



CITY OF KAWARTHA LAKES

Centennial Trailer Park Master Plan

April 2024



SGL



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Executive Summary

The City of Kawartha Lakes is preparing a Master Plan to address the continued operation of Centennial Trailer Park (the park), for future rehabilitation, replacement, or expansion over the next 20 years. Municipally owned, the park is a permanent seasonal park with 173 trailer lots located 5 kilometers west of Kirkfield. The park is bisected by Centennial Park Road and surrounded by Canal Lake. The property was acquired from the federal government in 1961, as part of the County of Victoria 100th Anniversary celebrations.

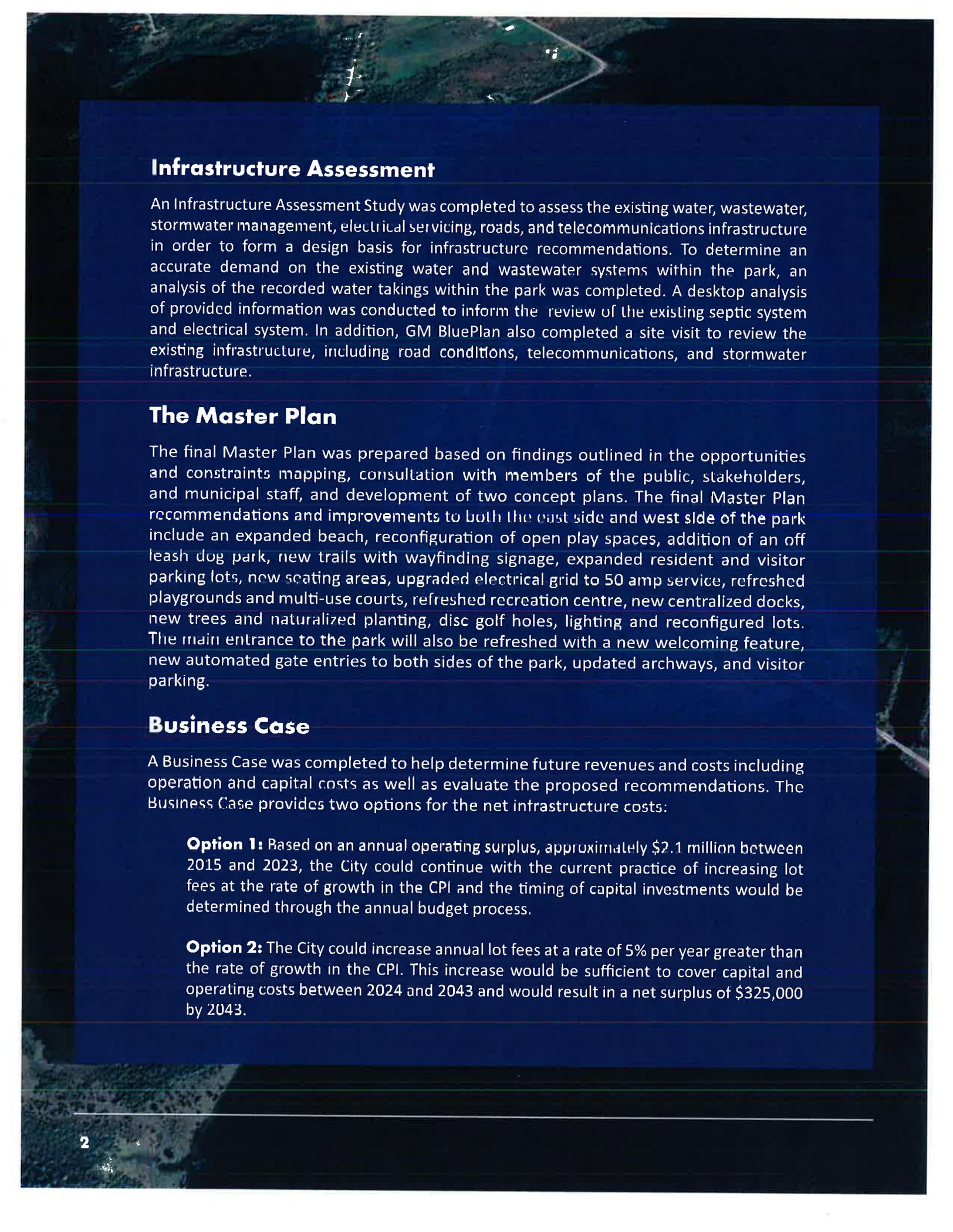
The Centennial Trailer Park Master Plan (CTPMP) provides a set of recommendations for the short, medium and long term. The CTPMP was developed over three phases: phase 1 involved community engagement and the preparation of a Background Review and Analysis, phase 2 also involved community engagement and the creation of opportunities and constraints mapping, two Concept Plans illustrating two different options on how the concept plans may develop over time, and the preparation of a Draft Master Plan, and phase 3 involved the creation of a final Master Plan and Implementation Strategy

The recommendations are informed and respond to feedback from community and stakeholder engagement, a comprehensive review of existing conditions, assessment of existing infrastructure, review and inventory of the existing site, analysis of existing operating practices, and services offered. This work includes a community profile, environmental scan, business case and provides a set of recommendations over a short, medium and long term timeframe. The CTPMP vision builds upon City policy direction as well as public and stakeholder consultation to address environmental, social, and economic concerns, and ensuring that the park, can operate sustainably over the long term.

Community and Stakeholder Engagement

Phase 1 included an online survey where participants indicated changes or improvements and/or what should remain the same. In addition, there was a stakeholder meeting where key staff from Parks and Recreation, Engineering, and stakeholders such as “Jackson Water” were consulted to develop the CTPMP.

Phase 2 engagement took place as a virtual open house with members of the public to review the Draft CTPMP and provide additional feedback and desired amenities. Overall, there was a very positive response to the presentation.



Infrastructure Assessment

An Infrastructure Assessment Study was completed to assess the existing water, wastewater, stormwater management, electrical servicing, roads, and telecommunications infrastructure in order to form a design basis for infrastructure recommendations. To determine an accurate demand on the existing water and wastewater systems within the park, an analysis of the recorded water takings within the park was completed. A desktop analysis of provided information was conducted to inform the review of the existing septic system and electrical system. In addition, GM BluePlan also completed a site visit to review the existing infrastructure, including road conditions, telecommunications, and stormwater infrastructure.

The Master Plan

The final Master Plan was prepared based on findings outlined in the opportunities and constraints mapping, consultation with members of the public, stakeholders, and municipal staff, and development of two concept plans. The final Master Plan recommendations and improvements to both the east side and west side of the park include an expanded beach, reconfiguration of open play spaces, addition of an off leash dog park, new trails with wayfinding signage, expanded resident and visitor parking lots, new seating areas, upgraded electrical grid to 50 amp service, refreshed playgrounds and multi-use courts, refreshed recreation centre, new centralized docks, new trees and naturalized planting, disc golf holes, lighting and reconfigured lots. The main entrance to the park will also be refreshed with a new welcoming feature, new automated gate entries to both sides of the park, updated archways, and visitor parking.

Business Case

A Business Case was completed to help determine future revenues and costs including operation and capital costs as well as evaluate the proposed recommendations. The Business Case provides two options for the net infrastructure costs:

Option 1: Based on an annual operating surplus, approximately \$2.1 million between 2015 and 2023, the City could continue with the current practice of increasing lot fees at the rate of growth in the CPI and the timing of capital investments would be determined through the annual budget process.

Option 2: The City could increase annual lot fees at a rate of 5% per year greater than the rate of growth in the CPI. This increase would be sufficient to cover capital and operating costs between 2024 and 2043 and would result in a net surplus of \$325,000 by 2043.

The contents of this Report are outlined below:

Section 1: Site Location and Master Plan Summary



Section 2: Purpose of the Plan



Section 3: Community Profile, Environmental Scan
and Existing Park Features



Section 4: Community Engagement Overview



Section 5: Park Policy, Plans, and Guidelines



Section 6: Park Design Standards



Section 7: Master Plan Recommendations



Section 8: Implementation Strategy



Section 9: Appendices



Site Location and Master Plan Summary

The park is located at 943 and 944 Centennial Park Road, just North of Portage Road (Highway 48), and 5 kilometers west of Kirkfield. The park is located within Canal Lake and is approximately 12.75 hectares large.

The park is an irregularly shaped lot of land and is accessible either from north or south along Centennial Park Road (Highway 33).

Currently, the park has 173 sites that can accommodate trailers up to 40 feet in length.

It operates seasonally from May until October each year, providing a relaxing seasonal vacation experience. Trailers may remain on site during the off-season, but access to the park during the off-season period is limited. The park includes such amenities as washrooms and showers, two playgrounds, laundry facilities, beach, boat launch and docking, volleyball court, baseball diamond, picnic shelter, horseshoe pits, secured gate entry, and is pet friendly (**Figure 1**).



Figure 1: Map of Study Area

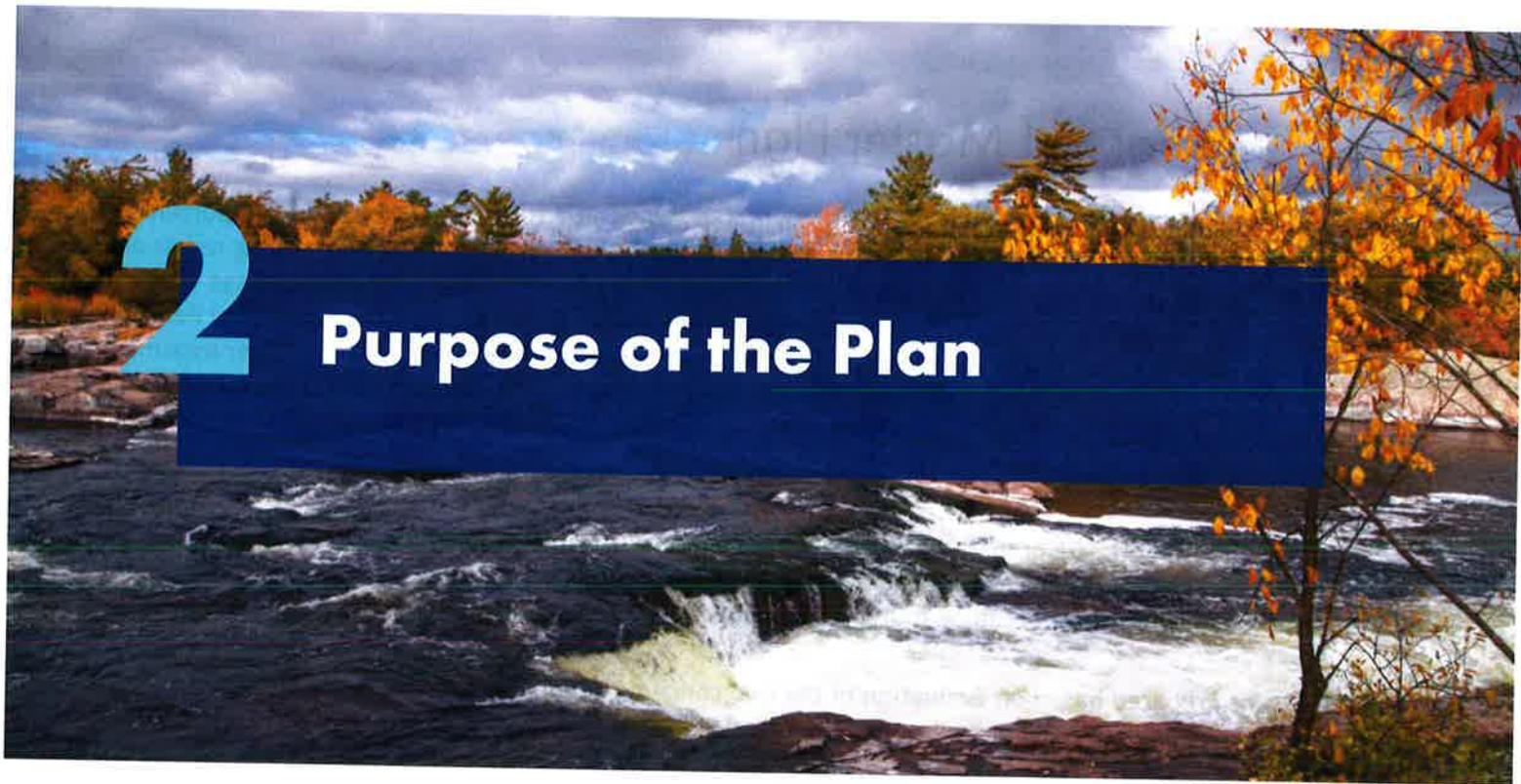
1.1 Summary of Master Plan

Preparation of the Master Plan was first informed by an in-person site visit, background review and opportunities and constraints mapping ([Appendix A](#)). The site visit, policy background review, inventory of existing assets and opportunities and constraints maps, prepared by SGL, identified areas, amenities, and existing uses that can be revitalized, replaced, or removed. A community profile and environmental scan was completed by Parcel. A background review of existing water, wastewater, stormwater, roads, water infrastructure, and water treatment throughout the park was also completed by GM BluePlan. In addition, questions were posed to members of the public through an online survey to gain more information on what park users currently liked about the park and what should change.

Based on this information, SGL prepared two concept plans that illustrated two different ways the park use can transform. Concept 1 illustrated a Nature and Sustainability approach and Concept 2 illustrated a Renovate and Maintain approach. The concepts can be found in [Appendix A](#).

The CTPMP was prepared based on evaluation of the two concepts, feedback from municipal staff, stakeholder consultation, and results from the online survey. A detailed description of the Master Plan and recommendations are provided in Section 8 of this Report.





Purpose of the Plan

2.1 Purpose of the Master Plan

The purpose of the CTPMP is to provide recommendations for the success of the park over the next 20 years. The recommendations identify future rehabilitation, replacement or expansion of the park and at a high level include:

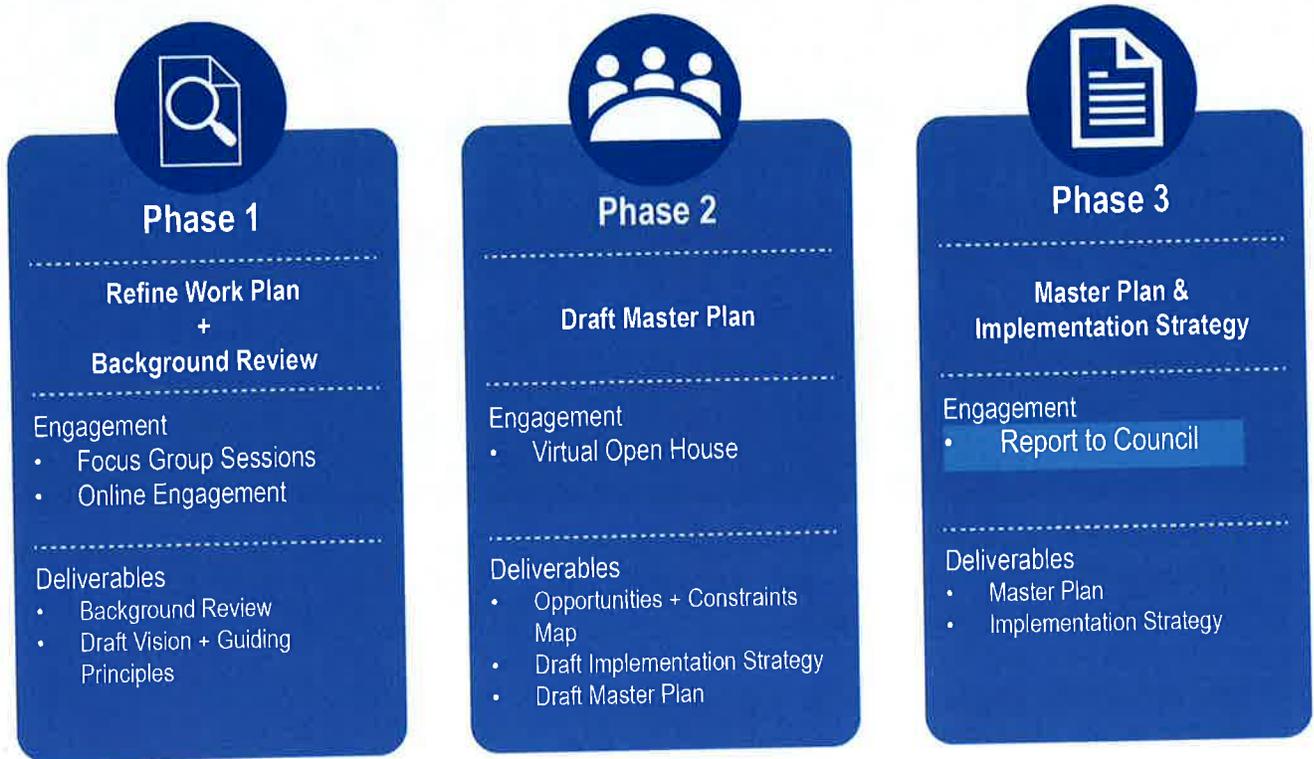
- Assessment of infrastructure (including hydro, water mains and site services, wastewater, storm water management, waste collection, facilities, playground equipment, recreational amenities, trees/landscape, beach/shoreline)
- Review of existing site conditions and configuration
- Analysis of operating practices and services offered
- Community engagement

In addition to the recommendations, a Business Case and Implementation Strategy ([Appendix B](#)) have been prepared.



2.2 Study Process and Timelines

The development of the CTPMP occurred over approximately 9 months, from September 2023 to April 2024 and was divided into three phases as outlined below:



Phase 1

A review of background information including research on the park's history, existing conditions, policy context, envisioned uses to help inform the development of the CTPMP were completed as part of phase 1. Sections 2 to 6 of this report includes the background information. As part of community engagement an online questionnaire was provided to the public and trailer residents and a stakeholder meeting was held to help prepare the vision and provide valuable feedback.

Phase 2

The results of the background review are visually represented in opportunities and constraints mapping outlining areas that may be developed, programmed, or redesigned. These maps informed the development of two concept plans which demonstrate two different ways Centennial Trailer Park could change over time. The evaluation of the two concepts led to the preparation of the Draft CTPMP and Implementation Strategy.

Phase 3

The vision and goals, as well as the CTPMP and Implementation Strategy, were refined based on public feedback, analysis of costs, staff review and future viability for the park. The preparation of the CTPMP and Implementation Strategy involved the preparation of this Master Plan Report which summarizes all work completed to date, outlines key elements of the final CTPMP, and outlines recommendations for the implementation of park improvements over an immediate, short-term, medium-term and long-term timeline.

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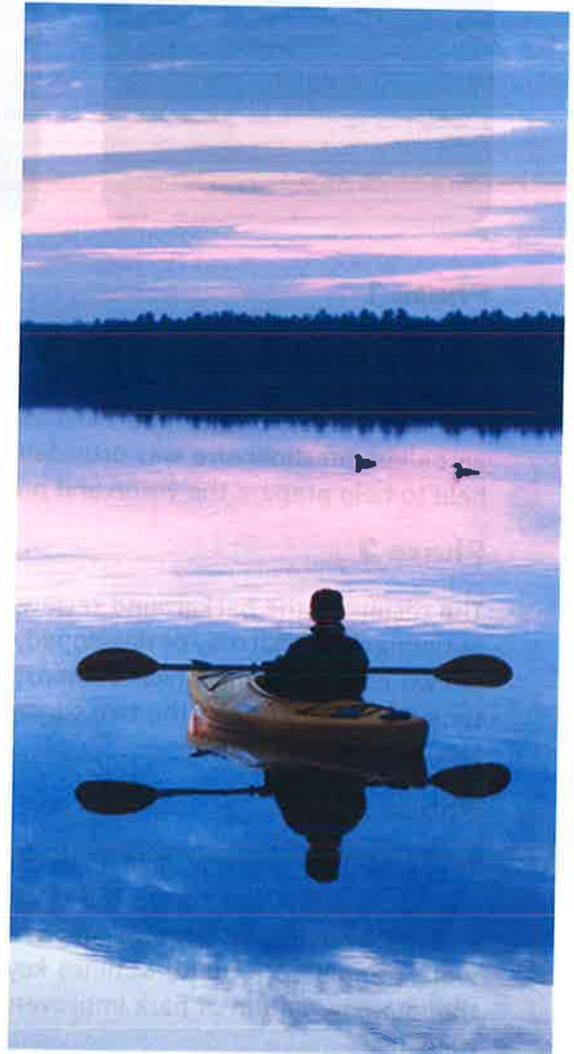
Community Profile, Environmental Scan and Existing Park Features

In order to inform the Master Plan a community profile, environmental scan, inventory and description of existing park features was completed.

The community profile looked at the demographic profile of the immediate area surrounding the park relative to the City of Kawartha Lakes and other nearby municipalities, including those where existing park residents live. This review relied on information from the Census of Canada and was used to benchmark park residents to those residing elsewhere in Kawartha Lakes or in other surround jurisdictions. As well, based on the information available from the City, a catchment area for the park residents was identified. This helped identify any nearby and competitive trailer parks.

An environmental scan examined best practices at trailer parks and trends occurring throughout Ontario and in surrounding municipalities based on available industry-wide data to identify gaps in the operation or amenities provided at the park.

Finally, an inventory and description of existing park features was prepared to better understand what the park offers to residents, what condition the features were in and how they compare to other parks in the catchment area.



3.1 Community Profile

3.1.1 Location of Park Occupants

The primary residence of seasonal site occupants at the park have been mapped. The primary residence is based on the forward sortation area (“FSA”) data of the primary renter of each seasonal park site, which has been provided by City of Kawartha Lakes staff.

Figure 2 shows that primary residence for seasonal site occupants at the park. As shown, the park seasonal occupants generally come from across the Greater Golden Horseshoe (“GGH”), including Durham Region, Peel Region, Simcoe County and Niagara Region.

Also note that a significant share of seasonal occupants come from a small number of municipalities. Some 40% of seasonal occupants have a primary residence in one of four municipalities, those being:

- City of Oshawa (17% / 22 seasonal site owners)
- City of Kawartha Lakes (8% / 10 seasonal site owners)
- City of Mississauga (9% / 11 seasonal site owners)
- City of Barrie (7% / 9 seasonal site owners)

3.1.2 Demographic and Household Profile

To better understand the demographic and household profile of people living near the park, Parcel has examined the profile of a local area near the park, against the City of Kawartha Lakes, Orillia and Peterborough.

Based on 2021 Census of Canada information, it was found that the local area —like the City of Kawartha Lakes—trends older, likely due to the area’s appeal as a popular retirement and cottage destination. This coincides with a smaller share of residents under the age of 54. The older age profile of residents in these areas is also reflected in labour force trends, with a smaller share of local area and Kawartha Lakes residents currently in the workforce.

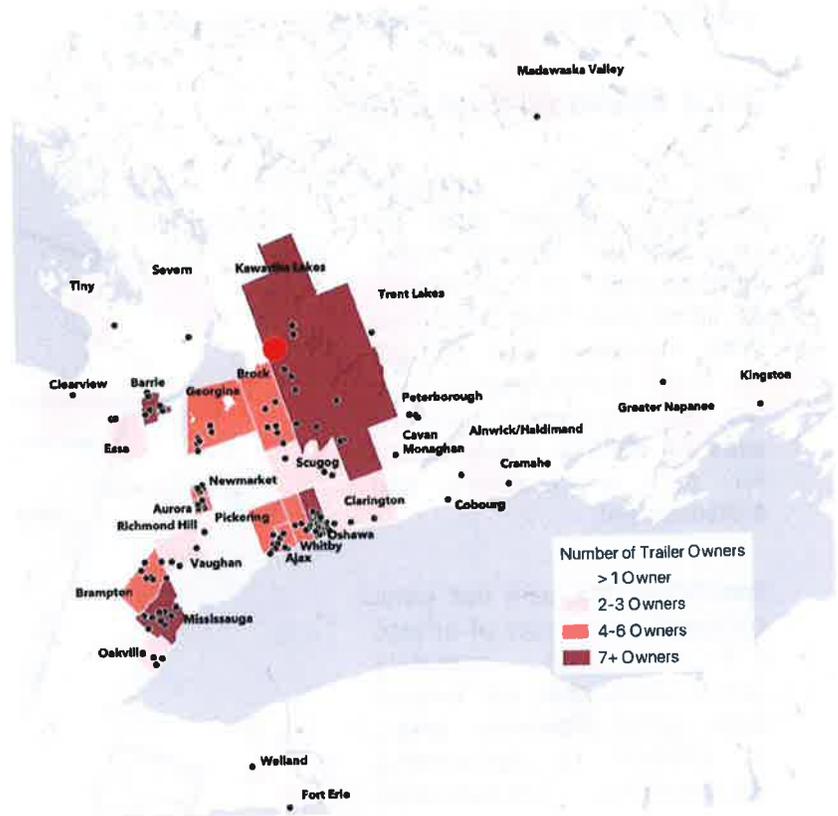


Figure 2: Home Location of Current Park Occupants

Source: Parcel based on information provided by the City of Kawartha Lakes

The local area and Kawartha Lakes also have a comparably high share of owner households. This is due to the prominence of single-and-semi-detached units in these areas. Furthermore, the household income also trends lower than the province. Estimated at \$92,700 in the local area, this is 16% below the average household income of the province.

