on the following page, was developed in consultation with the community. The final concept has an enhanced circulation system that was designed to satisfy the community's strong desire for multiple walking paths. The form maintains a main circulation path that reaches each corner of the site, establishing four entry points into the park. Additional walking paths were incorporated to provide alternative routes for leisurely strolls.

The final concept includes a sensory play area placed on the interior of walking paths. It is intended for the secondary path to be an extension of sensory play materials, such as flagstone, limestone screenings, or other materials which may enhance the idea of sensory experience. The sensory play area character and materials are to be determined during detailed design. A Survivor's Grove sits across from the sensory play area with a view to the open lawn. The Survivor's Grove has seating, including a harvest table, underneath tree canopies providing a serene space for individuals or intimate groups.

The memorial feature of the sculptural boards and hockey skates presented in Preliminary Concept 1 is included in the final concept as a result of the abundant support expressed by the majority of community members in the Design Options Survey. The memorial is designed as a conceptual system that places the memorial feature, Listowel Memorial Arena centre ice marker, and eight flowering memorial trees on a view axis for a dynamic experience.

The park concept further develops character through thoughtful planting design that establishes sustainability and beauty. The walking paths are carved out of a meadow landscape and move through a progression of trees. Moments of shade will be dispersed throughout the park, due to high-canopy trees casting shade on the seating berms, Survivor's Grove and memorial space. Trees line the oval-shaped lawn to mimic a forest edge and create a sense of enclosure around the open space. Within the tree border, eight flowering memorial trees are featured on a low seating berm to stand out amongst the rest. The existing vegetative screen along the south edge will remain and become densified with additional trees to separate the park from the neighbouring residential properties. Two rain gardens are located around the natural low point of the site, specifically the northern edge of the memorial space, to capture potential water runoff. Purposeful use of vegetation will influence peoples' quality of experience through the park.

The western border of the park is a long open edge along Maitland Ave. that incorporates a plaza space that can hold small community events such as markets. The paved space is bordered by seating berms that face the adjacent baseball fields for spectators to watch games or simply rest. The design of the wide open edge is intended to be an opportunity area for socialization.

The final concept offers a generous amount of parking, including a double-row parking lot towards the south end with +/-26 stalls and street parking of +/-23 stalls along Palace St. The Listowel Curling Club is supported by both the street parking directly across from the facility and the direct pathway connection to the parking lot.

CURLING CLUB

RESIDENTIAL

RESIDENTIAL

JOHN BELL BASEBALL DIAMOND

PALACE ST. E

STREET PARKING

RAIN GARDEN

SEATING BERM

MEMORIAL SPACE

SEATING BERM

MATLAND AVE. N

COMMUNITY EVENT / MARKET SPACE

MEADOW

PARKING LOT

ROYAL CANADIAN LEGION

LISTOWEL MEMORIAL ARENA MARKERS

CENTRE ICE MARKER

MEMORIAL TREES

SEATING BERM

OPEN LAWN / WINTER ICE

RESIDENTIAL

HARVEST TABLE

SURVIVOR'S GROVE

SENSORY PLAY



RESIDENTIAL



VIEW OF ENTRY ALONG MAITLAND AVE.