Further details related to the demographic and household profile of residents, including a description of the exact areas assessed, is included in [Appendix C](#).

3.1.3 Environmental Scan

The service offerings, amenities, facilities and fee structure of several other campgrounds in comparison to Centennial Trailer Park has been examined. The purpose of this environmental scan has been to identify potential gaps to identify opportunities for park improvement and enhancement.

Specifically, the park has been compared to a range of private and municipal operating campgrounds that are located both within Kawartha Lakes, in addition to surrounding municipalities. Consideration was also given to campgrounds that may draw on or appeal to existing renters, based primarily on their location. The location and specific parks selected are indicated in [Figure 3](#).



Figure 3: Demographic & Household Profile - Key Market Areas

There are many commonalities across the campgrounds examined. Most notably, all the campgrounds operate from early-to-mid May until mid-to-end of October, irrespective of their location. All the sites also offer 30 amp servicing, while some also include a limited number of sites with 50 amp servicing and requesting a higher fee for renting of these locations.

Interestingly, most of the campgrounds offer full hookups at every site. Only one campground—Hammock Harbour in Orillia—has no sewage hookup and charges users for pumping services (\$16/weekday and \$35/weekend). Like Centennial Trailer Park, the Beavermead Campground in Peterborough has full servicing at most sites, with a smaller share of less expensive, unserviced sites.

There is a range and variability in how each campground approaches winter trailer storage. Like the park, many of the campgrounds include this fee in their base rates, while others charge an additional fee to individuals who choose to leave their trailers year-round. This fee ranges from as low as \$50 to a high

of \$550. Nearly one third of the campgrounds also charge for seasonal boat storage, with prices ranging from \$45 to \$150 per season. The intent of these charges is to help monitor who and what is being left in the campgrounds. It is also intended to disincentivize renters from unnecessarily leaving belongings and equipment on the property for extended periods of time.

To further understand how the park compares to other campgrounds, a comparison of specific features and amenities was done more directly. Refer to **Appendix B** for detailed comparison tables in the Business Case.

3.1.4 Fees

Fees make up the majority of the revenue collected to run the park. Based on the existing service provision, location and other amenities, there is an opportunity to increase in rental rates.

Current rates for seasonal campsites at the park are in **Figure 4**. Private campsites request a base rate ranging between \$2,300 and \$4,870 per site. Premium and waterfront sites are priced higher than this rate, further demonstrating the price difference between the park and private campgrounds. We note that the park does not include prices for premium or waterfront sites, as well as larger sites within the park. Therefore, there may be an opportunity to update the pricing model.

The base rate at municipal campgrounds range between \$1,890 and \$3,600 per site. While the rate of sites at Port Glasgow Trailer Park in West Elgin are below the asking rates of the park, this campground

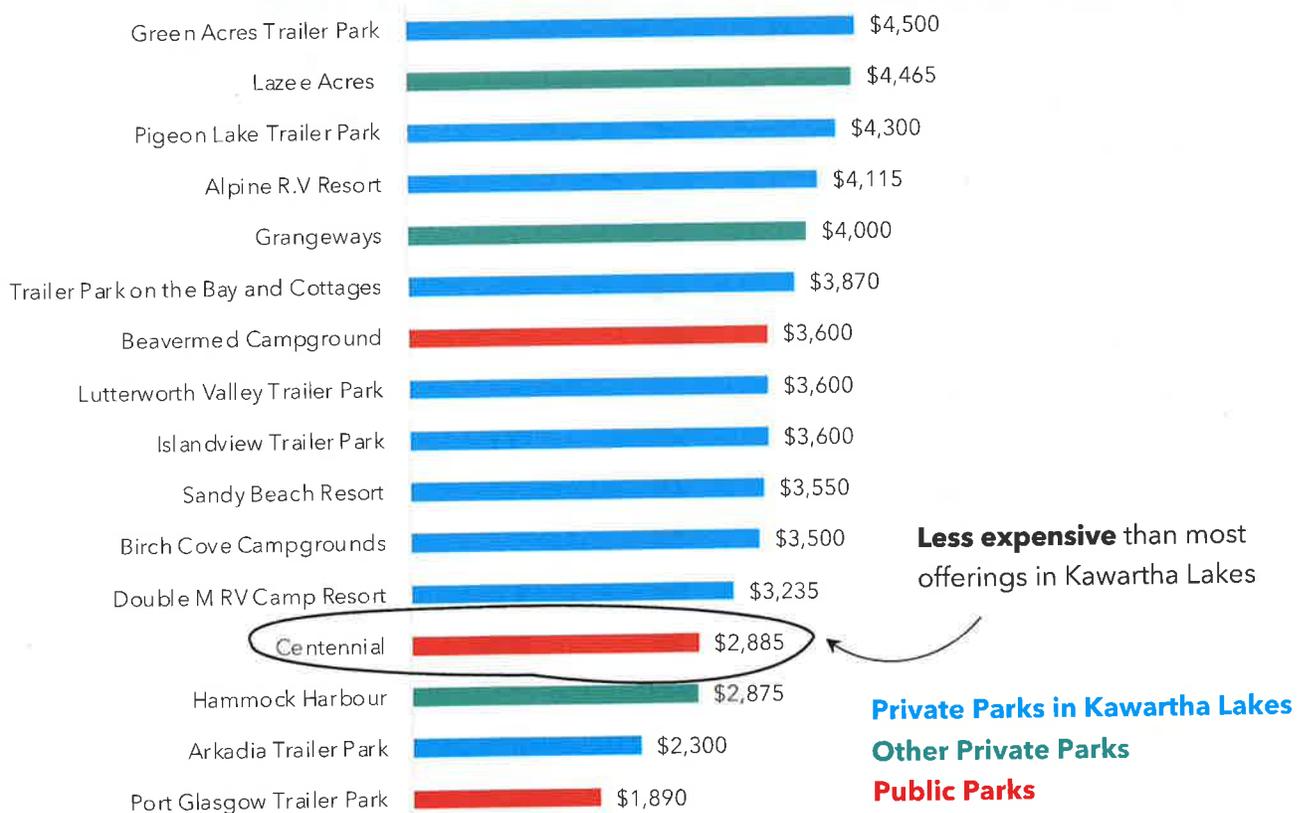


Figure 4: Base Rate Structure

offers fewer services and amenities. Reduced rates at Port Glasgow are also likely tied—in part—to the campgrounds location in western Ontario.

3.1.5 Visitor Rates

Except for one, all other campgrounds examined offer daily visitor rates. Daily visitor rates range from as low \$1 per day at Birch Grove Campgrounds to a high of \$12 per day at Grangeways RV Park & Family Campground.

Recognizing that visitors often seek longer or multiple stays, many of the campgrounds also offer weekly or seasonal visitor rates. The maximum seasonal rate associated with the “Trailer Park on the Bay and Cottages” has a seasonal rate of \$270. This rate is well below the 2023 seasonal rate for guests at the park of \$378.

3.1.6 Increase Sites

The number of seasonal sites offered is comparable to other campgrounds across Kawartha Lakes and beyond. That said, many of the other campgrounds also provide other site formats, including overnight rental locations and a limited number of cottages or cabin rentals. The intent is often to provide a location for visitors, travelling trailers, or those interested in a shorter seasonal option. Indirectly, it also exposes more

	Day	Night	Season
Centennial Park			\$378*
Arkadia Trailer Park	\$6	-	\$30
Trailer Park on the Bay and Cottages	\$7-\$10	-	\$270
Birch Cove Campgrounds	\$1	-	\$35
Sandy Beach Resort	\$6	\$12	-
Bell Haven	\$8	\$15	\$250
Alpine R.V Resort	\$10	-	-
Double M RV Camp Resort	-	-	\$150
Islandview Trailer Park	\$5	\$7	\$80
Green Acres Trailer Park	\$2	-	-
Pigeon Lake Trailer Park	\$6	-	-
Lutterworth Valley Trailer Park	\$8	\$16	-
Hammock Harbour	\$5	\$30	\$70
Grangeways	\$12	-	-
Lazee Acres	\$7	\$10	\$180

- Private Parks in Kawartha Lakes
- Other Private Parks

Figure 5: Visitor Rates & Fees

Source: Parcel.

* Includes guest fee and parking pass. Seasonal secondary parking pass available for \$162.

Note: Excludes Nestle Inn, Beavermed Campground & Port Glasgow Trailer Park

people and users to each campground, and its offerings and serves as a potential way to maintain interest and demand.

There is an opportunity to both increase the number of seasonal sites at the park, and in addition add a small number of short term stay lots.

3.1.7 Parking

Most trailer parks permit only one car per site, as part of the seasonal rate, and stipulate that a parking tag must be visible, and always displayed on the dashboard.

Additional vehicles, in addition to visitor vehicles, are subject to an additional charge, and must be in a designated parking lot with a parking tag similarly displayed on the dashboard of the vehicle.

Other trailer parks maintain the right to not only tow untagged vehicles, but also to fine those not adhering to parking restrictions and payments. In some cases, visitor parking is physically separated from overflow seasonal camper’s vehicle parking to ease the tracking and monitoring of vehicles.

Additional and visitor cars at the park are to have a tag indicating they have paid the fee. As with the visitor fees, there needs to be consistent enforcement of parking regulations and fees.

3.1.8 Occupancy

To mitigate congestion, noise, and reliance on external site spaces (tents, sheds etc.) there is opportunity to restrict seasonal site occupancy.

Many of the other trailer parks restrict the number of people that are permitted on each lot. While the park permits 6 and in some cases 8 people per site, many of the other campground’s cap lots at 4 or 6 people. This often includes a maximum of 2 adults, with remaining occupants anticipated to be dependent children, or others under 18 years old.

Some of the trailer parks specify a base rate to a maximum of only 4 people but offer users the opportunity



Figure 6: Total Sites and Composition

Source: Parcel

to pay a rate for additional occupants. This rate structure ranges from \$7 - \$14 per person per night to \$150 per additional person per season. Based on our review there is no recommendation to restrict occupancy at the park beyond what is already in force. However, we do recommend the City better track visitors at the park and enforce visitor fees.

3.1.9 Amenities

A review of amenities at other campgrounds suggests that existing offerings at the park are comparable to those at other trailer parks. However, our review highlighted a few amenities that could be integrated at to differentiate Centennial Trailer Park.

3.1.9.1 Recreation Hall

A Recreation Hall is a common amenity at other campgrounds. That said, recreation halls at other campgrounds include a more fulsome range of features, including:

- **Television:** Some sites have a TV lounge or area that is often co-located with other amenities including billiard tables, ping-pong, and board games.
- **Lending Library:** Some of the recreation halls feature a library where occupants are encouraged to borrow, exchange, or leave books for other users of the park.
- **Planned Activities:** Many of the sites offer regular programming or planned activities that generally take place in the recreation hall. Activities include euchre, darts, organized dances, and other games that are designed to bring park users together.

3.1.9.2 Convenience or General Store

Many of the other campgrounds offer a general/convenience store on site. These stores are generally a small standalone building or are integrated and operated as an extension of site offices. Should the existing office at the park be extended, there may be a benefit in introducing a small store as a component of this space.

- Offerings in stores range from snacks (e.g., candy, chocolate, ice-cream) and beverages (e.g., pop, juice, water etc.) to seasonal items that support park activities (e.g., firewood, ice cubes, fishing bait etc.).
 - » The intent is to maintain a small supply of non-perishable food items that will support ad-hoc requests from seasonal users or their visitors.



3.2 Financial Matters

3.2.1 Capital/Operating Budget

Figure 7 compares revenues and expenses at the park from 2015 to present. Values reported for 2023 Year to Date (YTD) reflect estimates for the campground up until November 28th, 2023.

As shown, the park has had an operating surplus since 2015. Since 2021—after the core of the COVID-19 Pandemic—the operating surplus from the park has increased. This is due to a shift in the park’s annual expenses, which have dropped 30% since 2021, due to vacant staff positions, which have reduced staffing costs.

Between 2015 and YTD 2023, an operating surplus of approximately \$2.1 million from the park was generated.

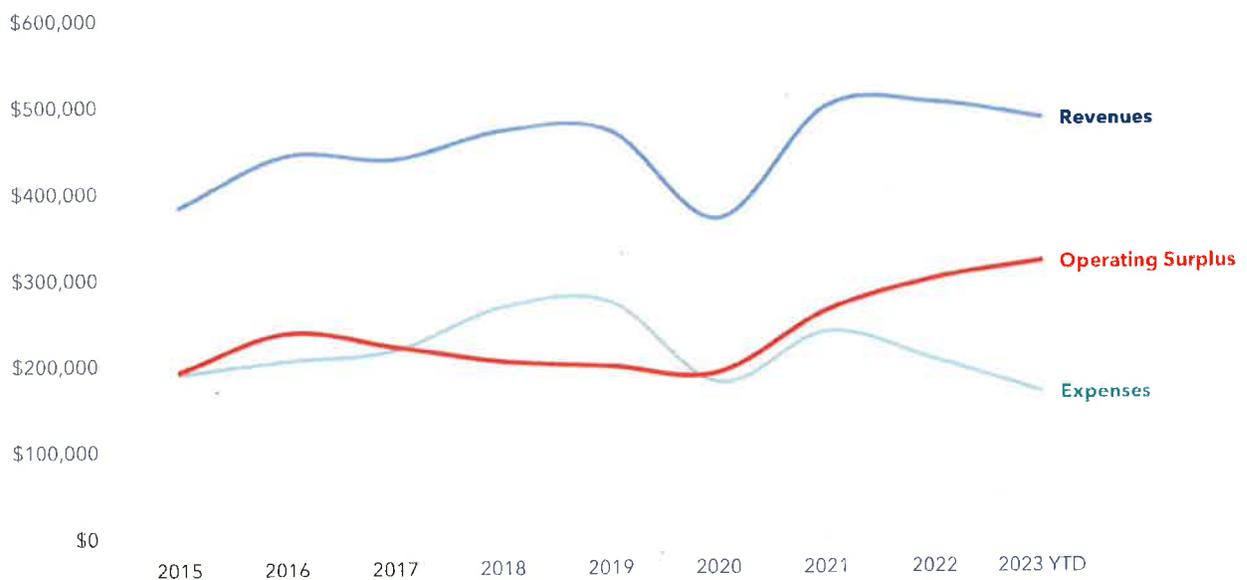


Figure 7: Park Profitability, 2015 to 2023 YTD

Source: Parcel based on financial information provided by Kawartha Lakes.

Having completed a more thorough review of the parks current and historical financials, several trends appear. In particular, and as it relates to revenues, these include:

- As shown in **Figure 8**, rentals have accounted for the largest share of park revenues every year, averaging 84% of total revenues since 2015. That said, revenues attained from trailer park rentals have only increased some 10% since 2015. This is largely due to minimal adjustments to the asking rent per site over this period.
- To this end, increasing the asking rent of seasonal sites at the park has the greatest potential impact on increasing park revenues.
- Other than revenue from site rentals, the most significant source of revenue to the park each year is from Hydro Servicing Charges, representing approximately 10% of total revenues. Boat docking and launching typically accounts for some 5% of the parks total annual revenues, the majority of which comes from dock rentals year-over-year.

See **Appendix B** for a more detailed revenue breakdown.

In relation to existing and historical expenses:

- As shown in **Figure 9**, hydro-related expenses and other miscellaneous expenses account for the largest share of park expenses, some 32% and 43% respectively in YTD 2023. The volume of their miscellaneous expenses has increased in recent years due to the addition of security at the park.
- Lower park expenses can be attributed, in part, to recent reductions in employee wages and expenses. This is largely due to the COVID-19 Pandemic, as there was a reduction in the number of seasonal staff. Post COVID-19 related closures, the park has experienced a number of vacant staff positions which has reduced total wage-related expenses. While staffing expenses have declined in recent years due to the vacant positions, it is anticipated in the fullness of time these positions will be filled.

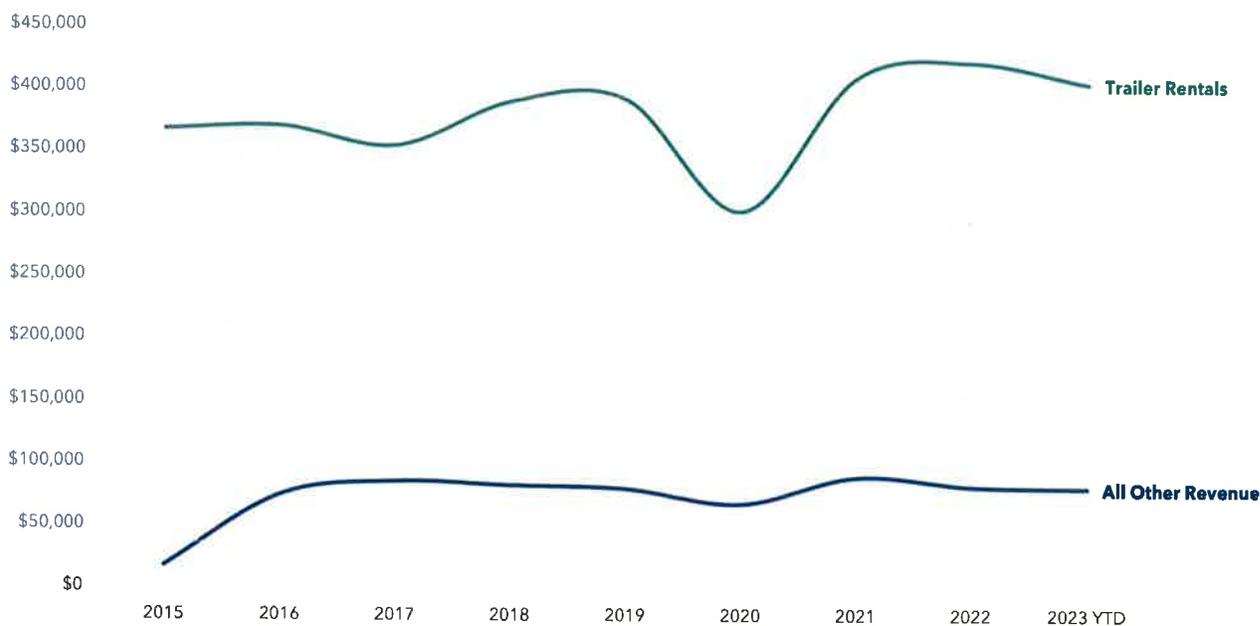


Figure 8: Centennial Park Revenue, 2015 to 2023 YTD

Source: Parcel based on financial information provided by Kawartha Lakes. "All Other Revenue" includes Hydro Service Charges, Boat Docking & Launching, Shower & Laundry, Miscellaneous Revenue & Trailer Park Day Use

- Notwithstanding the trends highlighted above, expenses at the campground have remained consistent year-over-year, with marginal changes explained by one-time purchases or repairs rather than larger scale changes.

In addition to these operating expenses, the City has also undertaken a range of capital projects projects at the park. These capital expenditures are summarized below and include:

- Park upgrades including the installation of security gates, replacement of wooden docks with aluminum docks, and replacement of tiles in the shower and new toilets in 2015 at a cost of \$50,000;
- Upgrades to the playground to replace existing sand surfaces with fiber wood carpet in 2016 at a cost of \$6,000;
- Resurfacing of roadways within the park in 2018 at a cost of \$87,000;
- Installation of a park shelter in 2018 at a cost of \$50,000;
- The replacement and upgrade of exterior lighting in 2018 at a cost of \$7,000;
- Upgrades and renovation of the washrooms in 2018 and 2019 at a cost of \$327,000;
- Upgrades to the existing boat launch, access and docking in 2022 at a cost of \$55,000; and,
- The replacement of the shingle roof at the water treatment plant with a steel roof at a cost of \$10,000 in 2022.

In total, these capital costs undertaken between 2015 and 2022 amounted to approximately \$592,000 and are in addition to the operating expenses identified above.

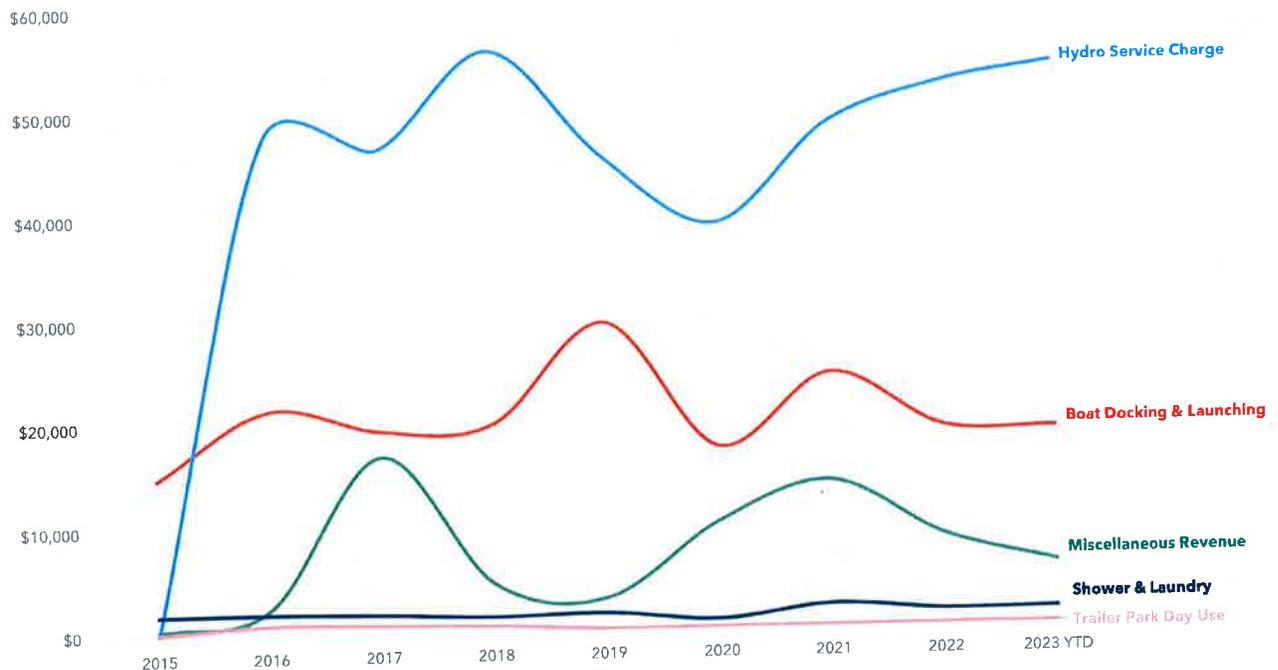


Figure 9: Park Expenses, 2015 to 2023 YTD

Source: Parcels based on financial information provided by Kawartha Lakes



3.3 Infrastructure

GM BluePlan Engineering (GMBP) was retained to complete an Infrastructure Assessment Study (IAS) in support of the CTMP. Refer to [Appendix D](#) for the IAS, which provides a technical review of the provided background documents on park infrastructure and recommendations for future improvements to the water, wastewater, stormwater, roads, electrical, and telecommunications infrastructure.

A review of other trailer parks infrastructure, along with input from the City's current contractors, aided in recommendations put forward to improve, maintain, or replace the existing infrastructure.

Based on the background information provided for the water treatment and distribution system, along with the existing and anticipated future water demand within the park, an expansion of the existing water system is not recommended. It was determined that even with a minor increase in the number of lots, additional water infrastructure would not be required. If in the future the City's water contractor identifies increased water usage or water quality issues, an analysis of the water system should be conducted to remedy the issue.