VIEW OF SENSORY PLAY AND SURVIVOR'S GROVE



KEN MCLEOD
RICKY KAUFMAN
JIMMY HASTINGS
BRIAN SEEHAVER

NEVER FORGET

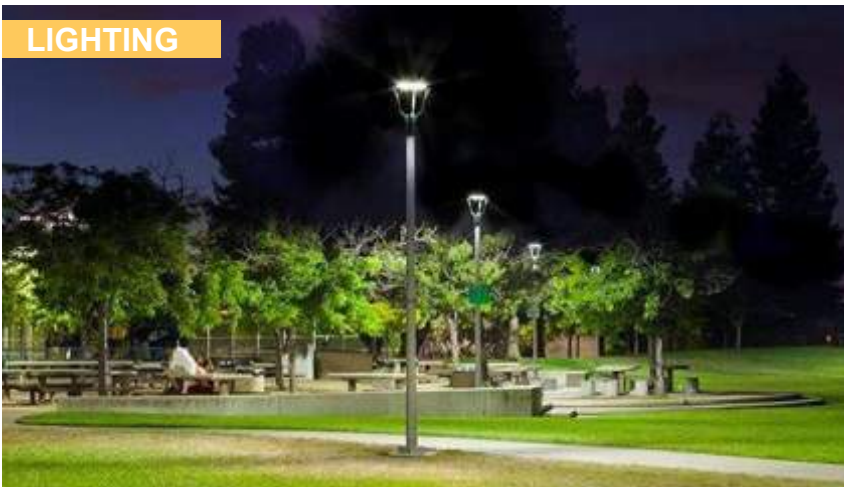
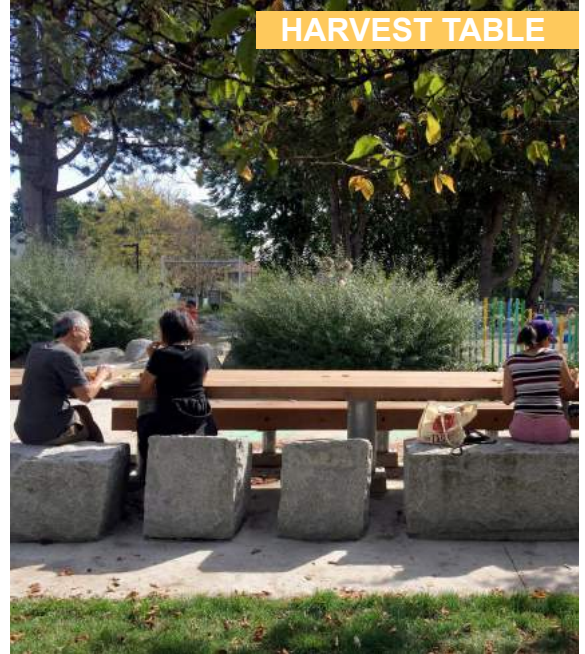
JACKIE RHEUBOTTOM
KENNY HYMERS
BARRY SMITH
KEITH WIGHT

VIEW OF MEMORIAL LOOKING OUT TO MEMORIAL TREES

6

EXAMPLES OF CONCEPT IDEAS

PARK FEATURES



PLANTING DESIGN



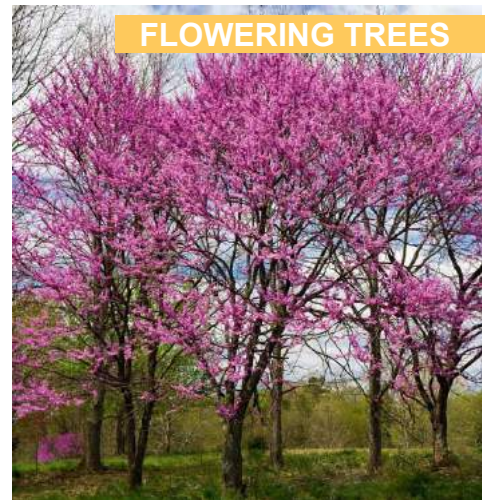
MEADOW LANDSCAPE



GRASS SEATING BERM



TREE GROVE



FLOWERING TREES



TREE BORDER



LAWN EDGE



RAIN GARDEN

POSSIBLE PARK ACTIVITIES

COMMUNITY SKATING



FOOD TRUCKS ON MAITLAND AVE.



COMMUNITY VENDOR MARKETS



MOVIES IN THE PARK



COMMUNITY FESTIVALS



7

CONCEPTUAL LIGHTING PLAN



 = POTENTIAL LIGHT LOCATION

*EXACT LOCATIONS WILL BE DETERMINED DURING DETAILED DESIGN.