For wastewater treatment, it is recommended that the functionality of both septic systems be evaluated and replaced if required. It is recommended to retain a professional to evaluate the functionality of the existing septic systems - both from a treatment and capacity perspective.

The Master Plan recommends that localized collection systems be constructed for the lots currently without gravity sewer connections. The localized systems will include centralized holding tanks that are connected to sewers extended along the gravel driveways with sewage service connections provided to each lot. The holding tanks are sized for one week of average daily flow (ADF) as it was assumed that the weekly pump-out operations would continue. Sizing of the tanks can be confirmed at detailed design once the optimal number of pump-out operations per week is confirmed by the City. This option provides an upgraded level of service to the park residents and improved health and safety for park staff as the pump-out operations are limited to localized facilities with improved access. It is recommended that float sensors are added to the holding tanks to notify staff when sewage levels are reaching the tank's limit, thereby minimizing the potential for spills within the park.

GM BluePlan reviewed the existing road infrastructure during the site walk and provided the recommendation that the existing roadways within the park be repaired and re-graded where required. This can be completed on an as-needed basis with an annual budget allocated towards road repairs. The condition of the existing roadways should be evaluated with priority road sections identified for repair in the near-term.

For areas that require additional gravel roadway, parking areas, or driveway to achieve the Master Plan, a consultant should be retained to recommend a road design profile that will be suitable for the soil conditions and vehicle loadings anticipated at Centennial Trailer Park.

Based on feedback from the City and park residents, along with the reports of frequent power outages associated with the current 30 amp system, it is recommended to upgrade the park from the existing 30 amp system to a 50 amp system. While the capital cost will be substantial, it will reduce the maintenance costs and service calls required to maintain the existing 30 amp system in the long-term.

In addition to the improvements to the electrical system, it is recommended to install sub-meters for trailer park lots. Sub-metering involves the installation of individual meters for each trailer lot. The implementation of sub-meters will allow accurate tracking of individual unit usage, allowing the City to understand overall cost of utilities and identify where utility use is higher. Implementation could reduce overall utility costs and improve energy efficiency.

WIFI is available in proximity to the office on the west side of the park. Additional telecommunications infrastructure is not provided to the residents; however, residents do have the option of paying for telecommunications companies to install telecom cable to their individual lot. While it is recommended that the free WIFI service for residents continue, additional telecommunications infrastructure has not been recommended as part of this CTPMP.

Green infrastructure is typically defined as 'natural vegetative features and systems, parklands, stormwater management systems, trees, and permeable surfaces. It has also been referred to as 'blue-green' infrastructure which incorporates features that assist in meeting climate change goals such as efficient water use. The following green infrastructure opportunities should be explored during the implementation stage of the recommendations stemming from the CTPMP:

- Rainwater harvesting: direct downspouts to vegetated areas and/or collect rainwater in rain barrels to use for watering lawns or gardens.
- Continue to enforce restriction on using potable water within the park for lawn or garden watering.
- Incorporate dense 'no-mow' vegetation, bioswales, and rain gardens where possible to reduce stormwater runoff and improve water quality.
- Incorporate permeable pavement where practical to reduce stormwater runoff and improve water quality.

Future renovations within the communal washroom and/or laundry facilities should consider low-flow appliances.

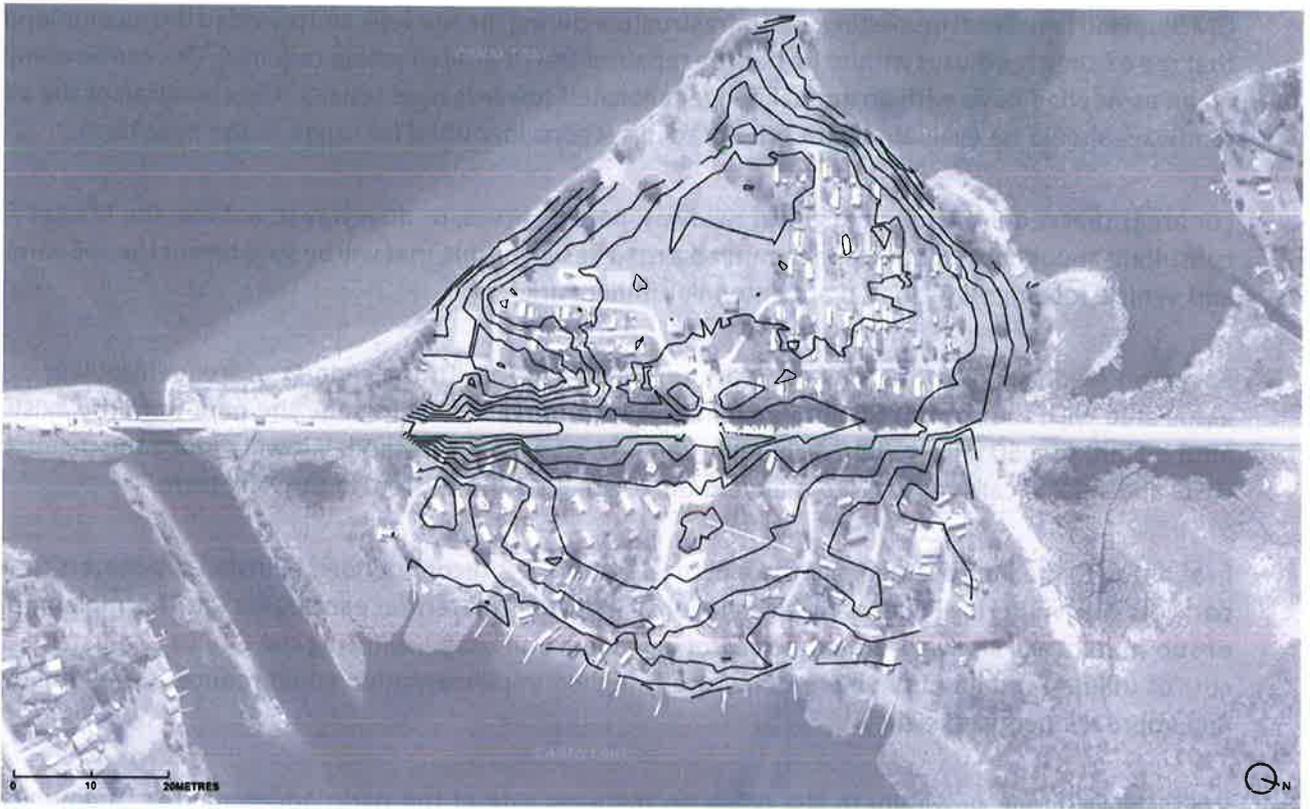


Figure 10: Topography Map

3.4 Existing Site Features

3.4.1 Topography and Existing Vegetation

Existing topography of the subject site is relatively flat within the park, with a slope to higher elevation along Centennial Park Road. Topography elevates further down at the edges of the park along the shoreline. The park contains many mature shade trees, spread out throughout the park between trailer lots and in common outdoor amenity areas.

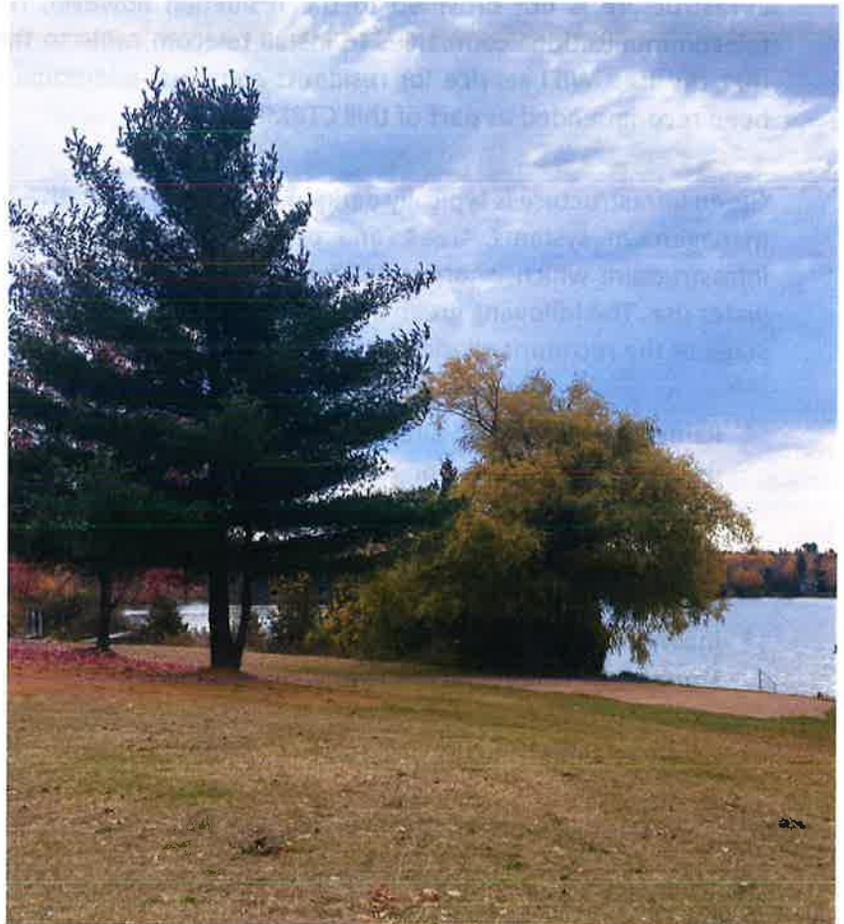




Figure 11: Sloping Topography from Centennial Park Road into the park

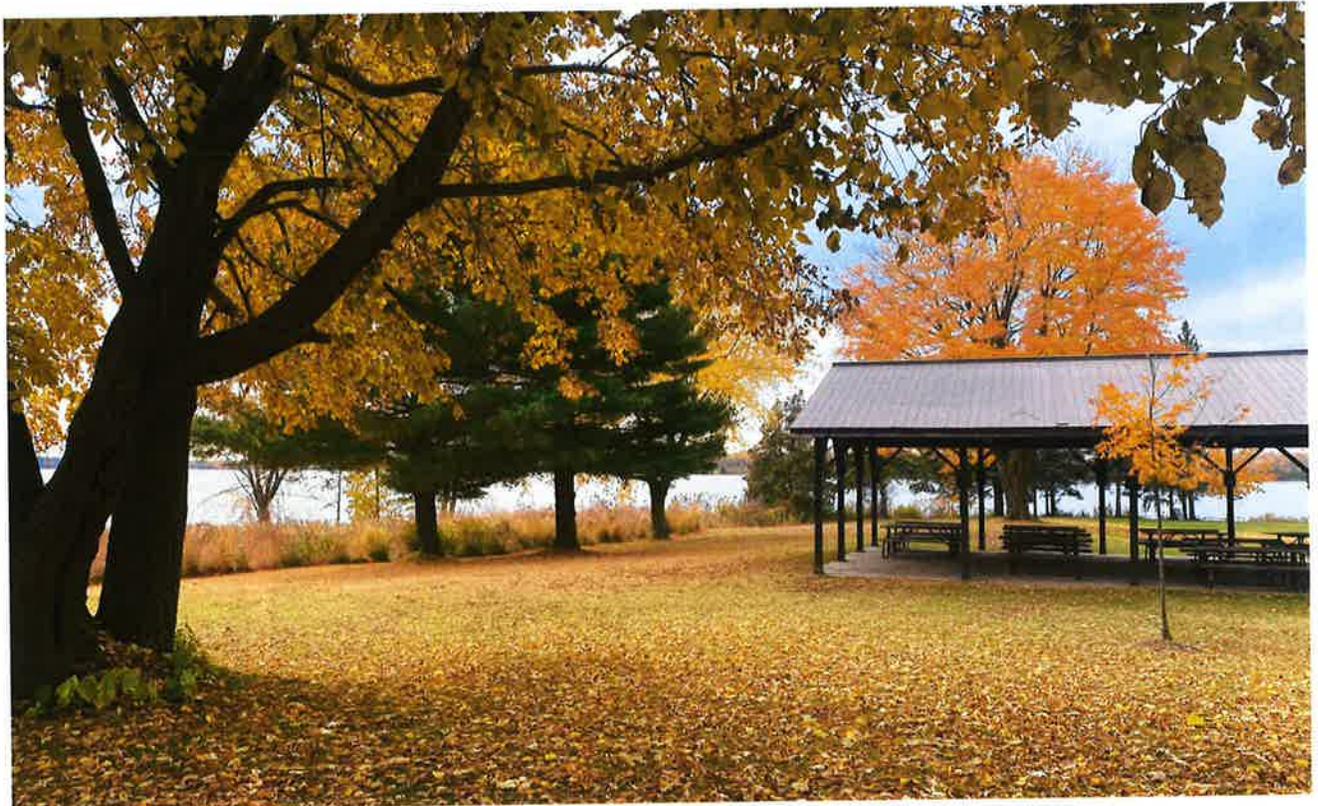


Figure 12: Mature shade trees

The west side of the park contains a rewilding area/activity archipelago established in 2016. The intent of the rewilding area was to manage stormwater runoff, include a naturalized trail for Trailer Park users to meander through, and discourage nesting spaces for geese.

Through site observation and discussion with municipal staff, it was found that the rewilding area/activity archipelago is unmaintained and overgrown, and ultimately unsuccessful in achieving the goal of preventing geese nesting and occupation along the shoreline. The diversity of plant species, illustrated in the 2016 Plan in **Figure 13**, is no longer visible. There are opportunities to remove the activity archipelago and reimagine it as an alternative use.

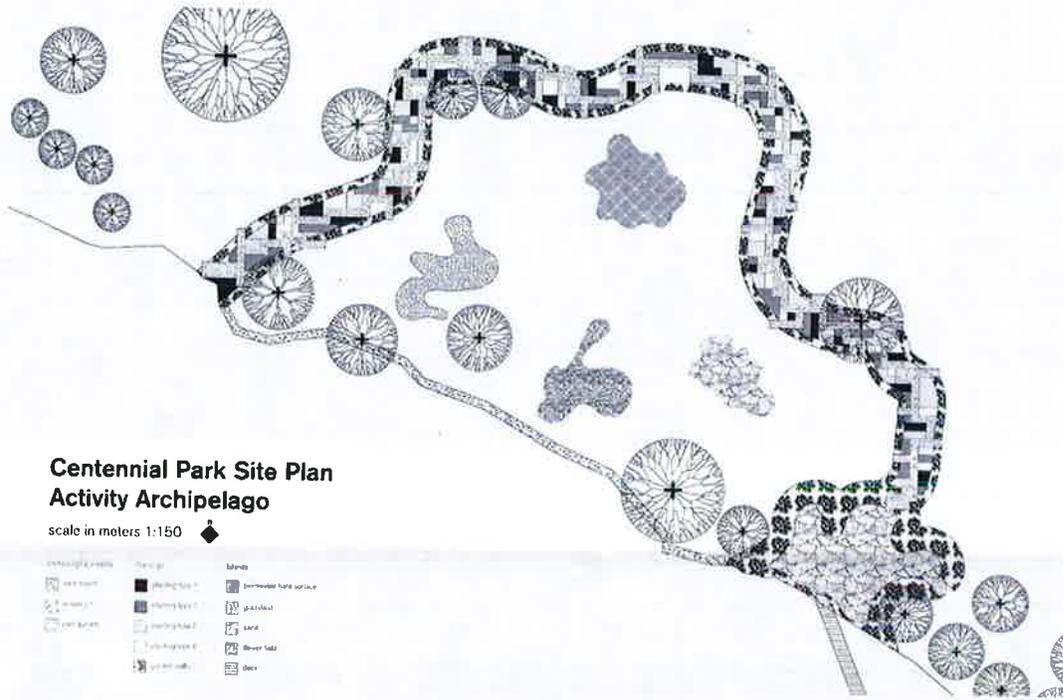


Figure 13: 2016 Rewilding Area/Activity Archipelago Plan



Figure 14: Rewilding Area/Activity Archipelago planting observed in 2023 site visit

3.4.2 Environmental Features

The subject site is partially bordered by wetlands. Through site visit observations, the wetlands are made up primarily of cattails and marshy conditions.

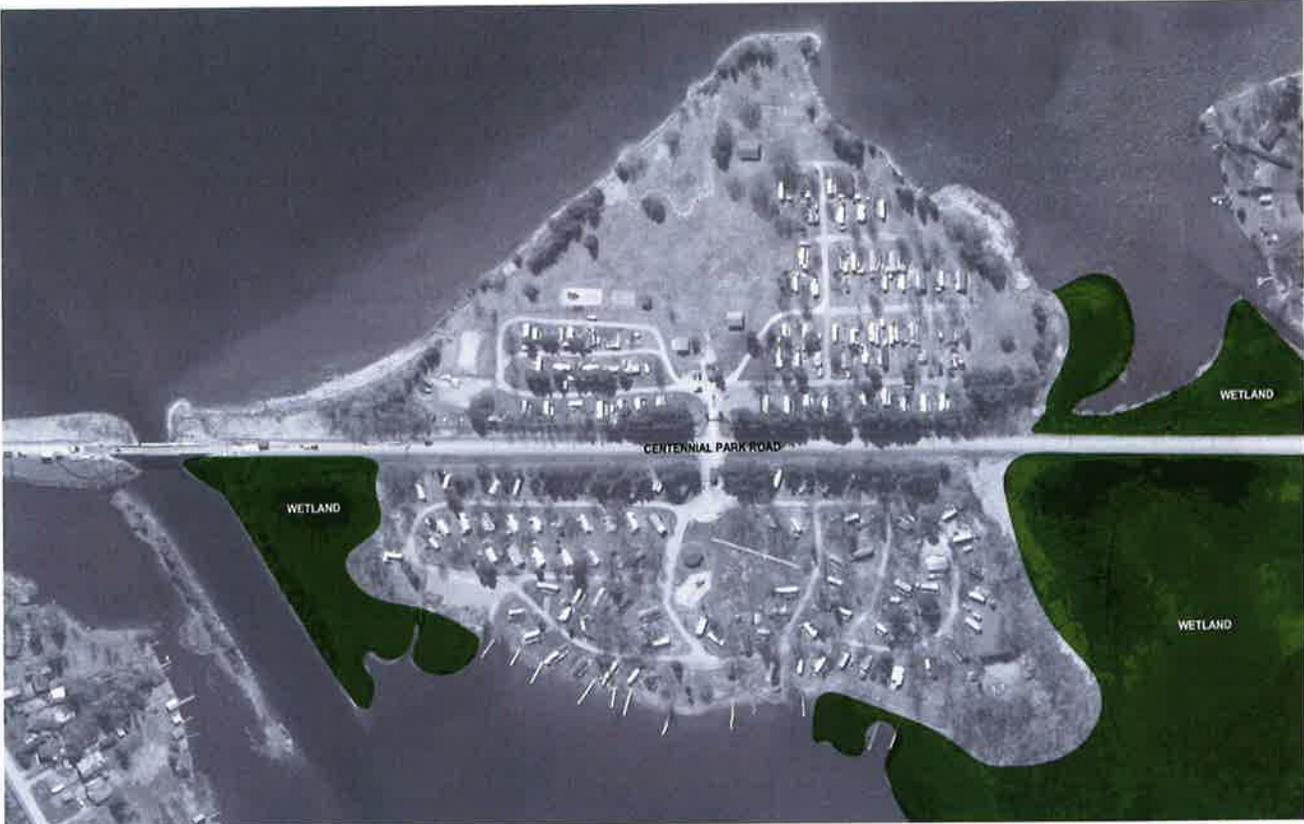


Figure 15: Map showing surrounding wetlands



Figure 16: Image of wetland vegetation

3.4.3 Park Access

Centennial Trailer Park is accessed through entrances located along Centennial Park Road, or via boat access. The vehicular access points are located centrally to the park to the east and west sides of the park. Trailer Park users must enter through gated entrances on either side of the road with key cards.

Vehicles enter the park through an automated gate on the west side where the main office is or on the east side where an existing structure is no longer used. As noted above, key cards are required to raise the gate and enter the park. Visitors are to report to the main office and pay for a parking pass. The configuration and location of only one office on the west side can be problematic for access and proper security for cars entering the site.

It is important to note that given there are different amenities on each side of the park, residents must cross Centennial Park Road to experience all amenities offered in the park.

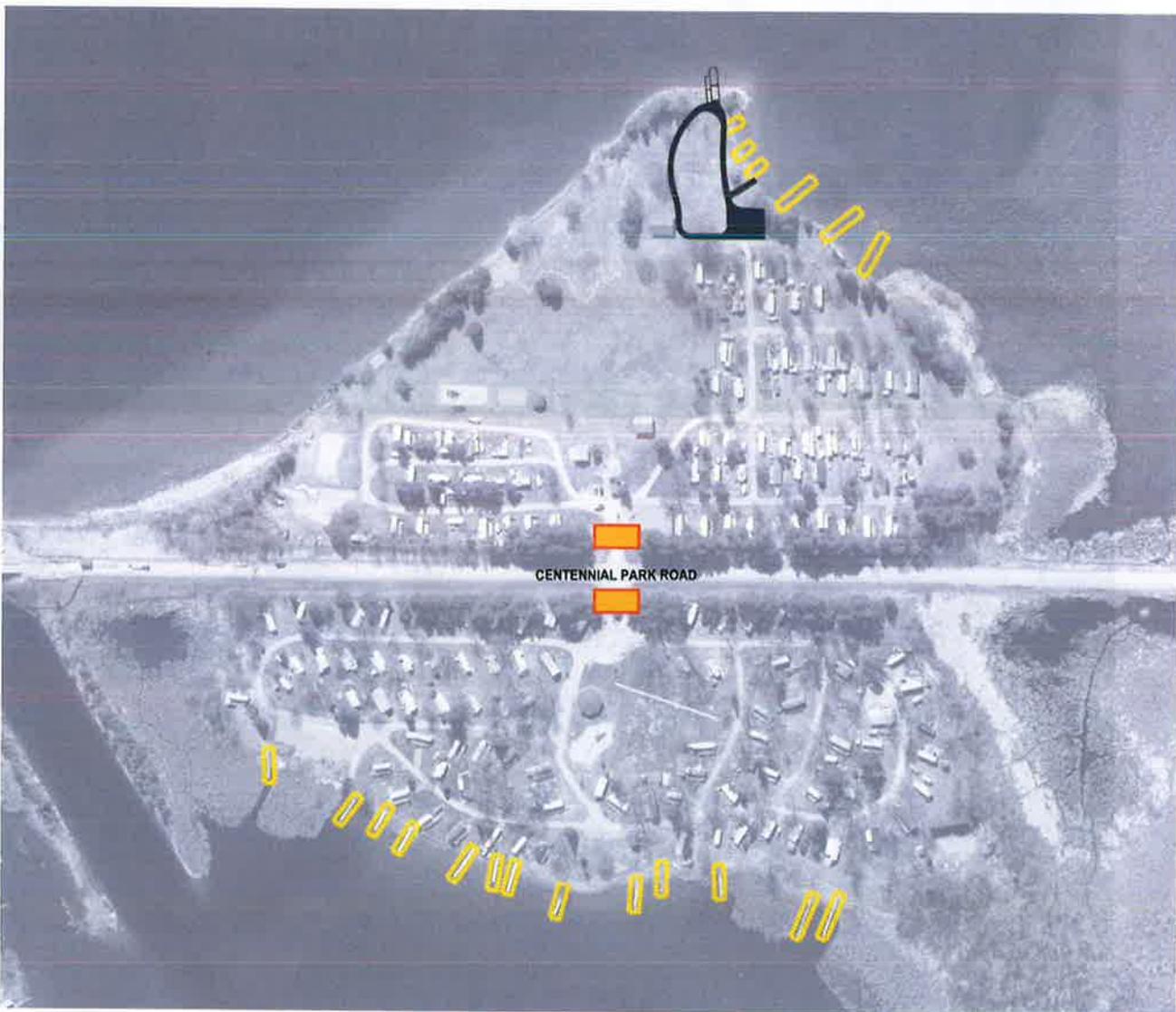


Figure 17: Centennial Trailer Park entrance points and dock areas



Figure 18: Western check in gate

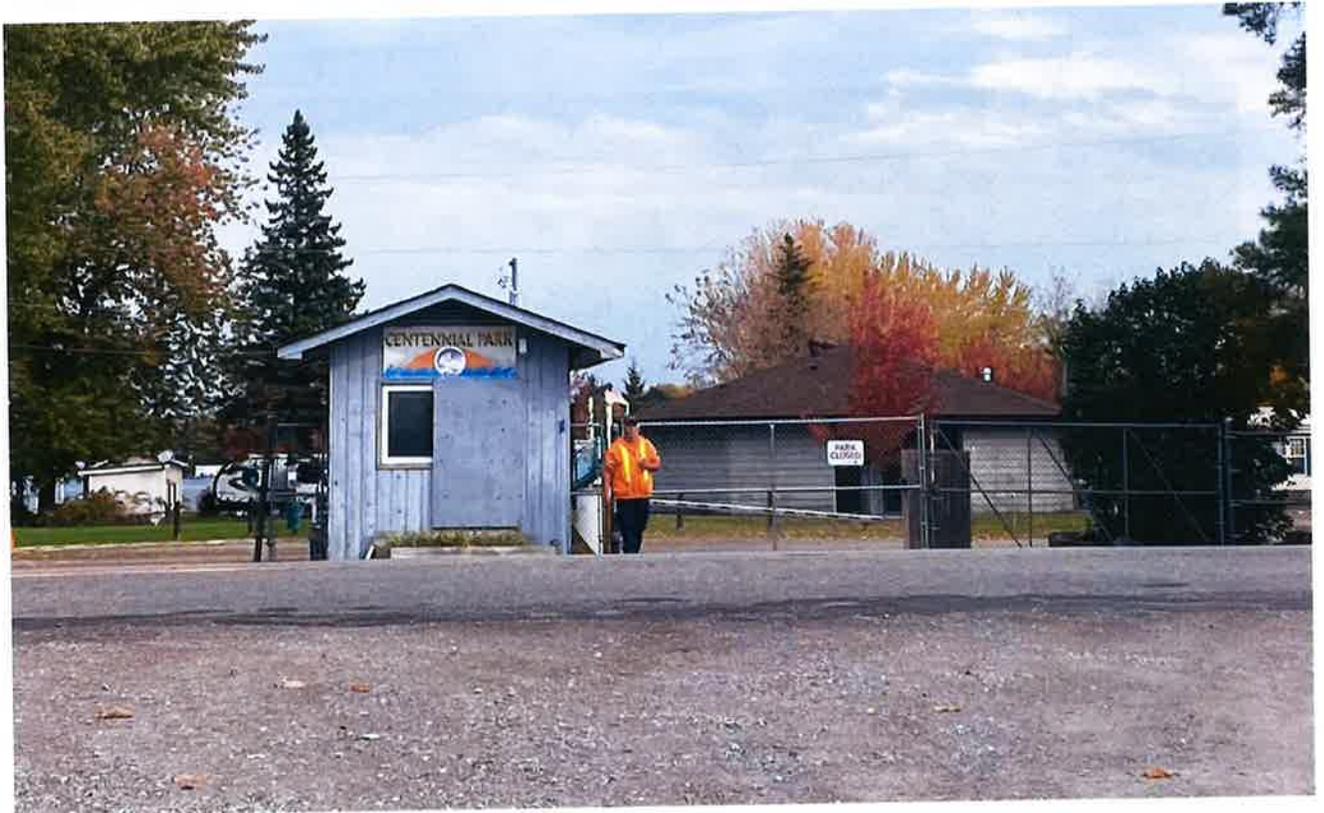


Figure 19: Eastern check in gate

3.4.4 Park Edges and Fencing

The park is bounded by Canal Lake along its external edges, with road access only provided along one entrance point along Centennial Park Road. Further, the park edges along both sides of Centennial Park Road are lined with trees and chain link fences, limiting access into the park to the gated entrance only.



Figure 20: Eastern shoreline adjacent to beach



Figure 21: Eastern gate access showing chain link fences and the tree lined road

3.4.5 Parking

Park residents are typically permitted to park one vehicle on their respective lot. Most lot sizes do not have room for additional cars. The current layout of the park has limited space for additional parking areas. The majority of visitor or additional parking spaces are provided on the western portion of the park, as illustrated in [Figure 23](#). The western portion of the park includes overflow/visitor parking behind the main office, a staff parking area, and a boat storage area. On the east side there is some parking available at the entrance, adjacent to the washroom and the existing boat launch area.

Parking lot areas are not clearly defined through ground markings or signage. The boat storage area is informal and underutilized – the space is currently occupied by several abandoned boats.

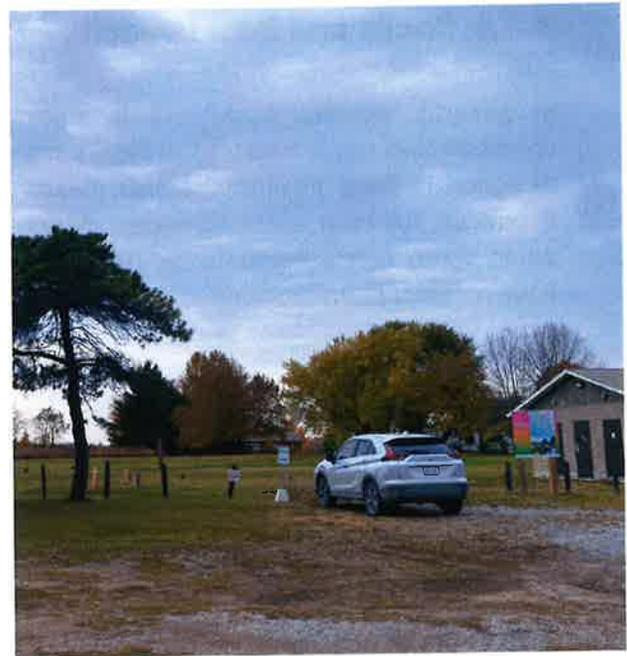


Figure 22: Existing Overflow Parking Lot

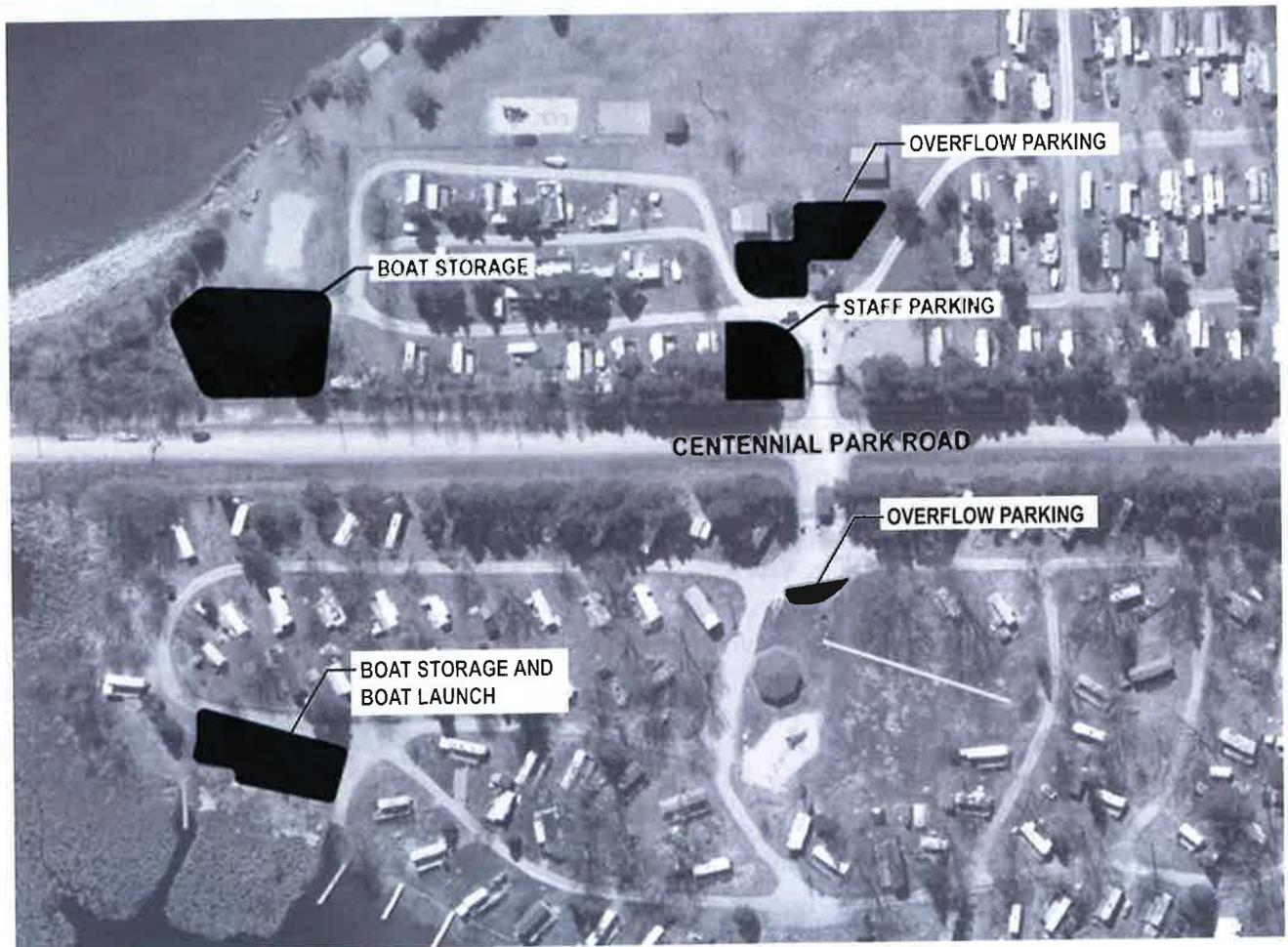


Figure 23: Existing Parking Areas

3.4.6 Docks and Boat Launch

In general, existing docks are in poor condition and require upgrades. Docks are designed in fixed positions, which makes it difficult for boat users to access docks when water levels fluctuate. Some docks have recently been replaced.

There is an existing boat launch on the east side of the park which is difficult to access due to lower water levels and being surrounded by wetland vegetation. A new boat launch has recently been completed on the west side of the park (Figure 24).



Figure 24: Boat Launch on west side of the park

3.4.7 Wayfinding Signage

There is limited wayfinding signage throughout Centennial Trailer Park. Each trailer lot is numbered with a small green sign on the lot. Amenity areas or uses, are not identified with signage. Neither the park's western nor eastern entrance indicates where outdoor amenity features are located; the range; and numbered site locations. There are no street signs.

3.4.8 Indoor and Outdoor Amenities

Amenities and buildings on the western side include the main office, picnic shelter, beach area, volleyball pit, baseball diamond, basketball court, volleyball court, horseshoe pit, and children's playground. These amenities are in close proximity to each other, and are situated just north of the main office.

The western portion of the park also includes a recreation building, which is informally used as a games room during bad weather. The recreation building can also be used as an informal lunchroom by municipal staff. The recreation building,



Figure 25: Recreation Building

shown in **Figure 25** includes tables and chairs, and some games.

The eastern side of the park contains fewer outdoor amenity features. The eastern side contains a children's playground, central to the area, and a seating area along the edge of Canal Lake.

Other amenities on the eastern side of the park include a comfort station with washrooms and showers, and a coin operated laundry room.



Figure 26: Outdoor amenity features located on the western side of the park



Figure 27: Children's playground on the eastern side of the park, adjacent to the septic bed



Figure 28: Seating area along Canal Lake

3.4.9 Existing Trailer Lots

An analysis of the site survey identified several trailer lots that are either irregularly shaped, or larger than average lot size (Figure 29). Lot size consistency is important to provide equitable trailer lot size for all park residents. We recommend splitting larger lots into smaller lots or charging a premium rental cost for larger than average lots.



Figure 29: Larger than average Trailer lots



4 Community Engagement Overview

Engagement has been an important part of the CTPMP process and has been an ongoing activity. This section summarizes the public and stakeholder engagement that has occurred for CTPMP study.

4.1 Phase 1 Engagement

4.1.1 Online Questionnaire

An online questionnaire was publicly circulated in November 2023 to gather feedback and input from both the residents and the public to help prepare the CTPMP. The questionnaire closed on December 15, 2023, which gathered 69 responses. It is worth noting, that 63 respondents indicated they visited or stayed at Centennial Trailer Park in the past whereas 6 have not. The 6 respondents concluded the survey after question 6. A copy of the questionnaire results can be found in [Appendix D](#).

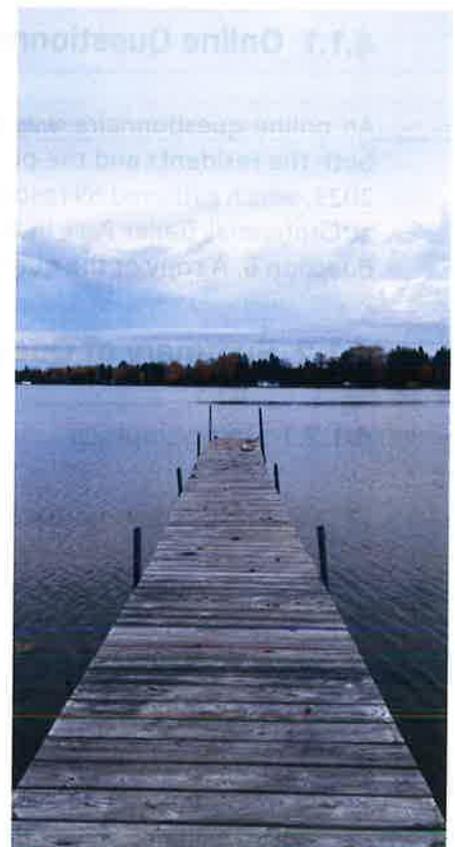
4.1.2 Summary of Questionnaire Results

4.1.2.1 Demographics

- Most respondent households are made up of adults between the ages of 19 to 64.
- Most respondents have visited or stayed at Centennial Trailer Park before.
- All respondents were seasonal trailer park users, and most have either been an occupant for more than 10 years or between 1 to 4 years.
- Most trailers contain 2 to 4 people.
- Most occupants stay at the trailer park mostly for the weekend.

4.1.2.2 Facilities

- Comfort stations (e.g., showers, washroom, and laundry facilities), playgrounds, picnic shelter, boat docking, and beach/swimming areas were the most popular amenities.
- Sustainability and low impact development features were “somewhat important” to most people followed by “important”, “not important”, and then “very important”.
- Overall cleanliness and maintenance, the boat launch, and the beach area were common themes of improvement indicated by respondents.
- Some respondents indicated they would participate in programs offered by park staff while others had no interest.
- Most respondents felt safe while in the park.
- Most respondents described the cleanliness of the on-site washrooms as “acceptable”.
- The overall condition of the beach (e.g., water quality, sand quality, accessibility, and size) is in fair to good condition.
- Common critiques regarding the beach include need for more seating areas, cleanliness of the sand, larger area, and weed overgrowth.
- About 50% of respondents rent the dock slip and half of them said the dock conditions are good.
- Common critiques regarding the dock include safety concerns, lack of maintenance, and abundance of goose droppings.
- Comments about park staff were generally positive and common themes include friendliness, helpful, and polite.



4.1.3 Stakeholder Consultation

On December 15, 2023, a virtual meeting with various stakeholders took place. Key staff from Parks and Recreation, Engineering, the consulting team, and service providers (Jackson Water) participated in a discussion regarding park opportunities and challenges. Input was provided into issues regarding septic, water, parking, operations. This input was used to help develop two concepts to inform the CTPMP.

4.2 Phase 2 Engagement

4.2.1 Virtual Open House

The consultant team and municipal staff hosted a virtual Open House on January 24th, 2024. The purpose of the Open House was to provide a summary of the work that was completed to date, present the draft CTPMP to attendees, and gain feedback and recommendations from the public as to how the Plan could be revised. Approximately 36 trailer park residents and members of the public attended the Open House.

Overall, attendees reacted positively to the Draft CTPMP. Some attendees emphasized the need to upgrade the electrical service. Staff commented that electric upgrades are one of the items being considered as part of the Master Plan. Another attendee highlighted the issue of goose droppings present throughout the park and requested solutions for resolving the issue. Lastly, an attendee questioned reducing the size of larger lots into smaller lots. Staff clarified that larger trailer lots may be reduced and made consistent with the size of other lots in the park, and that this process would happen over the long term.

Various attendees suggested the following additional amenities:

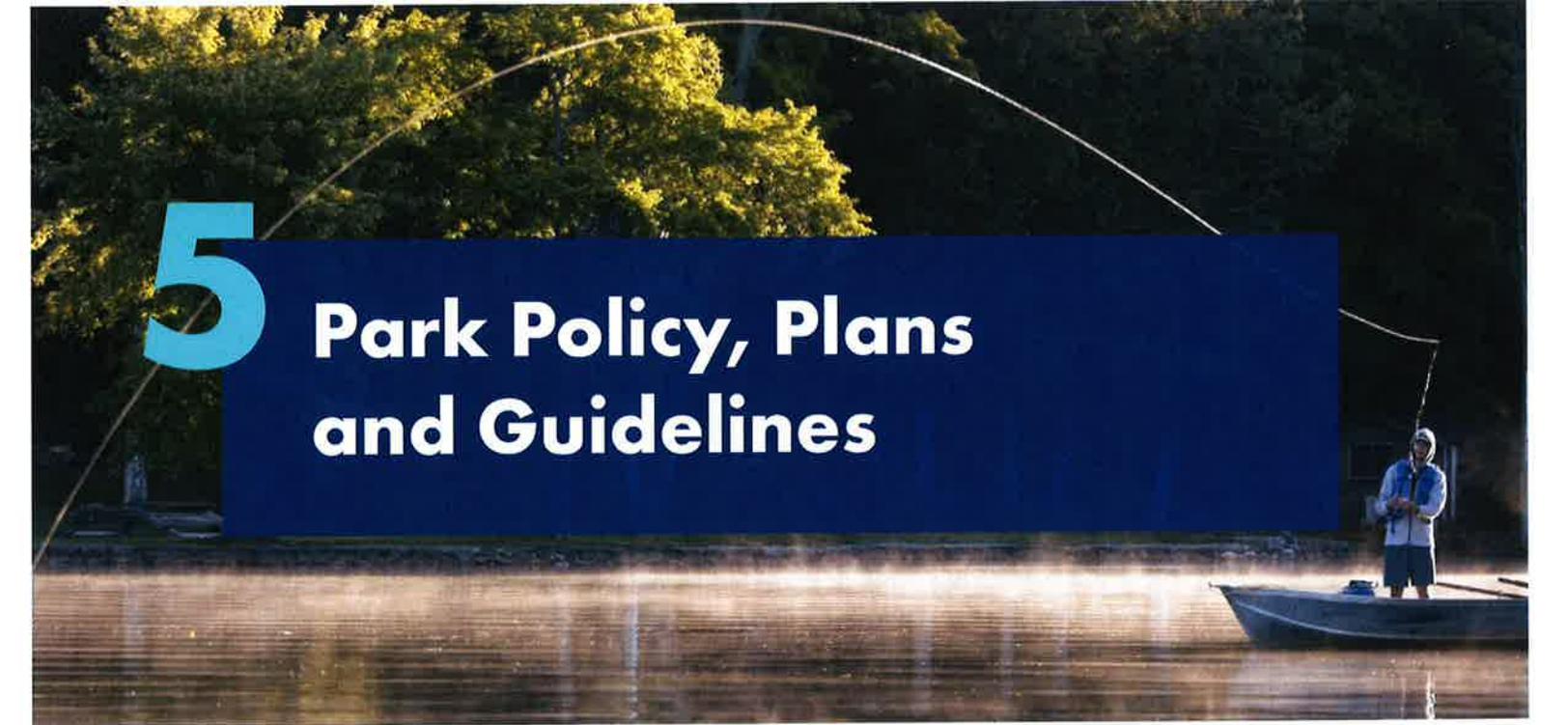
- A fish hut and freezer to clean and store fish.
- Children's splash pad near the beach.
- Off leash dog area.
- Swimming pool; and
- WIFI throughout the park.



4.2.2 Results of Engagement

Throughout the engagement process, several suggested amenities were identified for inclusion in the CTPMP. The table below outlines how the suggested amenities have been considered, and either included in the CTPMP or why they have not been included:

Recommended Amenity	Response for CTPMP
Off Leash Dog Area	An off-leash dog area has been suggested for inclusion on the west side of the park.
Fish Hut	A formalized and built-up fish hut as suggested would require water, hydro, an additional structure, and additional maintenance costs. A freezer is currently available to serve the purpose needed. Given the requirements, a fish hut is not recommended for inclusion in the CTPMP now.
Swimming Pool	Due to high water table, high cost for installation, ongoing maintenance costs and proximity to beach and Canal Lake a swimming pool is not recommended.
Children's Splash Pad	For the same reasons as a swimming pool a children's splash pad is not recommended.
WIFI throughout Park	WIFI is available close to the Main Office. There are no plans to expand coverage throughout the park due to cost and the inability to secure WIFI at each site.



5

Park Policy, Plans and Guidelines

5.1 Official Plan Policies and Strategic Plans

The following provides an overview of the City of Kawartha Lakes Strategic Plan, Official Plan, and the Tourism Destination Development Plan. Summaries of each document, and their relevance to the park are outlined below.

5.1.1 Kawartha Lakes Strategic Plan

The City of Kawartha Lakes Strategic Plan outlines the vision, mission, and guiding principles, to ensure the continued growth and development of the municipality.

The Strategic Plan sets out four Strategic Priority Areas to achieve the City's vision, mission, and guiding principles. The Strategic Priority Areas include:

- Healthy Environment.
- Exceptional Quality of Life.
- Vibrant and Growing Economy; and
- Good Government.

The City of Kawartha Lakes has identified the need for a Master Plan for Centennial Trailer Park to guide the management of the park for future rehabilitation, replacement and/or expansion of the park, and its associated facilities over the next 20 years. The CTPMP establishes a vision and addresses environmental, social, and economic concerns, ensuring the park can operate sustainably over the long-term.

The CTMP will achieve the goals of the Strategic Plan to ensure the park and its facilities expands sustainably over the next 20 years, to improve the health and well-being of users, and that it will continue to serve as a popular destination seasonal campground for all users. The CTPMP will also attract more trailer park visitors, and contribute to the local economy, while supporting community infrastructure such as the park.

5.1.2 Official Plan

The City of Kawartha Lakes Official plan came into effect on June 8th, 2012, and contained policies, goals, and objectives to guide growth, and development in the City of Kawartha Lakes.

The subject lands are currently designated as Waterfront, shown on Schedule A-4 of the City’s Official Plan. The purpose of the Waterfront designation is to permit seasonal and limited permitted residential development along the waterfront. This designation recognizes the established character of the low density seasonal and permanent residential development. This designation is intended to protect surface water quality while maintaining and improving shorelines and adjacent areas.