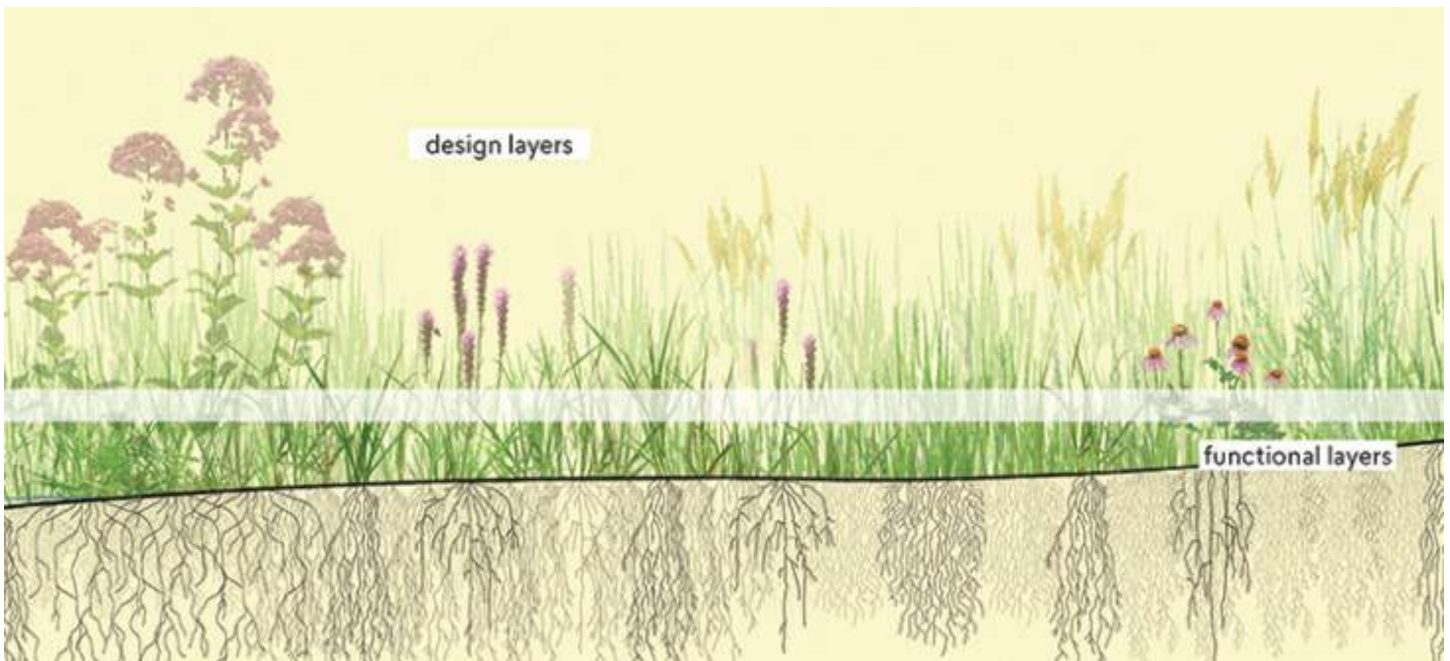
8

SITE MAINTENANCE GUIDE

Maintenance on a designed plant community should have two overall goals: preserving the legibility of the design and making sure the planting still functions in the way it was intended. There are two developmental stages identified for planting with different monitoring criteria. These stages include the **plant establishment phase** and the **landscape establishment phase**.

The **plant establishment phase** occurs just as planting has finished and lasts until all plants are rooted into the surrounding soil and are able to support themselves. In this phase, the management team should focus on:

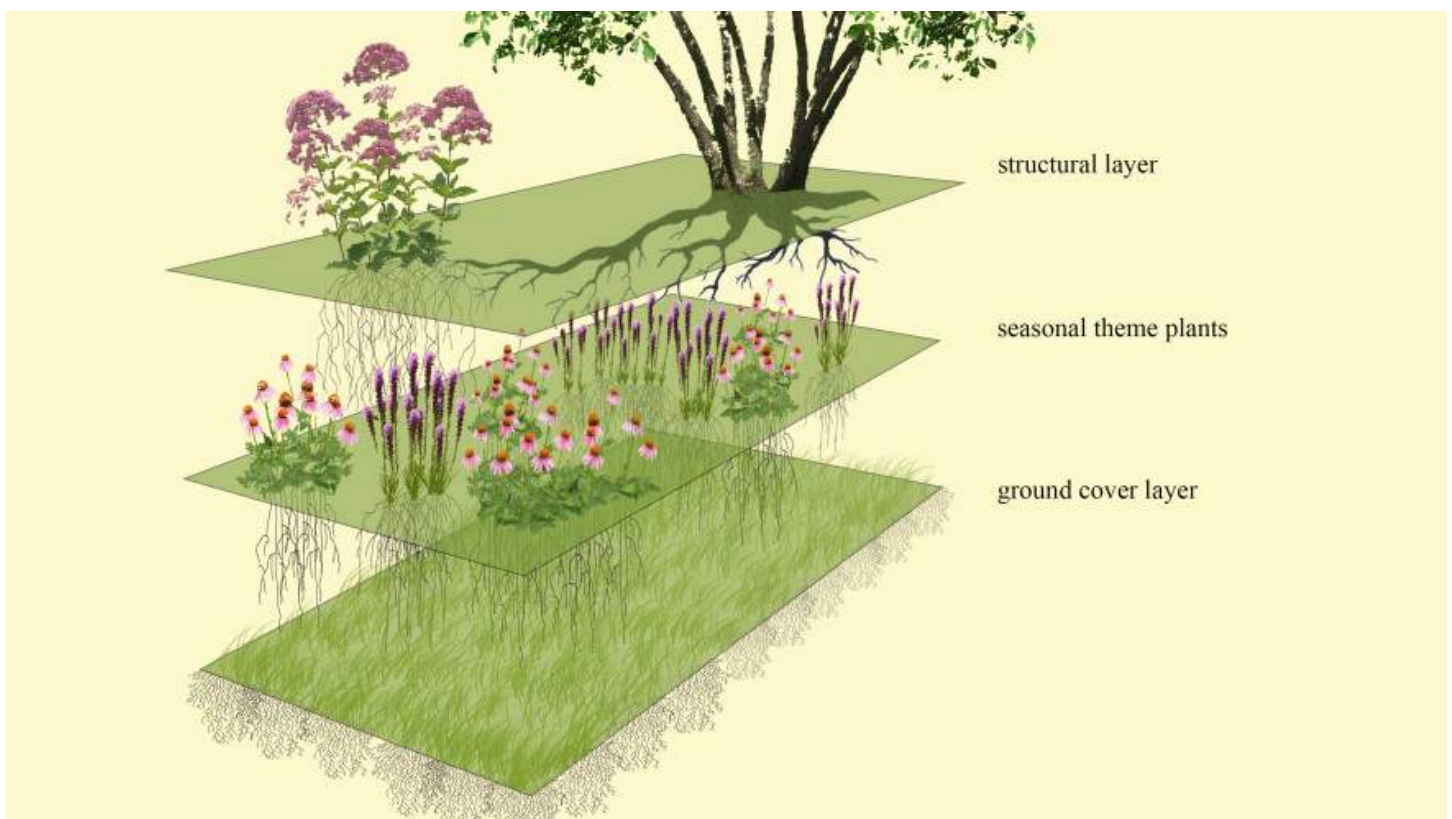
- 1** Providing periodic watering in times of drought and mulching the bare soil. These practices are beneficial to the designed plant community until all plants are established and these practices are no longer required. Coarse wood chips should be applied and their decomposition will add to the microbial life of the soil.
- 2** Weed management until the groundcover layer has established. Weeding can often disturb soil and leave bare ground visible which goes against the principles of a designed plant community. Care should be made to carefully replace the soil and cover it with mulch until the groundcover layer is established.
- 3** Selective cutting of plants. It is often beneficial to cut a plant back in its early life as more energy the plant produces is then channeled into developing a strong crown and root system.



Source: Rainer, Thomas, and Claudia West. *Planting in a Post-Wild World: Designing Plant Communities for Resilient Landscapes*. Timber Press, 2016.

The **landscape establishment phase** starts once plants are established. As the plants grow, the designed community's layers and design are revealed as shown in the image below. At this stage, the management team should focus on:

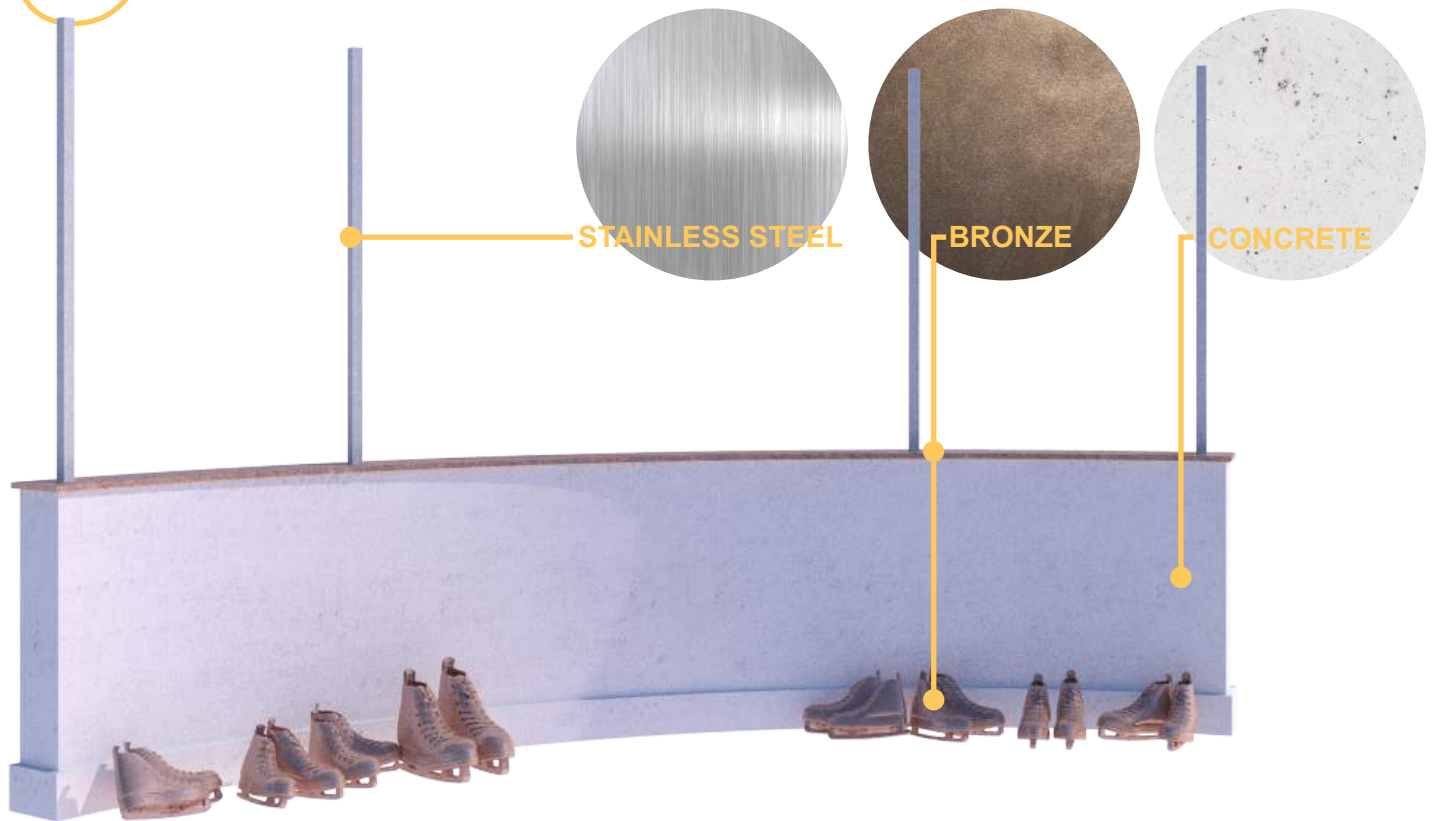
- 1** Keep orderly frames neat and clean. Well-tended frames (edge of planting beds) should be free of trash and other debris. Groundcover edges should be trimmed annually to the edge of the garden.
- 2** Preserve the legibility of the structural layer. The planting design will include structural themed plants, which form the visual structure of the planting through upright ornamental grasses and perennials. The height of these plants creates visible patterns, frames views and defines the space and management should focus on preserving the design as intended. Replace lost species with the original plants or another structural plant that serves the same purpose. Replacement location should be guided by the original design. These plants should be cut back annually.
- 3** Keep soil densely covered with plants. The planting design will include a groundcover layer, which prevents soil erosion and provides a nectar source. Management of this layer must identify any gaps in the ground layer and replacement of those plants as required preventing undesirable plants and weeds from taking over the designed community. Filling open gaps within the groundcover layer to prevent weeds requires the least resources in the long run. Leaf litter in the garden beds should be allowed to accumulate to allow decomposition of organic matter to enhance the microbial life of the soil.



Source: Rainer, Thomas, and Claudia West. *Planting in a Post-Wild World: Designing Plant Communities for Resilient Landscapes*. Timber Press, 2016.

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MEMORIAL FEATURE MAINTENANCE GUIDE



MAINTENANCE GUIDE

Given the important nature and prominence of the memorial, it should be inspected regularly for vandalism and/or other issues. Simple and effective cleaning procedures are detailed below.

To clean bronze:

1. Use soap and water
 - > Add just enough soap to a bucket of water to form bubbles on top of the water
 - > Opt for a mild soap that is unscented and free of additives
2. Use gentle tools
 - > Dampen a clean rag in the soapy water to wipe down the bronze
 - > Use a soft toothbrush to clean the nooks and crannies of the sculptural skates
3. Rinse the bronze with clean water
 - > Be sure to wash away all soap to avoid residue
4. Allow bronze to dry completely
 - > Bronze will typically dry in a couple of hours
5. Annually apply wax coating
 - > Use plain, clear, paste wax
 - > To apply, use a soft rag or an unused paintbrush to get into nooks and crannies
 - > Apply a light coat and allow to dry - most waxes dry within 20 minutes
 - > Once dry, buff the sculpture using a soft cloth or clean shoe brush
 - > Apply a second coat
 - > Waxing works best in the heat of the day for the wax to seep into the pores of the sculpture

Precautions for bronze:

1. Do not use commercial cleaning products
2. Do not use graffiti-removal products
3. Do not use solvents to remove graffiti if a clear coating such as Incralac is known to exist on the bronze/copper sculpture
4. Do not apply protective coatings other than renewal applications of specified wax.