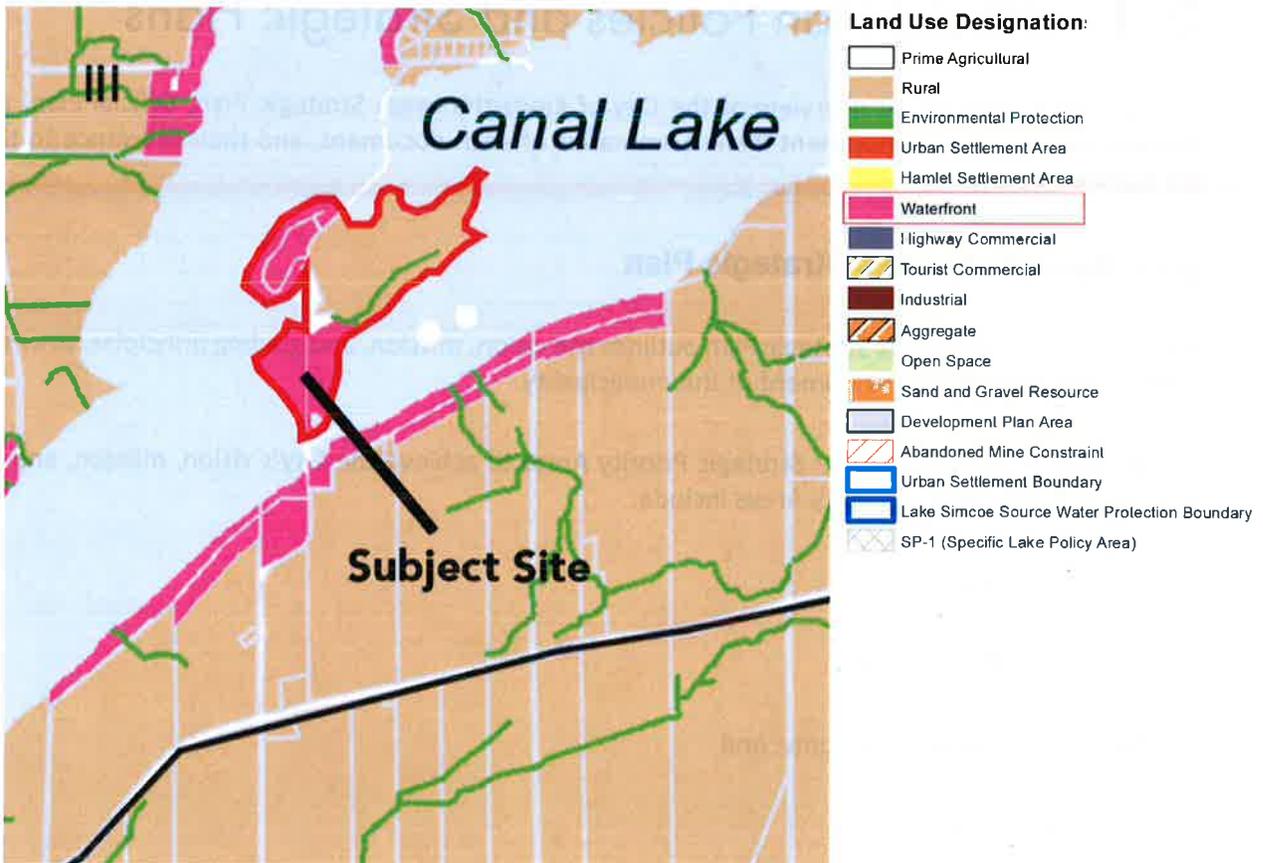


Figure 30: Official Plan Designations - Schedule A-4

5.1.3 2020 – 2025 Tourism Destination Development Plan (Draft)

The Destination Development Plan guides the effort of municipal staff and tourism stakeholders in the City to build upon the sector’s contributions to the local economy. It identifies assets with the most potential to differentiate Kawartha Lakes from other competing destinations, and scores the assets’ draw, duration and off-season potential either low, medium, or high.

Key themes that informed the development of the Destination Development Plan include the following:

- Culture
- Food
- Downtowns
- Incentives
- Itineraries
- Visiting friends and relatives
- Market readiness
- Sector development; and
- Environment sustainability.

Strategic Priorities were developed for the Destination Development Plan to ensure Kawartha Lakes thrives as a tourism destination and include asset development, sustainability, and tourism development capacity. Destination development should be focused in four areas: active outdoor experiences, culinary, culture and accommodation.

The Destination Development Plan helps to inform the development of the CTPMP including the vision, guiding principles and concepts for the master plan based on the key themes and strategic priorities.

5.1.4 Standard Operating Procedures (SOP)

The City has a set of SOPs for various procedures, conduct etc. within the park. Parks and recreation staff are undertaking an exercise to review its SOPs some of which may apply to the park.. A review of other trailer parks did not reveal any precedent information that would be helpful in informing any updates to the existing SOPs. Currently the documents include Site Rentals, Sheds, Code of Conduct, and Pump Out. A decision regarding management of the park will need to be made to inform the update to these policies. If the City continues operations of the park, then a review and update to the SOPs is recommended. If the City decides to have an outside party manage the park, that company will need to provide its’ own SOPs.



The City of Kawartha Lakes has a number of park design standards for tree planting, tree species and selection, fencing, and accessible design that will inform changes to the park to implement the CTPMP. These standards are attached in **Appendix F** and can be found on the municipality's [website](#).

Refer to the City's [Trails Master Plan Update](#), as well as **Appendix G** for standards related to trail design and signage.

Refer to the City's [Facility Accessibility Design Standards \(FADS\)](#) for detailed accessibility requirements for benches, picnic tables, landscaping, lighting, exterior materials and finishes, and more.

Appendix F includes park design standards to be implemented to ensure consistency between existing City standards, consistency between street furniture elements such as benches and waste receptacles and establish a memorable and unique design style that will distinguish Centennial Trailer Park from other parks in Kawartha Lakes.



7.1 Vision

The CTPMP sets the “Vision for the Future” operation of the Centennial Trailer Park. It ensures facilities, and amenities, are adequate for the needs of the trailer park community. The vision of the CTPMP is built upon public, and stakeholder consultation, to address environmental, social, and economic concerns, and to ensure that the park, can operate sustainably over the long-term.

7.2 Goals

To ensure that current and future trends of trailer park utilization are reflected in the park’s long-term success and sustainability of Centennial Trailer Park. This will be achieved through the rehabilitation, replacement or expansion of infrastructure, services, amenities and/or site development.

The CTPMP will achieve the following goals:

- Provide adequate parking for residents and guests, effectively manage peak parking times throughout the season;
- Confirm lot equity or require premiums for large and waterfront lots;
- Improve and provide safer pedestrian access to both sides of the park;
- Ensure long-term infrastructure is to a municipally-approved standard;
- Update amenities and park features;
- Evaluate and improve current fees for services – parking, boat storage, waste, water, hydro, taxes; and
- Review and update SOP based on management format.

7.3 The Master Plan

The following presents a breakdown of the proposed Master Plan with descriptions for each new or revitalized feature and aligns with the park recommendations illustrated throughout this chapter. **Section 7.4** outlines additional recommendations as well as proposed timing and cost estimates for infrastructure, site improvements, fee structure, and financing.



Figure 31: Centennial Trailer Park Master Plan

7.3.1 Site Access – (Main Gate/Secure Check-In/Visitor Parking)

The CTPMP reimagines the entrance to the park on both sides of Centennial Park Road to include a new archway, entrance feature, or signage for the west and east side of the park. The entrances will include new visitor and staff parking outside the newly delineated access with automated gates and a centralized gate house on the west side.

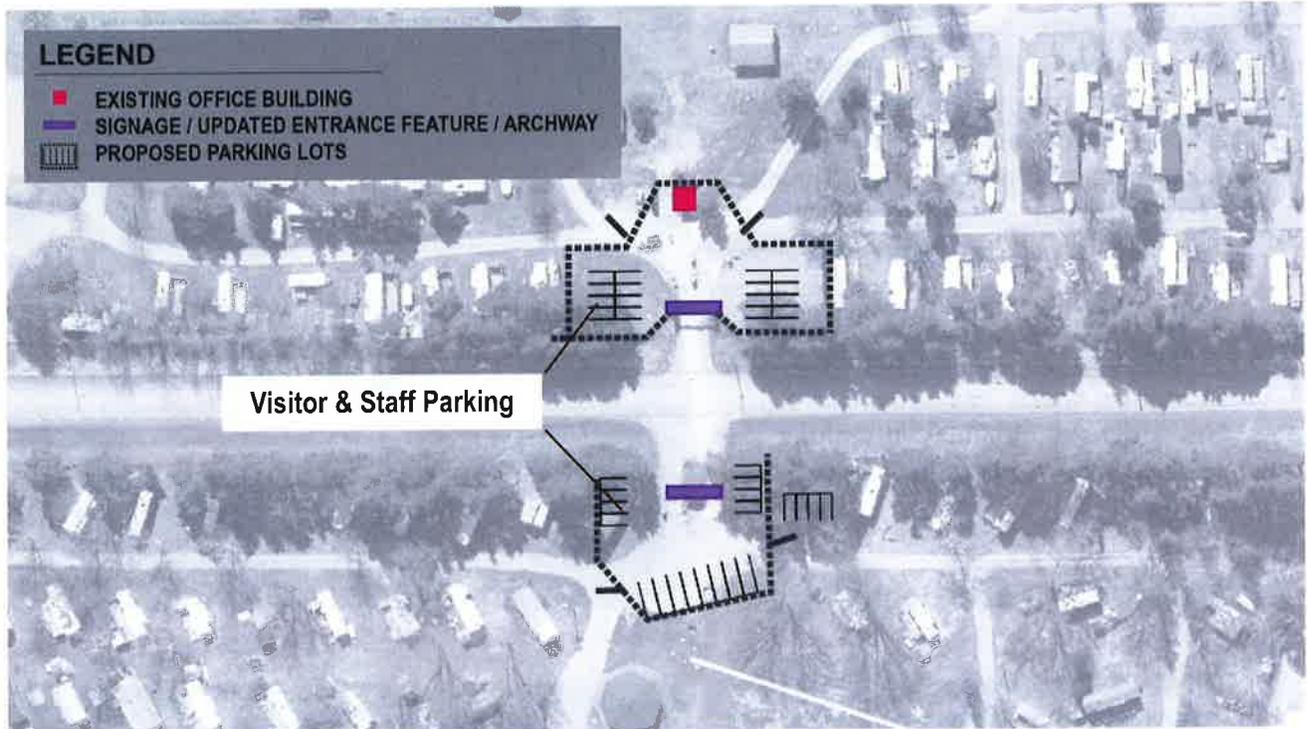


Figure 32: Site Access

7.3.2 Sense of Arrival and Pedestrian Safety

The west and east side of the park are bisected by Centennial Park Road. This requires residents to cross the road to access different amenities on either side of the park. In addition to the updated entry feature and updated main-secure check-in, the Master Plan will include sense of arrival pavement art, as well as cross walks between the two entrances on the east and west side of the park. The sense of arrival art will create a sense of place and the pedestrian crosswalks will indicate safe spaces for pedestrians to move to cross the road and help identify to drivers to be aware of pedestrians. Pedestrian safety and future road improvements can be completed at the same time.

7.3.3 Lot Reconfigurations / New Lots

As part of the existing site review, it was identified that there are several existing lots that are quite large, irregular in shape or have encumbrances such as retaining walls. The CTPMP identifies lots to be resized to a minimum of 11 metres to accommodate the length of an average trailer, and reconfigured where existing trailer lots are excessively large. Reconfiguration of some trailer lots, identified in pink on **Figure 33**, allows more space for parking lots and new trailer lots shown in green below. The CTPMP also allows for potential new short-term trailer lots shown in yellow and proposes premium lots along the eastern waterfront with higher rental charges.

7.3.4 Centralized Docks

To address the issues identified during the on-site walk through and discussion with staff and to improve maintenance and water levels, a centralized floating docking system, one per side, is recommended to replace the existing docks.

The floating dock on the west side may extend from the existing boat launch area to create one cohesive area for boat access.

The floating dock on the east side will offer centralized dock access from the small open space central to the proposed premium lots to replace the individual docks along the entire eastern waterfront. The centralized dock will resolve potential privacy issues, allow ease of access, help with the low water levels and provide equal access for all trailer park residents without having to cross private lots.

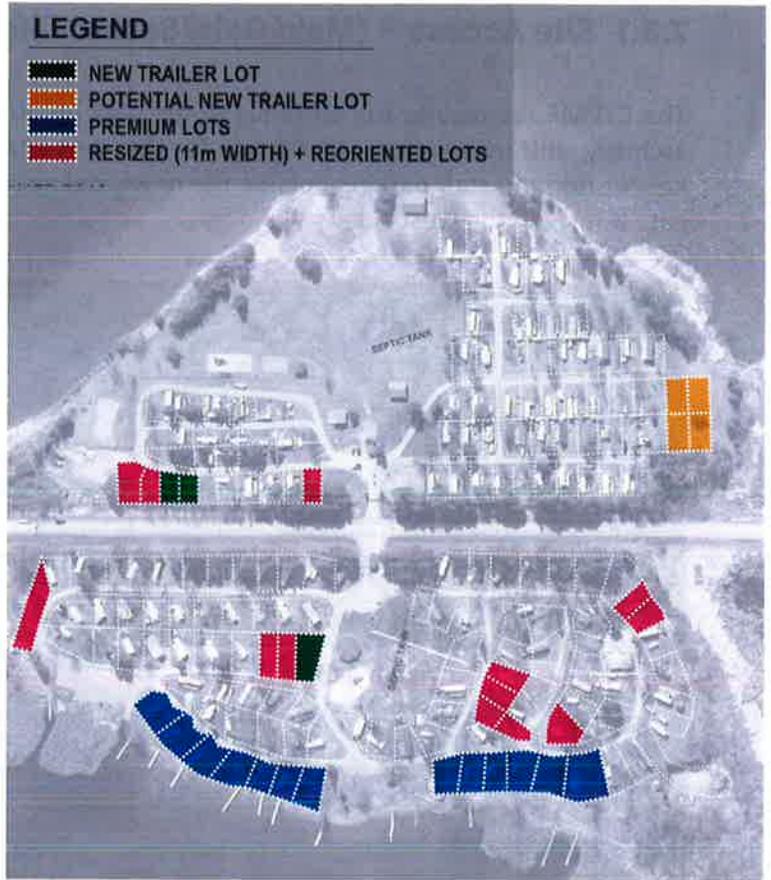


Figure 33: New trailer lots, premium lots, and resized lots



Figure 34: New centralized docks, docks to be phased out, and location of existing boat launch

7.3.5 Parks, Open Space, Trails, and Wayfinding

The CTPMP identifies several new improvements to amenities, spaces for play, and trails. The west side of the park will include an expanded beach with two armour stone retaining walls to stabilize the shoreline and create multiple activity spaces. The beach will include more seating areas, will be bordered by trees to increase shade, and will include two docks that are connected by a low-profile floating deck swim platform.

The large baseball diamond will be removed to accommodate an open play area on the west side, which will include a nine hole disc golf course, an off-leash dog park, new tree planting, new seating areas, and bird and bat boxes. The open play area will be bisected by looping trails that extend along the western waterfront, indicated with trail markers and wayfinding signage at the trailhead (Refer to [Appendix F](#) for Park Design Standards for furniture and [Appendix G](#) for trail signage). Existing playgrounds and multi-use courts will be refreshed.

The east side of the park will maintain the existing playground and open play area along the waterfront. New trees will be added throughout the eastern side to frame the waterfront and new looping trails. One trailer lot will be removed and relocated to accommodate trail entrance and exit to the centralized playground.

Edges of trailer lots and open play areas will be delineated with naturalized planting to increase biodiversity and reinforce property lines.



Figure 35: Parks, areas of naturalization, trails and wayfinding plan

7.3.6 Park Lighting

Currently there is no “public” lighting existing on the site. As a way to improve a sense of community, increase safety and tie in with the overall electrical improvements, pedestrian level lighting is conceptually shown on **Figure 36** is proposed. Refer to **Appendix F** for standard details of pedestrian level lighting.

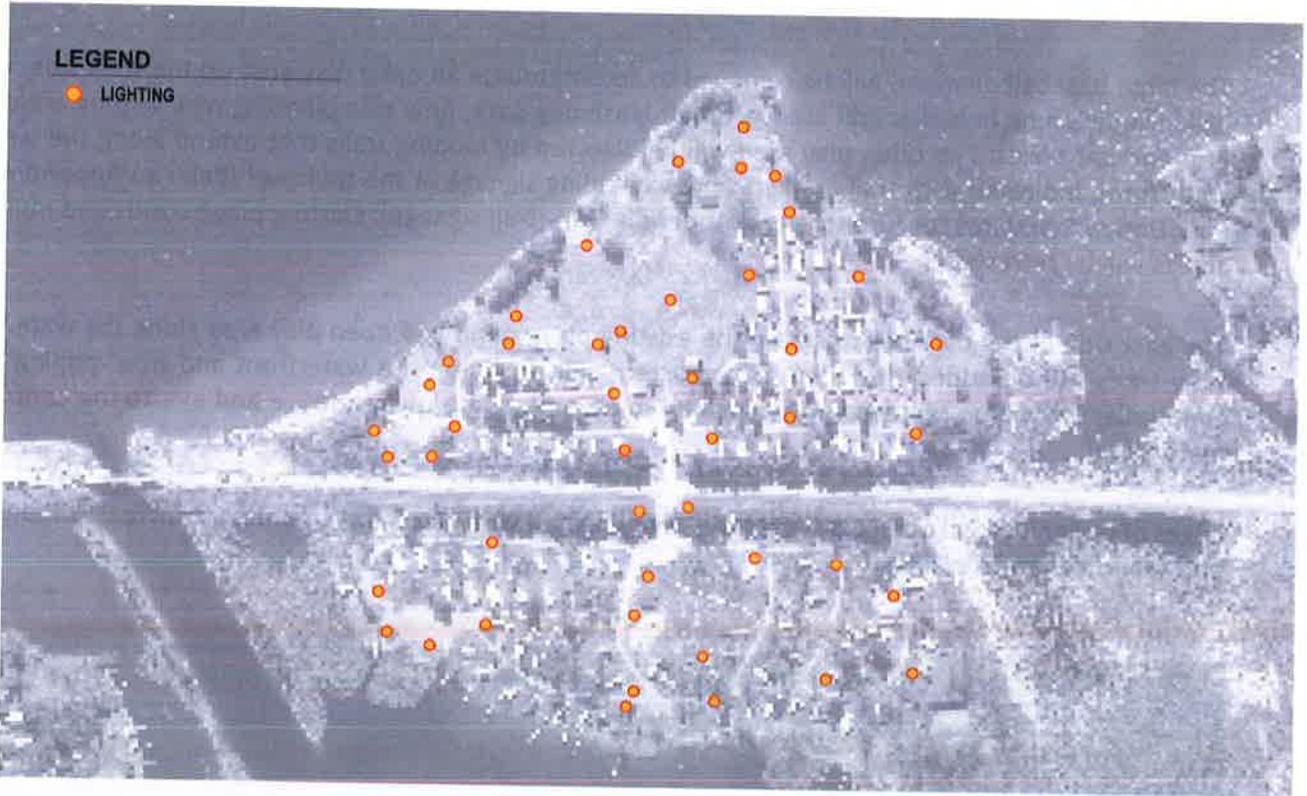


Figure 36: Proposed lighting plan

7.4 Recommendations

A fulsome review of the current site function, maintenance, infrastructure, amenities and financial matters has resulted in a number of short-, medium- and long-term implementation recommendations.

Recommendation Item	Rationale and Recommendations	Timing Short Term: 0 - 3 yrs. (2024 – 2026) Medium Term: 4 - 10 yrs. (2027 – 2034) Long Term: 10 – 20 yrs. (2035 - 2043)	Cost Estimate*
1.0 Infrastructure			
1.1	Water Treatment	N/A	N/A
1.2	Water Distribution		
1.3	Water Demand		
<p>Based on the as-builts provided, it is estimated that the water system on the east half of the park was constructed around 1979 while the water system on the west half of the park was an extension of the east system and was constructed around 1987. The water system is supplied by a groundwater well located on the east side of the east portion of the park. A full analysis is provided in GM BluePlan’s Report. A contractor employed by the City tests water quality regularly and completes maintenance for the water system throughout the season. Regular testing has not identified any issues with the current system. The option to loop dead-end water mains was considered.</p> <p>Water treatment, distribution and demand were analyzed against the possibility of additional lots being added to the park and the system. While it was identified that there are some days in 2023 where isolated capacity exceedances were experienced, it is not recommended that these outliers should not form the basis for a water system capacity expansion.</p> <p>Water Treatment Recommendation: No expansion to the water system is recommended at this time.</p> <p>Water Distribution Recommendation: Capital upgrades as a function of increased demand are not recommended. It was determined the potential advantages of a loop dead-end system were not worth the up-front capital costs given the regular water testing results. If in the future if water quality testing shows stagnation consideration should be given to improving the system through looping dead-end feeds.</p> <p>Water Demand: It is recommended that gate-controlled entry to the park should be enforced to ensure that the park is not over-populated which could lead to water system capacity issues</p>			

*NOTE: Cost estimate values are based on 2024 rates

Recommendation Item	Rationale and Recommendations	Timing Short Term: 0 - 3 yrs. (2024 – 2026) Medium Term: 4 - 10 yrs. (2027 – 2034) Long Term: 10 – 20 yrs. (2035 - 2043)	Cost Estimate*
1.4	<p>The septic system for the east half of the park was installed in 1978 and the west was installed around 1987. No major improvements to the septic system have been recorded since their installation. Both systems, based on the east being 46 years old and the west 37 years old are beyond a typical service life of a septic system.</p> <p>Wastewater Treatment Recommendation: A septic evaluation should be completed to confirm the remaining service life and next steps for replacement. Detailed recommendations of requirements are included in GM BluePlan’s report attached as Appendix E.</p>	Short Term	Evaluation \$16,000 Each System: \$310,000
1.5	<p>The existing wastewater collection system is limited to sewers collecting sewage from 51 lots on the west half of the park with the remaining 122 lots requiring pump-out operations currently done by City staff. The option to provide localized collection systems for the lots currently without gravity sewer connections was explored. This option provides an upgraded level of service to the park residents and improved health and safety for staff, given pump-out operations would be limited to localized facilities with improved access. The localized systems will include centralized holding tanks that are connected to sewers extended along the gravel driveways with sewage service connections provided to each lot.</p> <p>Wastewater Collection Recommendation: Provide localized collection systems for lots currently without gravity sewer connections. Also, that float sensors be added to the holding tanks to notify staff when sewage levels are reaching the limit therefore minimizing the potential for spills.</p>	Long Term	Seven (7) collection systems: \$3,155,000
1.6	<p>Currently there is a 30 amp electrical service to each lot. However, park policy requires new trailers entering the park to be newer than 10 years old. Newer trailers typically have higher electrical demand appliances which is causing maintenance issues. It was noted that repairs to the existing electrical system have been required multiple times in recent years based on newer trailers requiring more power than the current electrical system could provide.</p> <p>Electrical Infrastructure Recommendation: Replace the existing 30 amp infrastructure with a 50 amp system, or with a 30 amp system that can be upgraded to 50 amp over the long term. While capital costs will be substantial, it will reduce maintenance costs and service calls required to maintain the existing 30 amp system.</p>	Short Term, phase in 30 amp to 50 amp service	\$1,600,000

*NOTE: Cost estimate values are based on 2024 rates

Recommendation Item	Rationale and Recommendations	Timing Short Term: 0 - 3 yrs. (2024 – 2026) Medium Term: 4 - 10 yrs. (2027 – 2034) Long Term: 10 – 20 yrs. (2035 - 2043)	Cost Estimate*
1.7	<p>Electrical Sub-metering</p> <p>Sub-metering, either on a per-lot basis or on an area-basis, provides the City the ability to alter their billing structure to a usage basis instead of the current system where the electrical utility bill is split equally amongst park residents. Sub-metering also has the potential to encourage park residents to limit electrical usage if a premium is associated with high usage.</p> <p>Sub-metering Recommendation: It is recommended to provide electrical submeters for all lots. The installation of submeters will allow accurate tracking of individual unit usage, allowing the City an improved understanding of the overall cost of utilities and the opportunity to identify where utility usage is higher.</p>	Short Term	Inc. within cost identified for Item 1.6
1.8	<p>Telecommunications</p> <p>WIFI is available in proximity to the main office with limited range. Additional free telecommunications is not provided to the residents. Residents do have the option of paying for telecommunications companies to install telecom infrastructure on an individual lot.</p> <p>Telecommunications Recommendation: It is recommended that the free WIFI in proximity to the office continues. Additional telecommunications infrastructure has not been recommended.</p>	N/A	N/A
1.9	<p>Green Infrastructure</p> <p>Also referred to as blue green infrastructure, these features help with meeting climate change goals such as efficient water use. Natural vegetation features, parkland, stormwater management, trees, permeable surfaces are all features that could be incorporated in more detailed plans for upgrades to the park. Several examples are included in GM BluePlan's report.</p> <p>Green Infrastructure Recommendation: Encourage and include blue- green infrastructure as part of future RFPs, designs and construction contracts.</p>	N/A	N/A

*NOTE: Cost estimate values are based on 2024 rates

Recommendation Item	Rationale and Recommendations	Timing		Cost Estimate*
		Short Term: 0 - 3 yrs. (2024 – 2026)	Medium Term: 4 - 10 yrs. (2027 – 2034)	
1.10	Road and Parking Refresh	Due to the viewed condition of the roads within the park, a repair and refresh of the existing roads within the park has been suggested. As well, additional new parking areas are proposed to address the visitor and additional car parking issues that were identified. New and expanded parking lot areas are proposed to provide spaces for boats and trailers, as well as visitors and additional resident vehicles.	Short Term: Road Refresh & re-surfacing of existing parking areas	\$125,000
		Road and Parking Infrastructure Recommendation: For new roadways and parking areas, a consultant should be retained to recommend a road design profile that will be suitable for the soil conditions and vehicle loadings. General road repairs are to be completed on an as needed basis.	New parking areas - Medium Term to Long Term	\$695,000
2.0 Site Improvements				
2.1	Site Access – (Main Gate, Secure Check-In and Visitor Parking)	Secured access can be tricky given the site is bisected. Currently there is no efficient centralized access for residents and guests or any delineated area for visitor parking that provides separation of visitors from residents.	Medium Term	Automated Gates
		Site Access Recommendations: Reconfigure entrances on both sides of the site to include visitor and staff parking outside the newly delineated area and the automated gate access. Visitors would park outside the fenced area and access the office for a pass. The reconfiguration will require the removal of the existing gatehouse on the east side. Residents would enter the park via automated gates on both sides of the park. Visitors would need to check in at the office. This change along with visitor parking identified in 3.2 would possibly require short term seasonal staff.		\$50,000/side
				Fencing \$45,000

*NOTE: Cost estimate values are based on 2024 rates

Recommendation Item	Rationale and Recommendations	Timing Short Term: 0 - 3 yrs. (2024 – 2026) Medium Term: 4 - 10 yrs. (2027 – 2034) Long Term: 10 – 20 yrs. (2035 - 2043)	Cost Estimate*
2.2 Boat Storage and Trailer Parking	<p>Existing parking lots/areas are not clearly defined through fencing, ground markings or signage. An existing area at the south corner on the west side of the park is an informal and underutilized storage area. The space is currently occupied by several abandoned boats.</p> <p>Some existing campgrounds discussed as part of the background review include a boat trailer storage fee in their base rates, while others charge an additional fee to individuals who choose to leave their trailers on-site year-round. Nearly a third of the campgrounds surveyed also charge for seasonal boat storage. The intent of these charges is to help monitor which amenities are left on-site by which residents year-round. Additional charges intend to disincentivize residents from leaving belongings and equipment in the park for extended periods of time.</p> <p>Boat and Trailer Storage Recommendations: Repurpose the existing fenced-in lot on the northeast side of the park for seasonal boat trailer storage and implement a fee for this storage in the future. The lot will need to be cleaned to remove work equipment and abandoned boats and refreshed by municipal staff with parking lot lines. The southwest lot shall be refreshed and delineated for boat and trailer parking and secondary or visitor parking. This will require surface improvements and signage to identify designated parking areas.</p>	<p>Short Term</p> <p>Boats and Trailers to move storage area in 2024</p> <p>Additional site fee charge in 2025</p>	<p>Maintain practice of requiring a \$250 deposit for trailer parking and introduce a fee of \$50 per season for trailer parking</p>
2.3 Lot Reconfigurations and New Lots	<p>As part of the existing site review, it was identified that there are several existing lots that are quite large, irregular in shape or have encumbrances e.g. retaining walls.</p> <p>New Lot Reconfiguration Recommendation: As indicated on Figure 35, phase the division of larger lots into smaller regular lots over the course of this Master Plan timeline as they become available.</p>	<p>Long Term, or as lots become available</p>	<p>\$47,000</p>
2.4 Centralized Docks	<p>In general, existing docks are in poor condition and require maintenance or replacements. Docks are designed in fixed positions, which makes it difficult for boat users to access docks when water levels fluctuate.</p> <p>Dock Replacement Recommendation: To address the dock issues with regards to improved maintenance and water levels, a centralized floating docking system, one per side, is recommended to replace the existing docks.</p>	<p>East side of Park – Short Term</p> <p>West side of Park – Medium Term</p>	<p>\$415,000 each</p>

*NOTE: Cost estimate values are based on 2024 rates

Recommendation Item		Rationale and Recommendations	Timing Short Term: 0 - 3 yrs. (2024 – 2026) Medium Term: 4 - 10 yrs. (2027 – 2034) Long Term: 10 – 20 yrs. (2035 - 2043)	Cost Estimate*
2.5	Sense of Arrival and Pedestrian Safety	<p>There are a couple issues because of Centennial Park Road bisecting the site. One is the sense of arrival to the park and the other is pedestrian safety. There are different site amenities on each side of the park therefore residents must cross the road to access them. It is our understanding that road works for Centennial Park Road are happening soon.</p> <p>Pedestrian Safety and Arrival Recommendations: As part of the road works along Centennial Park Road, road painting or markings between the two entrances should be provided to indicate to drivers that pedestrians could be crossing. Sense of arrival painting could also be included at this time. In addition, short term shoulder parking at the entrances should be considered for move-in and move-out days and peak weekends.</p>	<p>Medium Term</p> <p>Timing tied to road works</p>	\$5,000 for painting
2.6	Improvements to Beach Area	<p>Existing Beach area is small with difficult access to the water. The area is quite small and uninviting. Improvement to the beach area was a request made by some of the residents.</p> <p>Beach Area Recommendations: In coordination with LSRCA Shoreline improvement could include improving and expanding the beach area to make it accessible, larger to accommodate a larger number of trailer park residents, and more inviting through additional beach furniture elements such as shade structures and/or benches. Shoreline improvements require permits and will be addressed in the Staff Report.</p>	<p>Beach – Short Term</p> <p>Armour Stone – Short Term</p> <p>Floating Dock – Medium Term</p>	<p>\$26,900</p> <p>\$24,500</p> <p>\$171,000</p>
2.7	Trails and other Amenities	<p>The background review indicated several amenities that are offered at other trailer parks in the catchment area. As a result of the engagement and the existing site review the Master Plan proposes some additional amenities.</p> <p>Amenity Recommendations: Two new trails have been proposed for each side of the park. Seating, bird house, bat boxes and a disc golf course are included for in the Master Plan.</p>	<p>Medium Term</p>	<p>Trails \$22,600</p> <p>Disc Golf \$20,000</p> <p>Bird/Bat Boxes \$1,500</p> <p>Seating \$23,800</p>

*NOTE: Cost estimate values are based on 2024 rates

Recommendation Item	Rationale and Recommendations	Timing Short Term: 0 - 3 yrs. (2024 – 2026) Medium Term: 4 - 10 yrs. (2027 – 2034) Long Term: 10 – 20 yrs. (2035 - 2043)	Cost Estimate*
2.8	<p>Signage and wayfinding help create a sense of community and place. There is very little signage throughout the park. Signage can also be important in creating a sense of arrival.</p> <p>Signage Recommendations: It is recommended to install three trailhead signs (3), sixteen street signs (16) and seven wayfinding (7) signs. A new sign or archway is also proposed to replace the existing one.</p>	Short Term – Medium Term, ongoing	\$9,000 \$4,600
2.9	<p>There is an existing recreation building where residents can host events, play games etc. The building needs a refresh.</p> <p>Recreation Building Recommendations: It is recommended to improve the existing building with paint, additional seating and some game tables.</p>	Short Term As-needed upgrades over time	\$8,500
2.10	<p>We heard through the engagement process that residents would like to have an off-leash dog park/area. While the park currently permits dogs within the park, they must be leashed as all times. There are many residents who have dogs and would benefit from an area where they could play leash free.</p> <p>Off Leash Dog Area Recommendation: As per the Master Plan a fenced in area for dogs to be off leash has been proposed on the west side of the park.</p>	Short Term	\$15,000
2.11	<p>Existing mature trees are located throughout the park and provide important shade. As part of the Master Plan 67 new trees are proposed to be planted. In addition, the mature trees will start to reach the end of their lives.</p> <p>Tree Recommendations: Plant additional trees as part of the Master Plan. An arborist should prepare a tree inventory, assess the health of trees, identify trees to be replaced, and the replacement strategy for existing trees.</p>	Phased, Short Term - Medium Term Inventory trees and add in as trees are removed	New Trees \$40,200 Inventory Report \$5000

*NOTE: Cost estimate values are based on 2024 rates

Recommendation Item	Rationale and Recommendations	Timing Short Term: 0 - 3 yrs. (2024 – 2026) Medium Term: 4 - 10 yrs. (2027 – 2034) Long Term: 10 – 20 yrs. (2035 - 2043)	Cost Estimate*
3.0 Fees and Finances			
3.1	<p>2 Options are presented as part of the business case:</p> <p>Option 1: The City should continue with the current practice of increasing lot fees at the rate of growth in the CPI and the timing of capital investments would be determined through the annual budget process.</p> <p>Option 2: The City could increase annual lot fees at a rate of 5% per year.</p>		
3.2	<p>Visitor Fees</p> <p>The background data showed that the current rate of \$364 for the parks seasonal visitor rates is higher than the seasonal rates reviewed as part of the Environmental Scan. Based on the parks financials over the last few years it doesn't appear they track and/or collect revenues for this right now.</p> <p>Visitor Rate Recommendations: While it is not recommended to raise the visitor seasonal rates, it is recommended that the current honour system for payment be evaluated along with the visitor parking to confirm the need for season admin staff.</p>	N/A	N/A
3.3	<p>Parking Fees</p> <p>Additional car and visitor parking fees already exist. As with the visitor rates, it does not look from the from the financials that these fees are consistently enforced.</p> <p>Parking Fee Recommendation: it is recommended to enforce the parking fees and identification for visitor and additional cars. To provide designated parking areas to help enforce parking the Master Plan provides for visitor parking.</p>	N/A	N/A
3.4	<p>Short Term Lots</p> <p>The Background review indicated that some trailer parks include short term stay lots. Short term stay lots provide opportunity for someone who may be interested in renting a seasonal lot as well as for friends and family of residents to stay ensuring the carry capacity of each site is met.</p> <p>Short Term Stay Lots Recommendations: The Master Plan recommends short term stay lots be developed.</p>	Long Term	\$60/night

*NOTE: Cost estimate values are based on 2024 rates

Recommendation Item		Rationale and Recommendations	Timing Short Term: 0 - 3 yrs. (2024 – 2026) Medium Term: 4 - 10 yrs. (2027 – 2034) Long Term: 10 – 20 yrs. (2035 - 2043)	Cost Estimate*
3.5	Premium Lots	<p>The Background review indicated that lots along the eastern waterfront should be converted into premium lots due to their prime location.</p> <p>Premium Lots Recommendations: The Master Plan recommends the implementation of premium lots along the waterfront, with higher rates applied to these lots. and a premium be paid for waterfront lots.</p>	Short Term	Premium Lots \$+500
3.6	Staffing/ Park Management/ Park Maintenance/SOPs	<p>City continues to provide staff at the gatehouse and is responsible for park maintenance. Increased staffing levels would be necessary to maintain staff in the gatehouse 24/7. It is anticipated that 1 full-time position and 2 to 3 part time positions would be required.</p> <p>3rd party company to run/City Maintains: Kawartha Lakes staff would still be responsible for park maintenance, staffing the gatehouse and (1 staff) monitoring the Park would be the responsibility of a third-party.</p> <p>3rd party runs and maintain: Kawartha Lakes retains ownerships</p>		<p>\$150,000</p> <p>\$85,500</p> <p>Further Investigation Required to Confirm Costs</p>

*NOTE: Cost estimate values are based on 2024 rates

7.4.1 Park Management (SOPs, Staffing, Maintenance)

The city should further investigate models that may be available to operate the park on an ongoing basis, including the use of a third-party organization. As part of the Business Case outlined in **Appendix B**, Parcel has engaged in preliminary discussions with a third-party organization that is currently operating trailer parks in the municipality. While this organization was unable to provide an estimated cost for providing these services at this time, they may be interested in responding to a city-initiated request for proposal to provide these services in the future. Alternative operating models that may be available include, having a third-party organization operate the park on a day-to-day basis, including the staff of the gatehouse, while municipal staff would still be responsible for the maintenance of the park. An alternative would be for a third-party organization to provide the full operation of the park.



8

Implementation Strategy

To help inform the CTPMP and the phasing of infrastructure, Parcel has prepared a Business Case that estimates potential future revenues and costs for both operational and capital costs (**Appendix B**). The Business Case estimates how the proposed improvements, updated infrastructure and changes will impact the operating and capital budget going forward and help inform phasing and future Council decisions regarding capital projects.

Costs and revenues for the park have been estimated and compared over a 20-year horizon, concluding in 2044. This forecast period assumes the complete integration of all infrastructure, capital projects and changes proposed in the CTPMP.

In addition, the Business Case estimates the potential timing for infrastructure proposed in CTPMP. This includes the potential onset of new costs, including possible park additions (new infrastructure, lot restructuring, fencing, other amenities etc.) and anticipated service changes (linear servicing, water upgrades, septic beds etc.). It also includes the onset or anticipated timing of potential revenue generating changes, including additions or changes to trailer lots, short-term stay lots and premium rates.

The timing of revenue, operating cost and capital projects has been estimated based on a range of factors including scale, complexity, priority and integrated at various points over the 20-year horizon. It is important to note that the timing for these changes are estimates. The timing of actual changes will be the decision of Council on a year-to-year basis through the approval of a City-wide capital budget.



The following summarizes the timing of the recommendations found in chart in section and associated costs to be implemented in the short term, medium term, and long term:

Short Term: 0 - 3 years (2024 - 2026)

- Evaluation of septic system to confirm remaining service life and septic system replacement
- Provide localized connection systems for lots currently without gravity sewer connections
- Replace the existing 30 amp system with 50 amp system
- Implement hydro sub-metres for all lots
- Continue the ongoing refresh of roads, delineation of existing parking lots
- Move boat and trailer storage and parking lot areas to the existing fenced-in lot on the east side of the park
- Implement a centralized floating dock system on the east side of the park (\$415,000 each)
- Expand the beach (\$26,900) and install armour stone retaining walls on the expanded beach (\$24,500)
- Refresh the recreation building (\$6,500)
- Implement an off-leash dog park (\$15,000)

Medium Term: 4 - 10 years (2027 - 2034)

- Reconfigure entrances on both sides of the site to include visitor and staff parking outside the newly delineated area and the automated gate access (Automated Gates: \$50,000 / side, Fencing: \$45,000)
- Implement a centralized floating dock system on the west side of the park (\$415,000 each)
- Implement road painting and pedestrian crossing marks on Centennial Park Road (\$5,000)
- Implement a floating dock for the expanded beach (\$171,000)
- Add new trails (\$22,600), bird and / or bat boxes (\$1,500), benches and covered seating areas (\$24,700) and disc golf holes (\$20,000)
- Install trailhead signs, street signs and wayfinding signs (short term: \$9,000, medium term: \$4,800)
- Install new trees (\$40,200)

Long Term: 10 - 20 years (2034 - 2044)

- Expanding existing parking lots and implement new parking lots
- Divide larger lots into smaller regular lots as they become available

A Mapping Images

A.1 Opportunities and Constraints Mapping

The opportunities and constraints maps illustrated in this chapter visually summarizes and maps, through blocks of colours, symbols, and graphic lines, areas that may be re-developed, re-programmed, redesigned, and more.

A.1.1 What Challenges or Constraints Exist?

The subject site, illustrated below contains a few constraints that may impact the revitalization of Centennial Trailer Park.



Centennial Trailer Park Constraints Map

Access to the eastern and western sides of Centennial Trailer Park are limited to two entrance gates along Centennial Park Road. Almost the entire length of Centennial Park Road is constrained with chain link fences on both sides of the road. The purpose of the chain link fence is to ensure only trailer park residents have access to lots and amenities.

The existing shoreline requires stabilization and/or revitalization. The shoreline is currently unstable and eroding, as observed during the site visit and indicated by municipal staff. Revitalization of the shoreline will require coordination with the Lake Simcoe Region Conservation Authority (LSRCA) and/or the Ontario Ministry of Natural Resources.

The east side of the park is constrained by wetlands. A dock was observed within the wetland and is less frequently used due to its hidden location.

In general, existing docks are in poor condition and require upgrades. Docks are designed in fixed positions, which makes it difficult for boat users to access docks when water levels fluctuate. There is a proposed boat launch improvement area on the west side of the park, which will prevent any additional development or improvement in this area.



Shoreline condition adjacent to the beach



Hidden dock within wetland on the east portion of the park

Both the east and west sides of the park contain septic beds within the open play/playground areas. No new developments or structures are permitted on top of these beds. Further, no activity, such as open play space or sports field are permitted on the septic beds. This constrains the subject site on both sides and limits the amount of amenity or developable space in the park.

There is limited existing parking lots on either the east or west side of the park. Online survey feedback and municipal staff comment indicated the need for expanded parking lots, and new parking lot types. This included the need for additional personal vehicle spaces, visitor spaces, and trailer and boat parking.

Lastly, the existing electric system is outdated based on current trailer park user needs. Existing electrical systems run at 30 amps. It is recommended that the system be upgraded to accommodate 50 amps. Constraints include high costs to upgrade the entire electrical system.

A.1.2 What Opportunities Exist?

There are several opportunities for improvements to Centennial Trailer Park. Constraints identified in the previous Section of this report are also inversely identified as opportunities to improve the park illustrated below.

Access to Centennial Trailer Park is limited to two entrance gates along Centennial Park Road. Gate access may be improved or upgraded to include automated gate entry controlled by one central office, or a main secure check-in area with layby parking. There are opportunities to expand the main check-in office to

include a store and expand the storage and games room to offer more indoor amenity spaces and uses. Further, the entrance area may include a gateway feature such as a mural painted on the asphalt to signal arrival to the park.

Through coordination with the LSRCA shoreline improvements such as shoreline planting and/or constructed methods can stabilize the shoreline to ensure no erosion occurs. Shoreline improvement may also include improving and expanding the beach area to make it accessible, larger to accommodate a larger number of trailer park residents, and more inviting through additional beach furniture elements such as shade structures and/or benches.

Online survey feedback, as well as City staff comments recommend floating docks and/or a central floating pier situated further into the lake. Docks on the east side of the park may be lined with a trail that will delineate trailer lots from other resident access.



Centennial Trailer Park Opportunities Map

There are opportunities to rearrange the existing sports field and play area on the western portion of Centennial Trailer Park, adjacent to the beach area. Underutilized sports fields, such as the baseball diamond, should be removed to allow open play space with new tree planting. The existing revitalization planting area may be revitalized to re-establish a naturalized trail and planting to increase habitat space for birds, bugs, and small animals. On the eastern side of the park, the outdoor amenity space along Canal Lake can be revitalized to include smaller scale active uses such as lawn games, restoration / meadow planting bordering trailer lots, and maintaining the open play area. Additional meadow planting may be placed on top of the septic beds to allow visual interest, increase habitat area, and utilize portions of the park that are otherwise constrained from active use.

There are opportunities to reconfigure trailer park lots and resize them to make each trailer lot size more consistent. There are several lots, identified in the Opportunities Map which are larger than the average lot size. Reducing the size of these lots would allow additional space for more amenity areas, parking areas, additional long-term, or short-term trailer lots, and more.

A.1.3 The Concepts

Results from the Opportunities and Constraints mapping, municipal staff, and online public survey results, as well as findings from the background review and site visit resulted in the preparation of two different concept plans. These concept plans illustrate how Centennial Trailer Park may be maintained, redeveloped, expanded, or revitalized.

A.1.3.1 Concept 1: Nature + Sustainability



Centennial Trailer Park Plan - Concept 1

Concept 1 is organized around revitalizing the water's edge, increasing areas of no-mow zones and adding areas for birds, butterflies, bats, adding trails, educating and encouraging sustainable behavior. The unique features of this concept include:

- Create a sense of arrival with paint on the Road to visually join the two sides of the park together
- Revitalizing an existing naturalized area adjacent to the water and proposes to add additional features
- Revitalize the beach area while maintaining the integrity of the shoreline and creating a better

- access to the beach and area, seating, shade structures and trail access
- Trails are proposed along the eastern edge of the water
 - Drinking water system would be upgraded by looping existing dead ends in the system to improve water quality and minimize stagnation.
 - Delineated parking for additional cars and guest with one main secure check-in
 - Delineated and secure area for parking boat trailers
 - Remove the baseball diamond and create a central green/free play areas with the additional of some no mow areas to minimize grass cutting
 - Relocate and add a multi-court, playground, and beach volleyball court
 - Increase the size of the recreation centre to allow for ping pong, pool, darts, and a larger gathering space
 - Expand the office and add a store area for incidentals, snacks, and ice cream
 - Upgrade to provide 50 amp electrical service within the park, including the replacement of existing hydro service to each lot, complete with separate metering.
 - Evaluate existing sewage treatment system and replace if required. For lots requiring pump-out operations, install localized gravity collection sewers to centralized holding tanks to minimize spills and maximize staff health and safety.
 - Retain permanent staff to run and maintain park infrastructure to build a sustainable knowledge base amongst staff.

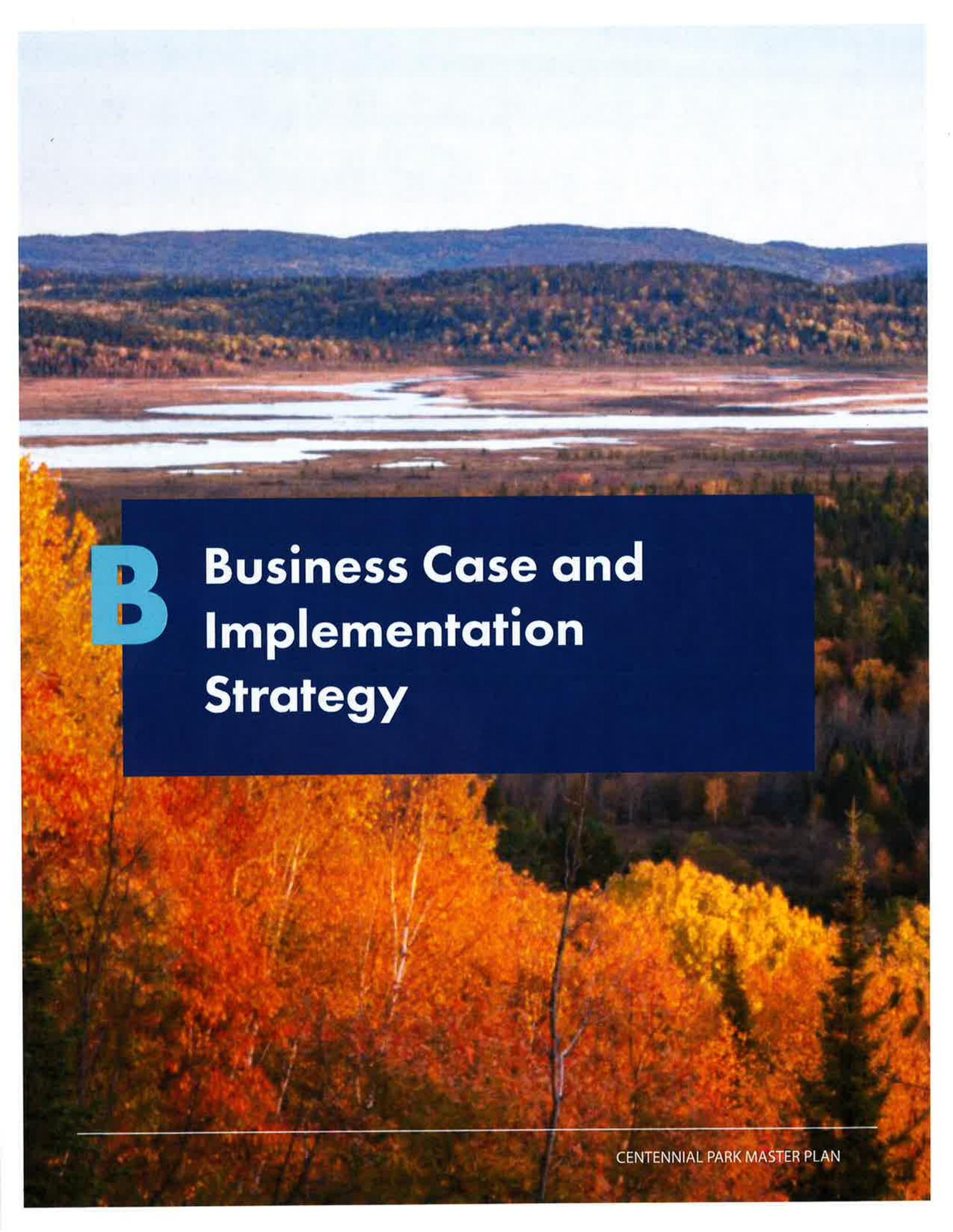
A.1.3.2 Concept 2: Renovate + Maintain



Centennial Trailer Park Plan - Concept 2

Concept 2 proposes to renovate existing infrastructure, maintain facilities such as the play areas and renovate areas of the park to accommodate overflow parking. The unique features of this concept are:

- On street parking along the roadside
- Remove an existing naturalized area adjacent to the water and allow the area to regenerate
- Renovate the beach area to increase the size and created better water access/beach area
- Drinking water system to be maintained and repaired as needed
- Addition of new lots for short term or long-term stay
- Delineated parking for additional cars and guest with automated gate access
- Adjust large lots to accommodate more parking
- Renovate play facilities, and adding lawn games such as horseshoe pits
- Expand the office and add a store area for incidentals, snacks, and ice cream
- Maintain 30 amp and equal division of hydro
- Evaluate existing sewage treatment system and replace if required.
- Maintain existing pump-out operations.
- Contact separate company to staff and maintain park



B Business Case and Implementation Strategy

Centennial Trailer Park

Master Plan - Business Case

April 18, 2024

Parcel

PREPARED FOR:

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Parcel

1.0

Business Case

1.1 Introduction

To help inform the Master Plan for Centennial Park and the phasing of infrastructure, Parcel has prepared the following Business Case that estimates potential future revenues and costs (both operational and capital costs) associated with the preferred concept plan. The purpose of this analysis is to estimate how the proposed infrastructure will impact the operating and capital budget of the park going forward and help inform phasing and future Council decisions regarding capital projects.