To clean stainless steel:

1. Forceful hose washing is effective to remove dirt and grime
2. Do not attempt to remove corrosion marks

To clean concrete:

1. Forceful hose washing is effective to remove dirt and grime

Removing graffiti from all materials:

1. Use only knit cloths soaked in solvent
 - > Only attempt removal of graffiti with the solvent Acetone
2. Restore wax coating on bronze after graffiti removal - if needed

*An anti-graffiti coating may be applied to stainless steel and concrete during fabrication. The coating will darken the appearance of concrete.

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CONSTRUCTION PLAN (PHASING)

PHASE 1

75%



PHASE 2

25%



The project could be phased in two parts, as illustrated above, with an approximate 75% / 25% split of work between the two phases. It should be noted that phasing creates a more expensive project in the end as there will be redundant costs such as remobilization, insurances, increase in material costs, etc. The cost estimates included in this document illustrate this although they do not account for material cost increases or inflation as both of these are unpredictable, even speculatively, as the time frame for construction is currently unknown (at the time of writing). The obvious benefit of phasing is that capital costs can be deferred to allow for funding either through grants, donations or the Municipality's other funding streams.

The phasing suggested would allow for the new parking lot and sensory play area to be built at a later date. In the interim the existing asphalt would remain in place allowing this area to continue to serve as parking. The benefit of this phasing plan is that the operation of the area constructed during phase 1 can be isolated with little to no disruption during second phase construction.

11

COST ESTIMATES

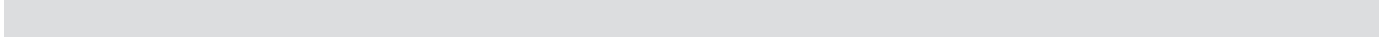
TOTAL PARK_COST ESTIMATE_FEB. 16 2021

<u>Item</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Quantity Cost</u>
1.0 Demolition, site prep, permits				\$ 109,000.00
1.1 Site mobilization/ demobilization (inc. locates, layout etc)	ls	\$ 15,000.00	1	\$ 15,000.00
1.2 Bonding + insurance	ls	\$ 15,000.00	1	\$ 15,000.00
1.3 Temp. site perimeter fencing	lin m	\$ 20.00	225	\$ 4,500.00
1.4 Silt control at CBs	ls	\$ 600.00	3	\$ 1,800.00
1.5 Silt Fence @ perimeter	lin m	\$ 12.00	225	\$ 2,700.00
1.6 Remove existing asphalt parking lot	sq m	\$ 25.00	2800	\$ 70,000.00
2.0 Grading, earthworks and servicing				\$ 120,000.00
2.1 Strip and stockpile topsoil	ls	\$ 30,000.00	1	\$ 30,000.00
2.2 Site grading	ls	\$ 50,000.00	1	\$ 50,000.00
2.3 Stormwater servicing	ls	\$ 40,000.00	1	\$ 40,000.00
3.0 Paving				\$ 310,500.00
3.1 Concrete pathways	sq. m	\$ 115.00	1200	\$ 138,000.00
3.2 Stone surface at Memorial	sq. m	\$ 300.00	100	\$ 30,000.00
3.3 Crushed stone @ contemplative grove	sq. m	\$ 45.00	200	\$ 9,000.00
3.4 Crushed stone path @ sensory play	sq. m	\$ 50.00	60	\$ 3,000.00
3.5 Asphalt Parking	sq. m	\$ 85.00	1050	\$ 89,250.00
3.6 Concrete pads- bench (3) + bike rack (1) + garbage (2)	sq. m	\$ 250.00	10	\$ 2,500.00
3.7 Poured in place concrete curb @ playground	lin m	\$ 125.00	50	\$ 6,250.00
3.8 Parking lot curbs and @ Maitland	lin m	\$ 125.00	260	\$ 32,500.00
4.0 Site furnishings + Memorial Artworks				\$ 130,250.00
4.1 Memorial area bench (custom)	ls	\$ 16,000.00	1	\$ 16,000.00
4.2 Memorial Board	ls	\$ 20,000.00	1	\$ 20,000.00
4.3 Bronze Skates	ea	\$ 2,500.00	8	\$ 20,000.00
4.4 Centre Line and Centre Ice Marker	ls	\$ 15,000.00	1	\$ 15,000.00
4.5 Building Corner Markers - posts	ea	\$ 6,000.00	3	\$ 18,000.00
4.6 Building Corner Markers - plaque	ea	\$ 1,500.00	1	\$ 1,500.00
4.7 Harvest Table	ea	\$ 15,000.00	1	\$ 15,000.00
4.8 Contemplative Space Benches	ea	\$ 3,000.00	3	\$ 9,000.00
4.9 Site Benches	ea	\$ 2,000.00	6	\$ 12,000.00
4.10 Garbage Cans	ea	\$ 750.00	2	\$ 1,500.00
4.11 Bike Racks	ea	\$ 750.00	3	\$ 2,250.00
5.0 Play equipment				\$ 100,000.00
5.1 Playground (allow \$100 000 incl. surface, Drainage, markup)	ls	\$100,000.00	1	\$ 100,000.00