Costs and revenues for Centennial Park have been estimated and compared over a 20-year horizon, concluding in 2043. This forecast period assumes the complete integration of all infrastructure, capital projects and changes proposed in the Master Plan for Centennial Park.

In preparing this Business Case, Parcel, SGL and GM Blue Plan have estimated the potential timing for infrastructure proposed in the Master Plan. This includes the potential onset of new costs, including; potential park additions (new infrastructure, lot restructuring, fencing, other amenities etc.) and anticipated service changes (linear servicing, water upgrades, septic beds etc.). It also includes the onset or anticipated timing of potential revenue generating changes, including; additions or changes to trailer lots, short-term stay lots and premium rates.

Timing of Revenue and Capital Costs

The timing of revenue, operating cost and capital projects has been estimated based on a range of factors (e.g., scale, complexity, priority etc.) and integrated at various points over the 20-year horizon. It is important to note that the timing for these changes are estimates. The timing of actual changes will be the decision of Council on a year-to-year basis through the approval of a City-wide capital budget.



Immediate

anticipated to take effect next year.



Short Term Horizon

anticipated to fruition in the next 3-years.



Medium Term Horizon

anticipated to fruition in the next 10-years.



Long Term Horizon

anticipated to fruition in the next 20-years.

Estimated Operational and Capital Costs

The estimated operational costs and capital costs are based on information that was available at the time this Business Case was prepared. In the case of capital costs, estimates are largely based on the current replacement value of similar infrastructure in the City of Kawartha Lakes. Where current costs are not available, Parcel has relied on costs estimates included in the 2019 Development Charges Background Study and inflated them to current year.

For servicing infrastructure such as roads, linear water and wastewater and septic beds, GM Blue Plan has provided estimates (in current dollars) based on their extensive experience across the province. However, the actual value of capital costs will ultimately be based on City tenders, when a decision is made by Council to move forward with the various pieces of infrastructure.

1.2 Revenues

Seasonal Trailer Lots



Seasonal rates for trailer lots on the east and west side of the property were estimated based on existing rates for sites in the park. This includes \$2,517 per lot on the east side of the property, \$2,328 per lot on the west side for lots with water and pump out to \$2,769 per lot on the west site for lots with water and sewer access. In forecasting future revenues, we have assumed that there will be 0% vacancy and that lot fees are increased at a rate of 2% per year. The assumed increase of 2% per year is consistent with current City policy that seeks to increase lot rates at the pace of growth in the Consumer Price Index ("CPI").

Recognizing the seasonal rates for lots with full water and sewer are higher than lots with pump-outs, we have assumed that seasonal rates for lots that currently have pump-outs will increase when full municipal services are available to those lots. The increase in rates will be in-line with anticipated upgrades to sanitary infrastructure.



We have assumed a premium of \$500 per lot per year for lots identified in the Master Plan as **waterfront lots**. This premium rate is assumed to be integrated immediately to better account for

the premium location, access and unique characteristics of these lots compared to other sites at the park. The premium of \$500 per year per lot is based on pricing of waterfront lots at comparable parks.



The restructuring of Centennial Park is anticipated to generate opportunity for an additional four trailer lots to be added to the property. This includes three lots on the east and one lot on the west. These lots will be integrated as existing lots turnover and sites become available rather than at a certain point in time. However, for purposes of estimating potential revenues, Parcel has conservatively estimated that these lots will be integrated over the long-term though recognize that they could fruition at an earlier date. Per above, seasonal rates for these lots were estimated based on existing rates for sites in the park (currently \$2,517 per lot on the east side and \$2,769 per lot on the west side, assuming access to full municipal services).

Short-Term Stay Lots



The Master Plan anticipates the introduction of four new lots for short-term (overnight) stays over the longer term. Based on comparable parks which offer this feature, the nightly rate for these lots has been estimated at \$60 per night (2024 dollars). To calculate the potential revenues generated by these lots, Parcel has estimated potential occupancy. It has been estimated that the highest rate of occupancy will be on summer weekends (i.e., July and August). To this end, the revenue calculation has assumed 100% occupancy across summer weekends and 75% occupancy throughout summer weekdays.

Occupancy is anticipated to be less significant outside the core summer months. To be conservative, Parcel has estimated 50% occupancy across the four lots for May, June, September and October.

Based on these assumptions, the short-term lots are estimated to generate some \$32,000 in additional revenues for the park in 2043, increasing by 2% per year thereafter. To put this in perspective, this would result in revenue of nearly \$8,000 per lot per year, which is over double the lease rate at traditional seasonal lots. Incorporating short-term stay lots also serves as a marketing opportunity for the park by introducing people to the park and potentially creating a “wait list” for when seasonal lots become available in the future.

Hydro Revenue



In the short term—recognizing that lot servicing is anticipated to be upgraded to 50 AMP servicing—hydro services fees are anticipated to increase by \$300 per lot in 2043, increasing by 2% per year thereafter. The additional rate charged for 50 AMP servicing is consistent with the cost differential

applied to competitive campgrounds for premium–better serviced–lots and recognizes increased costs to the municipality for providing this service to seasonal lots.

Additional Revenues

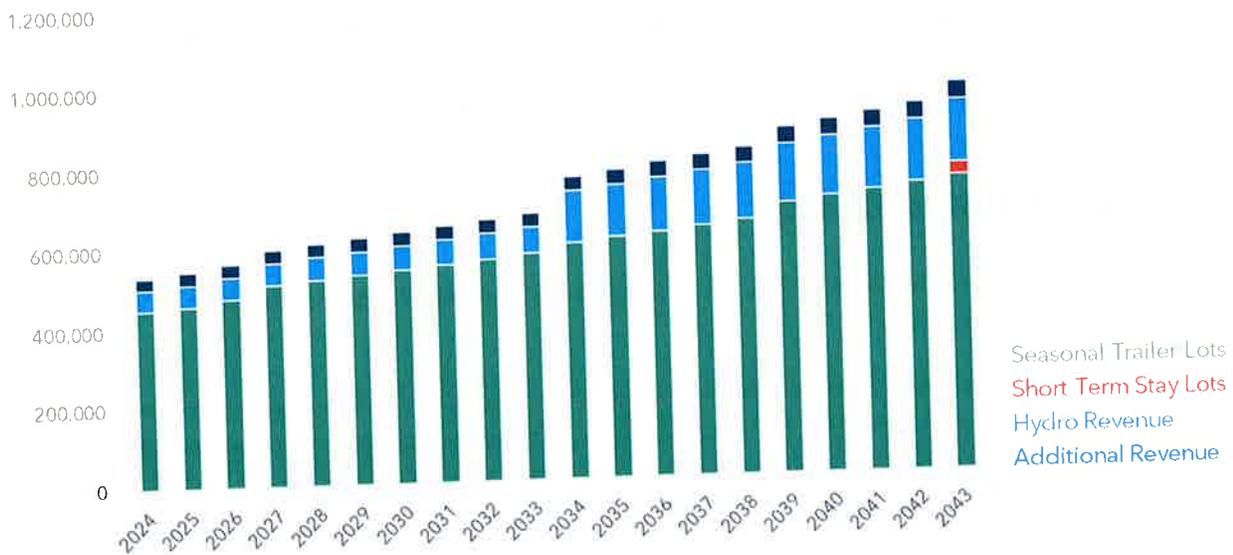
Including: Shower & Laundry, Boat Docking Fee, Boat Trailer Storage & Miscellaneous Revenues.



To calculate potential additional revenues for Shower & Laundry, Boat Docking Fees and other Miscellaneous Revenues, Parcel has relied on actual revenues attained in 2023. This is because these features are anticipated to maintain their current operations, with no significant changes anticipated as part of the Master Plan. To calculate boat trailer storage, Parcel has estimated revenues on the conservative assumption that approximately 40 boats trailers will be stored at Centennial Park during operating season. In looking at comparable parks, revenues have been calculated assuming a storage fee of \$100 per year. Current rates have been inflated by 2% per year to determine potential annual revenues attained by the park.

A summary of revenue by source (seasonal lots, short-term stay lots, hydro and additional revenue) is summarized in Figure 1.1. As shown, revenue from seasonal lot rentals is anticipated to account for the majority of revenue in the future.

Figure 1.1
Forecast Revenues - Centennial Trailer Park



Source: Parcel.

1.3 Operating Costs

Wages



The wage estimates included in this analysis assume that a third-party organization operates the Park on a day-to-day basis. While Kawartha Lakes staff would still be responsible for park maintenance, staffing the gatehouse and monitoring the Park would be the responsibility of a third-party. It is our understanding that Kawartha Lakes staff are interested in this approach and the potential costs associated with this change.

To this end, in preparing this Business Case, Parcel engaged in preliminary discussions with an organization that currently operates other trailer parks in the municipality. While this organization was unable to provide an estimated cost for providing services to Centennial Park, they may be interested in responding to a City-initiated request for proposal to provide these services in the future.

Included cost estimates assume the potential operational cost associated with a third-party organization maintaining one gatehouse staff on the property during operating season. This staff member would be supported by one additional gatehouse staff in the evenings and during the weekends. Wages have been calculated for each staff at an hourly rate of \$25. Based on current dollar estimates, this amounts to some \$150,600 per year in wages. Going forward, wages have been inflated by 2% per year.

The addition of a third-party organization and associated gatehouse staff would increase wage costs by some \$85,500 per year based on the current estimated wages associated with Park staff. While this represents a 75% increase from existing costs, it would also transfer some of the responsibility from the City to another organization and—if interest exists—provides opportunities for other longer-term support.

Wages (Related Costs)

Including: Overtime, Employment Insurance, Canada Pension Plan, Employer Health Tax, Omer's Pension & Group Benefits.

Parcel has estimated the cost of each additional wage-item based on historical assumptions included in the Park's 2023 operating budget. For example, the 2023 budget estimates that overtime costs were 4.6% of 2023 wages. This assumption was maintained going forward and applied to the anticipated total wages forecast. Based on current dollar estimates, this amounts to some \$25,600 in additional wage-related costs.

Water Utilities, Wastewater, Electrical, Lighting & Stormwater (Drainage) & Roads

MT

GM Blue Plan has estimated the annual maintenance costs of Water Utilities, Electrical & Stormwater (Drainage) & Roads. In the short-term, water infrastructure maintenance is anticipated to be some \$15,000 per year, increasing to \$20,000 in the medium term and some \$25,000 in the long term. Increasing costs overtime coincide with additional repairs required as water infrastructure approaches its end of life.

Wastewater infrastructure maintenance has been estimated at some \$15,000 annually. While the new collection system will likely reduce staff operation costs, it will ultimately require additional ongoing maintenance. Further to above the ongoing maintenance of stormwater facilities and roads—including culvert clearing and pothole repair—has been estimated at \$8,000 annually beginning immediately.

Finally, upgraded electrical infrastructure is anticipated to continue demanding maintenance and servicing support. Prior to upgrading all lots to 50-AMP servicing, maintenance is estimated to cost some \$10,000 annually. These costs will assist in completing the system's redesign. In 2034, upon adoption and implementation of 50-AMP servicing, annual electrical costs are anticipated to reduce to \$3,000 annually. Electrical costs also include the cost of new lighting at Centennial Park, specifically the introduction of 45 new lights (lighting pole, fixture and cables) which are estimated at \$10,000 each and structural footing, estimated at \$2,000 each. An additional cost to continue operating existing telecom infrastructure has also been integrated, including some \$3,700 each year beginning immediately.

In summary, these estimates considered data provided by staff for the last 5-years of park operation, alongside the approximate service life of each asset proposed. Furthermore, all rates noted above have been inflated by 2% per year to determine potential annual costs attained by the park.

Other Operating Costs

I

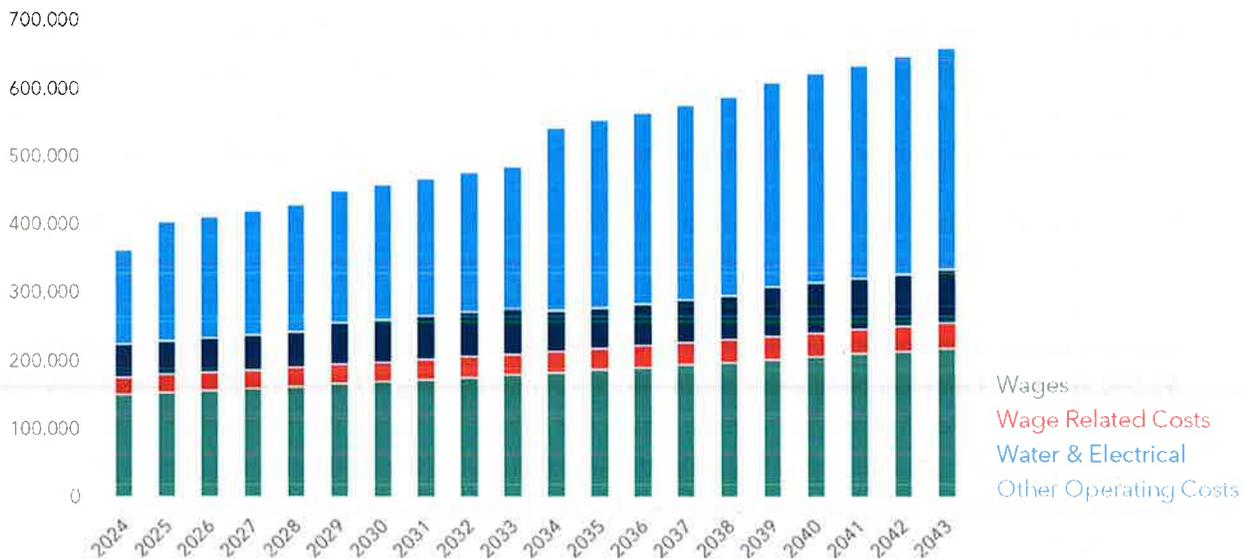
Including: *Telecommunications, Miscellaneous Expenses, Janitorial Supplies, Maintenance Supplies, Hydro, Propane (Bulk), Contract Allocation, Dock Maintenance & Repair, Garbage Collection, Security, Building Maintenance & Repair, Alarm Monitoring, Operating Equipment Maintenance, Grounds Maintenance & City Property Tax.*

Recognizing that operating costs fluctuate year over year, Parcel has estimated the potential cost of each operating item based on the assumptions included in the 2023 Operating Budget for the Park. To be conservative, Parcel has maintained the same base rate for each line-item, recognizing that

individual items are likely to exceed and / or be less than the estimated total. Based on current dollar estimates, this amounts to some \$139,900. Going forward, each cost has been inflated by 2% per year.

A summary of operating costs by source is summarized in Figure 1.2. As shown, wages are anticipated to account for the majority of costs in the future.

Figure 1.2
Forecast Operating Costs - Centennial Trailer Park



Source: Parcel. Wage estimates are based on a third-party organization operating the gatehouse and monitoring the Park, a 75% increase from budgeted wage estimates for Centennial Park in 2023.

1.4 Capital Costs

Servicing

GM Blue Plan has estimated servicing costs necessary to implement the proposed changes to Centennial Park. As noted by GM Blue Plan, the capital costs for each were estimated using a unit rate construction cost and considered the rural nature of the park and typical reinstatement costs. The capital costs also assumed an additional 20% for construction, engineering, and design costs, and a 30% contingency.

The wastewater collection system has been integrated as a long-term cost recognizing that the introduction of these systems is expensive and that each represents a desired improvement rather than a necessary change. While improvements to each collection system are integrated over the long-term, it is also recognized that each system is self-contained. The city can ultimately proceed with implementation of each system individually or simultaneously developing on future capital availability.

Similarly, a standalone fee to extend water infrastructure to new lots proposed as part of the Master Plan has been integrated. This fee is estimated at \$82,000. Recognizing that the servicing of four lots can be serviced at any point determined by the city and that the servicing needs of the other three lots depends on the turnover of existing lots, this cost has been divided. Some \$47,000 has been integrated in the short-term while the remaining \$35,000 to service the remaining three lots has been integrated over the medium term. Some \$70,000 has also been integrated to construct gravel roads to new lots integrated as part of the Master Plan.

Furthermore, electrical infrastructure has been integrated as a medium-term cost as this upgrade represents a substantial cost. As a one-time cost, dependent on the redesign and complete system upgrade, integrating this cost over the medium term provides opportunity for the City to work through the pre-design, design & capital hurdles in the preceding years. The servicing costs are summarized below.

Figure 1.3

Stand Alone Capital Costs

Proposed Improvements	Cost (\$2024)	Timing
Wastewater Infrastructure	\$3,881,000	
Septic Evaluation	\$16,000	Short-term
Septic System (East Side)	\$310,000	Short-term
Septic System (West Side)	\$310,000	Short-term
Sewer Extension	\$90,000	Short-term
Tank Systems 1-7	\$3,155,000	Long-term
Water Infrastructure	\$82,000	
New Lots	\$47,000	Short-Term
Divided Lots	\$35,000	Medium-term
Stormwater (Drainage) & Roads	\$890,000	
Construct Gravel Road	\$70,000	Medium-term
Road Refresh & Parking Resurfacing	\$125,000	Short-term
New Parking Area Development	\$695,000	Medium-term
Electrical Infrastructure	\$1,600,000	Medium-term
New 50 AMP Servicing	\$75,000	Short-term

Source: Costing prepared by GM Blue Plan.

Park Infrastructure Upgrades

NOTE:

Where possible, infrastructure costs have been based on 2024 infrastructure costs provided by the City of Kawartha Lakes and inflated by 2% per year thereafter. Where updated rates are not available, Parcel has relied on cost information included in the 2019 Development Charges Background Study (2019 DCBS) and inflated these values to estimate a base 2024 rate. These rates have similarly then been inflated by 2% per year thereafter.

Road & Parking Refresh



Road and parking re-fresh and resurfacing has been estimated by GM Blue Plan to cost some \$125,000. As a short-term investment, this fee is anticipated to occur in 2026.

Fencing - Front Entrances



The Master Plan proposes to include new fencing at the entrance of the park, some 320 metres. The 2019 DCBS includes an estimate of replacement costs for new fencing costs per metre, some \$96. As a priority and less intensive change, this cost has been anticipated to occur in the medium-term horizon. As such, after inflation, it is estimated that new fencing will cost some \$53,800.

Arrival Art



The Master Plan proposes to include "arrival art" at the entrance of the park, helping draw attention to the entrance and delineate it within the road network. In current dollars, this art piece is anticipated to require a \$5,000 one-time investment.

Play Surface



The Master Plan proposes to replace the existing play surface area with a hard surface pad, some 358 square metres in area. The 2019 DCBS includes an estimate for play surfaces of some \$103 per square metre. After inflation, it is estimated that this upgrade will cost nearly \$56,100 in the short-term horizon.

Automated Gate Entry

MT

A new automated gate entry on either side of the park has been included as part of the Master Plan, helping improve the safety of the park while better controlling park access. The cost of this gate will vary significantly based on the quality, scale and function of the equipment purchased. Recognizing that the municipality will ultimately determine what type and quality of gate arm they are willing to purchase during the capital budgeting process, we have conservatively estimated the total cost to be \$100,000 in 2023 (\$50,000 per gate). The introduction of these automated gates have been identified as a priority and will be introduced in the medium term.

Figure 1.4

Proposed Gate Entry Options – Potential Considerations



Source: Parking BOXX and Hudson Entry.

Centralized Docks

MT

The addition of two centralized docks have been included in the draft plan for Centennial Park. This includes one on each of the east and west sides. Each centralized dock is estimated to be some 800 square metres in size.

The 2019 DCBS includes an estimate for docks / piers at some \$354 per square metre. After inflating this to 2024, it is estimated that each pier would cost nearly \$415,000 or a combined total of nearly \$830,000.

Recognizing the scale and costs associated with this project, it has been assumed that one of the docks will be introduced in the short term, with the other introduced over the medium term

New Trail



As part of broader revitalization efforts, there are plans to integrate new trails through the park. On the west side, this includes a 0.5-kilometre loop around the existing open play area and a 0.9-kilometre trail along the edge of Canal Lake. On the east side, a 0.8-kilometre trail loop is proposed to run throughout the property, extending between existing lots and the street edge.

Parcel has used the “natural trail” rate from the 2019 DCBS—some \$7 per metre—to estimate the cost of constructing these new trails. After inflation, these trails are estimated to cost some \$22,600.

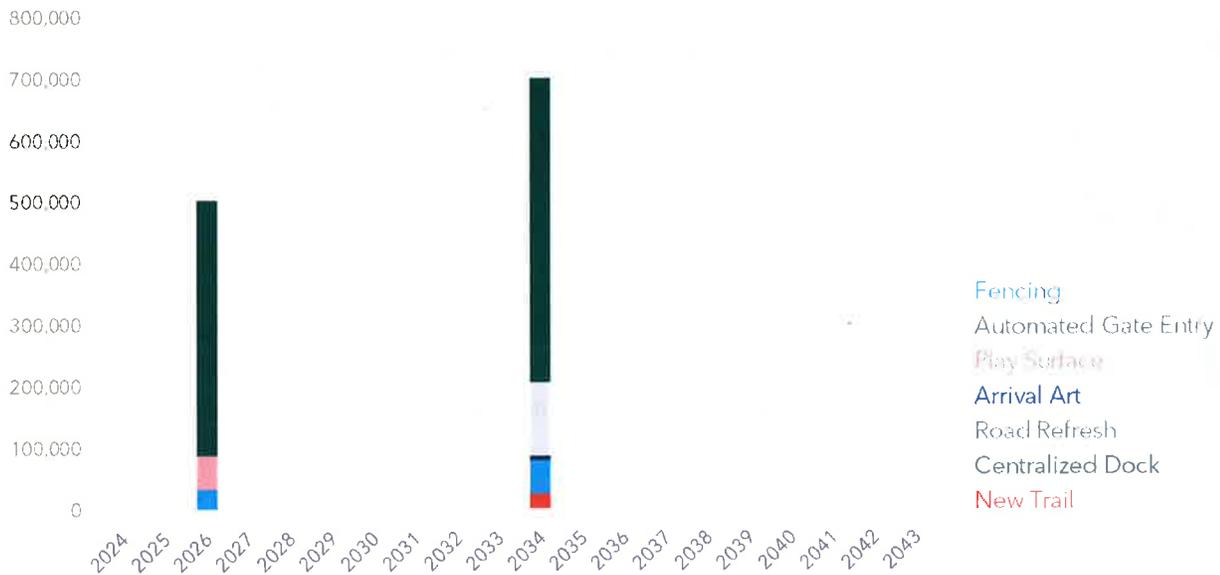
Fencing - Boat Storage



Over the short term, the Master Plan proposes to include new fencing around the boat storage area. This includes some 250 metres of fencing. Consistent with above, Parcel has applied the 2019 DCBS estimate for new fencing—some \$96 per metre—to estimate the potential cost of this addition. After inflating the rate in the 2019 DCBS to 2024, it is estimated that fencing will cost nearly \$35,200. Recognizing that fencing at the park entrance is likely a high priority, this has been included as a medium-term cost. It is important to note that the costs for new fencing included in this analysis do not factor the potential need for new gravel or security associated with fencing. These components could increase the cost associated with fencing around the boat storage area, albeit a marginal amount relative to acquisition and installation fees.