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CONTINUATION FROM PREVIOUS PAGE

6.0 Planting					\$ 92,685.00
6.1	Soil Import	m3	\$ 100.00	300	\$ 30,000.00
6.2	Supply and install mulch at Trees	m3	\$ 150.00	30	\$ 4,500.00
6.3	Type 1 park seed mix hydro seeded with Terra Flex (oval + be	sqm	\$ 4.00	1640	\$ 6,560.00
6.4	Seed mix for meadow including install	sqm	\$ 7.00	860	\$ 6,020.00
6.5	Seed mix for eco-lawn including install	sq m	\$ 7.00	300	\$ 2,100.00
6.6	Seed mix for rain gardens including install	sq m	\$ 7.00	215	\$ 1,505.00
6.7	Deciduous trees (50mm plus)	ea	\$ 600.00	60	\$ 36,000.00
6.8	Memorial Trees (80mm)	ea	\$ 750.00	8	\$ 6,000.00
7.0 Electrical					\$ 50,000.00
7.1	Lighting including servicing	ls	\$ 50,000.00	1	\$ 50,000.00



Subtotal \$ 912,435.00
 Contingency @10% \$ 91,243.50

Total \$ 1,003,678.50

Detailed Design, Contract Docs + Contract Admin \$ 100,000.00

PHASE 1 OF 2_COST ESTIMATE_FEB. 16 2021

<u>Item</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Quantity Cost</u>
1.0 Demolition, site prep, permits				\$ 65,160.00
1.1 Site mobilization/ demobilization (inc. locates, layout etc)	ls	\$ 10,000.00	1	\$ 10,000.00
1.2 Bonding + insurance	ls	\$ 10,000.00	1	\$ 10,000.00
1.3 Temp. site perimeter fencing	lin m	\$ 20.00	280	\$ 5,600.00
1.4 Silt control at CBs	ls	\$ 600.00	2	\$ 1,200.00
1.5 Silt Fence @ perimeter	lin m	\$ 12.00	280	\$ 3,360.00
1.6 Remove existing asphalt parking lot	sq m	\$ 25.00	1400	\$ 35,000.00
2.0 Grading, earthworks and servicing				\$ 100,000.00
2.1 Strip and stockpile topsoil	ls	\$ 30,000.00	1	\$ 30,000.00
2.2 Site grading	ls	\$ 40,000.00	1	\$ 40,000.00
2.3 Stormwater servicing	ls	\$ 30,000.00	1	\$ 30,000.00
3.0 Paving				\$ 230,000.00
3.1 Concrete pathways	sq. m	\$ 115.00	1150	\$ 132,250.00
3.2 Stone surface at Memorial	sq. m	\$ 300.00	100	\$ 30,000.00
3.3 Crushed stone @ contemplative grove	sq. m	\$ 45.00	200	\$ 9,000.00
3.4 Crushed stone path @ sensory play	sq. m	\$ 50.00	60	\$ 3,000.00
3.5 Asphalt Parking	sq. m	\$ 85.00	400	\$ 34,000.00
3.6 Concrete pads- bench (3) + bike rack (1) + garbage (2)	sq. m	\$ 250.00	10	\$ 2,500.00
3.7 Parking lot curbs and @ Maitland	lin m	\$ 125.00	154	\$ 19,250.00
4.0 Site furnishings + Memorial Artworks				\$ 134,250.00
4.1 Memorial area bench (custom)	ls	\$ 20,000.00	1	\$ 20,000.00
4.2 Memorial Board	ls	\$ 20,000.00	1	\$ 20,000.00
4.3 Bronze Skates	ea	\$ 2,500.00	8	\$ 20,000.00
4.4 Centre Line and Centre Ice Marker	ls	\$ 15,000.00	1	\$ 15,000.00
4.5 Building Corner Markers - posts	ea	\$ 6,000.00	3	\$ 18,000.00
4.6 Building Corner Markers - plaque	ea	\$ 1,500.00	1	\$ 1,500.00
4.7 Harvest Table	ea	\$ 15,000.00	1	\$ 15,000.00
4.8 Contemplative Space Benches	ea	\$ 3,000.00	3	\$ 9,000.00
4.9 Site Benches	ea	\$ 2,000.00	6	\$ 12,000.00
4.10 Garbage Cans	ea	\$ 750.00	2	\$ 1,500.00
4.11 Bike Racks	ea	\$ 750.00	3	\$ 2,250.00
5.0 Play equipment				\$ -
6.0 Planting				\$ 66,235.00
6.1 Soil import, place and spread	m3	\$ 100.00	150	\$ 15,000.00
6.2 Supply and install mulch at Trees	m3	\$ 150.00	25	\$ 3,750.00
6.3 Type 1 park seed mix hydro seeded with Terra Flex (oval + be	sqm	\$ 4.00	1640	\$ 6,560.00
6.4 Seed mix for meadow including install	sqm	\$ 7.00	860	\$ 6,020.00
6.5 Seed mix for rain gardens including install	sq m	\$ 7.00	215	\$ 1,505.00
6.6 Deciduous trees (50mm plus)	ea	\$ 600.00	45	\$ 27,000.00
6.7 Memorial Trees (80mm)	ea	\$ 800.00	8	\$ 6,400.00
7.0 Electrical				\$ 50,000.00
7.1 Lighting including servicing	ls	\$ 50,000.00	1	\$ 50,000.00
Subtotal				\$ 645,645.00
Contingency @10%				\$ 64,564.50
Total				\$ 710,209.50
Detailed Design, Contract Docs + Contract Admin				\$ 75,000.00

PHASE 2 OF 2_COST ESTIMATE_FEB. 16 2021

<u>Item</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Quantity Cost</u>
1.0 Demolition, site prep, permits				\$ 50,080.00
1.1 Site mobilization/ demobilization (inc. locates, layout etc)	ls	\$ 5,000.00	1	\$ 5,000.00
1.2 Bonding + insurance	ls	\$ 5,000.00	1	\$ 5,000.00
1.3 Temp. site perimeter fencing	lin m	\$ 20.00	140	\$ 2,800.00
1.4 Silt control at CBs	ls	\$ 600.00	1	\$ 600.00
1.5 Silt Fence @ perimeter	lin m	\$ 12.00	140	\$ 1,680.00
1.6 Remove existing asphalt parking lot	sq m	\$ 25.00	1400	\$ 35,000.00
2.0 Grading, earthworks and servicing				\$ 30,000.00
2.2 Site grading	ls	\$ 15,000.00	1	\$ 15,000.00
2.3 Stormwater servicing	ls	\$ 15,000.00	1	\$ 15,000.00
3.0 Paving				\$ 74,250.00
3.1 Concrete pathways	sq. m	\$ 115.00	50	\$ 5,750.00
3.2 Asphalt Parking	sq. m	\$ 85.00	650	\$ 55,250.00
3.3 Parking lot curbs	lin m	\$ 125.00	106	\$ 13,250.00
4.0 Not used				
5.0 Play equipment				\$ 100,000.00
5.1 Playground (allow \$100 000 incl. surface, Drainage, markup)	ls	\$100,000.00	1	\$ 100,000.00
6.0 Planting				\$ 24,225.00
6.1 Soil import	m3	\$ 100.00	125	\$ 12,500.00
6.1 Supply and install mulch at Trees	m3	\$ 125.00	5	\$ 625.00
6.4 Seed mix for eco-lawn including install	sq m	\$ 7.00	300	\$ 2,100.00
6.5 Deciduous trees (50mm plus)	ea	\$ 600.00	15	\$ 9,000.00
Subtotal				\$ 278,555.00
Contingency @10%				\$ 27,855.50
Total				\$ 306,410.50
Detailed Design, Contract Docs + Contract Admin				\$ 25,000.00

END OF REPORT