Figure 1.5

Forecast Infrastructure Upgrades - Centennial Trailer Park



Source: Parcel.

Beach Upgrades

Expanded Beach



The Master Plan includes an expansion to the existing beach along Canal Lake over the long-term. Currently, this includes an expansion totalling some 1,530 square metres (0.38 acres). In reviewing development charges background studies for comparable municipalities, the cost of a beach expansion currently averages some \$71,000 per acre. Applying this estimate to the anticipated expansion area of the beach, amounts to some \$26,900 in cost.

Additional fees may be required as part of this expansion, including permit and application fees required from the Conservation Authority. These fees are tied to conditions and requirements by the Conservation Authority and have not been included in the costs summarized in this analysis. That said, relatively to the costs of physically expanding the beach, it is anticipated these fees would be minimal.

Armour Stone



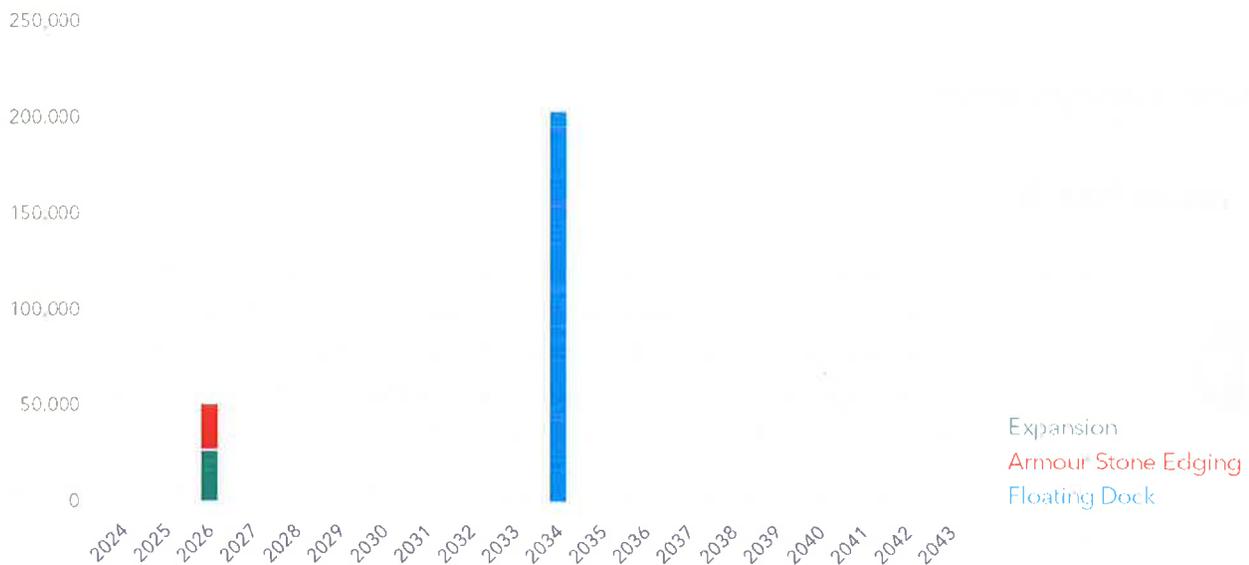
To further support and improve the beach area of the park, the Master Plan proposes to integrate new armour stone edging surrounding the area, some 120 metres of edging. In reviewing a range of cost estimates for armor stone—including that utilized for landscaping or aesthetic purposes—the average estimated cost was approximately \$200 per metre in current 2024 dollars. This means the proposed development is expected to cost some \$24,500.

Floating Dock



The final improvement proposed to be integrated to the existing beach is a 330 square metre floating dock. This dock is proposed to extend from the beach, a short distance into shore. Consistent with above, the estimated cost for a dock or pier in Kawartha Lakes was some \$354 per square metre in 2019. After inflation, it is estimated that cost of the new floating dock will be some \$171,000.

Figure 1.6
Forecast Beach-Related Costs - Centennial Trailer Park



Source: Parcel.

Additional Amenities

NOTE:

Where possible, infrastructure costs have been based on 2024 infrastructure costs provided by the City of Kawartha Lakes and inflated by 2% per year thereafter. Where updated rates are not available, Parcel has relied on cost information included in the 2019 DCBS to estimate a base 2024 rate. These rates have similarly then been inflated by 2% per year thereafter.

Site Furnishing & Trees



The Master Plan proposes to include covered **seating areas**. Parcel has relied on 2024 costing information provided by the City of Kawartha Lakes to estimate potential costs. Specifically, each seating area is estimated to cost some \$1,484.

Based on these estimates, the additional park seating proposed is estimated to cost approximately \$23,800 in current dollars. Relative to other additions or changes proposed, the addition of new seating is not anticipated to be an extensive process. Therefore, it is expected to be a short-term cost.

Figure 1.7

Proposed Seating Options - Potential Considerations



Source: Eh Canada Travel, DeviantArt and iStock Images.



Replacement and the addition of new trees is also identified as way to enhance the campground. Per changes included in the Master Plan, there is opportunity to add 67 **new trees** across the east and west side of the property. On that basis that a new tree costs \$600, these trees are anticipated to cost a total of \$45,200 in current dollars. They are anticipated to be planted in the short-term, allowing each to grow and expand overtime.

Forecasts have also recognized that the park will need to monitor and potentially replace existing and new trees over the longer term. To be conservative, we have assumed an annual fee for annual tree replacement, some \$1,500 per year.

In advance of replacing and adding trees, it is also anticipated that a Tree Inventory Assessment and replacement plan be completed by a certified arborist. This has been estimated to cost some \$5,000.

Recreation Centre Refresh



The Master Plan proposes to refresh the existing recreation centre, improving its overall quality and function rather than fully replacing it. In 2024 dollar, the anticipated refresh is estimated to cost \$8,500. This one-time investment is assumed to cover painting, the purchase of limited seating, in addition to one-time labour costs required to implement these improvements.

Wayfinding Improvements

Includes: *Trailhead signs, Street signs, Wayfinding boards.*



Trailhead signs (3), **street signs** (16) and **wayfinding** (7) are all proposed as potential improvements to Centennial Park. Potential costs for each are based on a range of background information, including fees and charges of other municipalities. Based on this review, 2024 costs have been estimated at: \$1,500 per trailhead sign, \$265 per street sign, and \$50 per wayfinding unit. In total, the addition of signs and wayfinding is estimated to cost some \$9,000.



A new sign or archway is proposed to be introduced at the entrance of the park, including a new feature on both the east and west sides. Per the 2019 DCBS, the cost of a new sign was estimated at \$1,578 per unit. After inflation—and recognizing that there are two signs proposed—the total cost for signage is estimated to be some \$4,600. In helping distinguish, highlight and celebrate the park, this feature is proposed as a short-term cost.

Other Features

Includes: Bird / Bat Boxes, Dog Park & Disc Golf Course



Based on our review, a **bird / bat box** costs approximately \$300 per unit. The current Master Plan integrates some 5 bird / bat boxes within its existing area, totalling some \$1,500 in the near term.



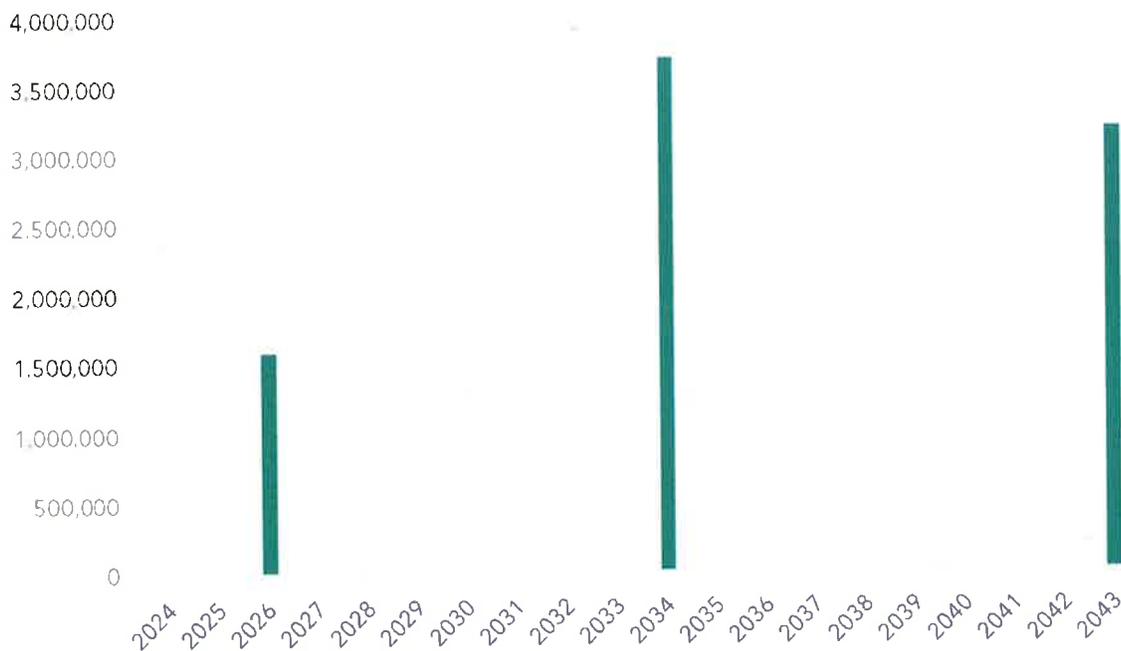
The Master Plan proposes to introduce an off-leash **dog park**. Based on land availability on-site and other requirements, the dog park is estimated to be some 2,000 square metres (0.2 hectares) in size. Having reviewed data for new dog park developments, it is estimated that development of this space would cost \$7.50 per square metre, amounting to a total costs of \$15,000 (\$2024).



A review of replacement costs for **disc golf courses** across other municipalities (e.g., Guelph, Collingwood, etc.) suggests a disc golf course currently costs \$20,000 per course. As the draft plan proposes to include one new disc golf course, \$20,000 is the estimated cost of this addition.

Figure 1.8

Forecast Cost of Additional Amenities - Centennial Trailer Park



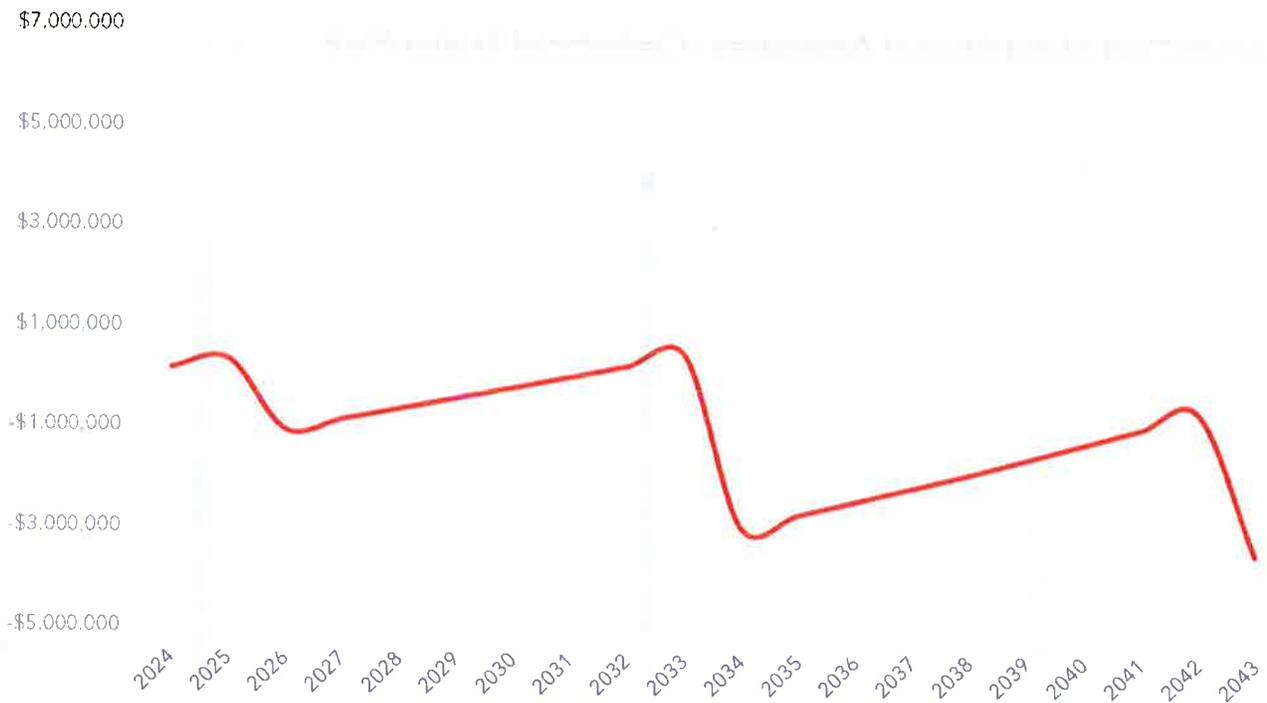
Source: Parcel.

Net Infrastructure Costs

Based on the above assumptions, including increasing lot fees by 2% per year, we have estimated the net operating surplus in each year of operation. However, as shown in Figure 1.9, when capital costs associated with the Master Plan for Centennial Park are incorporated, the Park is anticipated to have a net deficit of approximately \$3.4 million by 2043, as the revenue from lot fees will not be sufficient to support the significant cost of capital infrastructure, including electrical upgrades, collection systems, among other upgrades.

Recognizing that Centennial Park has been generating an annual operating surplus (approximately \$2.1 million between 2015 and 2023), the City could continue with the current practice of increasing lot fees at the rate of growth in the CPI and the timing of capital investments would be determined through the annual budget process.

Figure 1.9
Accumulated Net Operating & Capital Costs

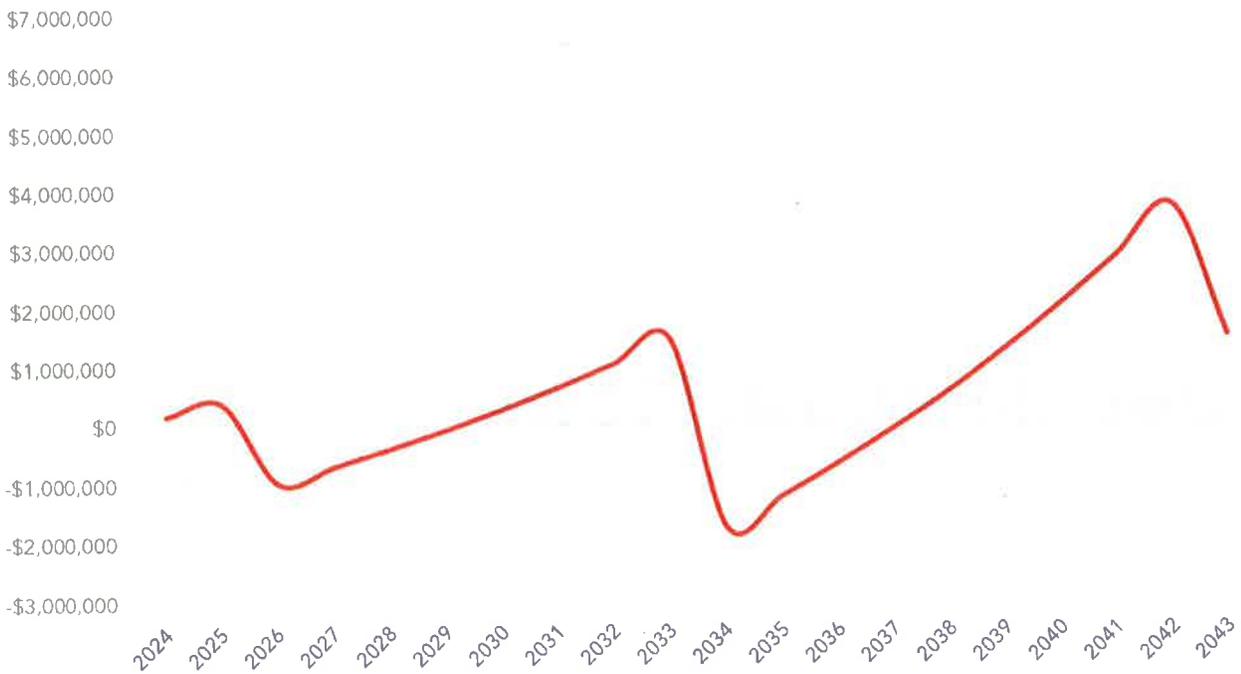


Source: Parcel.

As an alternative, if the City increased annual lot fees at a rate of 5% per year (greater than the rate of growth in the CPI), it would be sufficient to cover capital and operating costs at Centennial Park between 2024 and 2043, as shown in Figure 1.10. Increasing fees by 5% per year would result in a net surplus of \$1.4 million by 2043.

Figure 1.10

Accumulated Net Operating & Capital Costs Based on 5% Growth in Lot Fees



Source: Parcel.

Appendix:

Detailed Cash Flows

Figure A.1

Detailed Cash Flows - Revenue

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Revenue										
Number of Lots										
Existing Lots	173	173	173	173	173	173	173	173	173	173
East Side	99	99	86	86	86	86	86	86	86	86
West Side (water and sewer)	51	51	51	51	51	51	51	51	51	51
West Side (water and pump-out)	23	23	23	23	23	23	23	23	23	23
Waterfront Lots	0	0	13	13	13	13	13	13	13	13
Additional Lots	0	0	0	0	0	0	0	0	0	0
East Side	0	0	0	0	0	0	0	0	0	0
West Side	0	0	0	0	0	0	0	0	0	0
Rental Rate										
East Side	\$2,567	\$2,618	\$2,670	\$2,997	\$3,057	\$3,118	\$3,180	\$3,244	\$3,309	\$3,375
West Side (water and sewer)	\$2,824	\$2,880	\$2,938	\$2,997	\$3,057	\$3,118	\$3,180	\$3,244	\$3,309	\$3,375
West Side (water and pump-out)	\$2,375	\$2,423	\$2,471	\$2,520	\$2,570	\$2,621	\$2,673	\$2,726	\$2,781	\$2,837
Waterfront Lots	\$3,067	\$3,128	\$3,191	\$3,255	\$3,320	\$3,386	\$3,454	\$3,523	\$3,593	\$3,665
Lot Rental Revenue	\$452,782	\$461,791	\$477,774	\$510,864	\$521,079	\$531,467	\$542,041	\$552,925	\$564,005	\$575,271
Short Term Stay Lots										
Occupied Nights	0	0	0	0	0	0	0	0	0	0
Short Term Stay Lease Rate (per night)	\$60	\$61	\$62	\$63	\$64	\$65	\$66	\$67	\$68	\$69
Revenue from Short Term Stay Lots	\$0									
				\$0.00						
Hydro Revenue (per site)										
30 amp	\$318	\$324	\$330	\$337	\$344	\$351	\$358	\$365	\$372	\$379
50 amp	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Revenue from Hydro Rates	\$55,014	\$56,052	\$57,090	\$58,301	\$59,512	\$60,723	\$61,934	\$63,145	\$64,356	\$65,567
Shower and Laundry	\$1,430	\$1,459	\$1,488	\$1,518	\$1,548	\$1,579	\$1,611	\$1,643	\$1,676	\$1,710
Boat Docking Fee	\$19,211	\$19,595	\$19,987	\$20,387	\$20,795	\$21,211	\$21,635	\$22,068	\$22,509	\$22,959
Boat Trailer Storage	\$4,080	\$4,162	\$4,245	\$4,330	\$4,417	\$4,505	\$4,595	\$4,687	\$4,781	\$4,877
Trailer Park Day Use Rates	\$0									
Miscellaneous Revenue	\$5,989	\$6,109	\$6,231	\$6,356	\$6,483	\$6,613	\$6,745	\$6,880	\$7,018	\$7,158
Total Revenue	\$538,506	\$549,168	\$566,815	\$601,756	\$613,834	\$626,098	\$638,561	\$651,348	\$664,345	\$677,542

	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Revenue										
Number of Lots										
Existing Lots	173	173	173	173	173	173	173	173	173	173
East Side	86	86	86	86	86	86	86	86	86	86
West Side (water and sewer)	51	51	51	51	51	51	51	51	51	51
West Side (water and pump-out)	23	23	23	23	23	23	23	23	23	23
Waterfront Lots	13	13	13	13	13	13	13	13	13	13
Additional Lots										
East Side	0	0	0	0	0	2	2	2	2	2
West Side	4	4	4	4	4	5	5	5	5	5
Rental Rate										
East Side	\$3,443	\$3,512	\$3,582	\$3,654	\$3,727	\$3,802	\$3,878	\$3,956	\$4,035	\$4,116
West Side (water and sewer)	\$3,443	\$3,512	\$3,582	\$3,654	\$3,727	\$3,802	\$3,878	\$3,956	\$4,035	\$4,116
West Side (water and pump-out)	\$2,894	\$2,952	\$3,011	\$3,071	\$3,132	\$3,802	\$3,878	\$3,956	\$4,035	\$4,116
Waterfront Lots	\$3,738	\$3,813	\$3,889	\$3,967	\$4,046	\$4,127	\$4,210	\$4,294	\$4,380	\$4,468
Lot Rental Revenue	\$598,423	\$610,417	\$622,588	\$635,086	\$647,761	\$688,585	\$702,356	\$716,474	\$730,785	\$745,456
Short Term Stay Lots										
Occupied Nights	0	0	0	0	0	0	0	0	0	4
Short Term Stay Lease Rate (per night)	\$70	\$71	\$72	\$73	\$74	\$75	\$77	\$79	\$81	\$83
Revenue from Short Term Stay Lots	\$0	\$31,955								
Hydro Revenue (per site)										
30 amp	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
50 amp	\$746	\$761	\$776	\$792	\$808	\$824	\$840	\$857	\$874	\$892
Revenue from Hydro Rates	\$132,046	\$134,687	\$137,381	\$140,129	\$142,931	\$148,261	\$151,226	\$154,251	\$157,336	\$160,482
Shower and Laundry	\$1,744	\$1,779	\$1,815	\$1,851	\$1,888	\$1,926	\$1,965	\$2,004	\$2,044	\$2,085
Boat Docking Fee	\$23,418	\$23,886	\$24,364	\$24,851	\$25,348	\$25,855	\$26,372	\$26,899	\$27,437	\$27,986
Boat Trailer Storage	\$4,975	\$5,075	\$5,177	\$5,281	\$5,387	\$5,495	\$5,605	\$5,717	\$5,831	\$5,948
Trailer Park Day Use Rates	\$0									
Miscellaneous Revenue	\$7,301	\$7,447	\$7,596	\$7,748	\$7,903	\$8,061	\$8,222	\$8,386	\$8,554	\$8,725
Total Revenue	\$767,907	\$783,291	\$798,921	\$814,946	\$831,218	\$878,183	\$895,746	\$913,731	\$931,987	\$982,637

Figure A.2

Detailed Cash Flows - Operating Costs

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Operating Costs										
Wages	\$150,600	\$153,612	\$156,684	\$159,818	\$163,014	\$166,275	\$169,600	\$172,992	\$176,452	\$179,981
Overtime	\$6,939	\$7,078	\$7,219	\$7,364	\$7,511	\$7,661	\$7,814	\$7,971	\$8,130	\$8,293
Employment Insurance	\$3,536	\$3,607	\$3,679	\$3,753	\$3,828	\$3,905	\$3,983	\$4,062	\$4,144	\$4,226
Canada Pension Plan	\$7,519	\$7,670	\$7,823	\$7,980	\$8,139	\$8,302	\$8,468	\$8,637	\$8,810	\$8,986
Employer Health Tax	\$2,963	\$3,022	\$3,083	\$3,144	\$3,207	\$3,271	\$3,337	\$3,403	\$3,471	\$3,541
Omers Pension	\$4,580	\$4,671	\$4,765	\$4,860	\$4,957	\$5,056	\$5,157	\$5,261	\$5,366	\$5,473
Group Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Telecommunications	\$3,700	\$3,774	\$3,849	\$3,926	\$4,005	\$4,085	\$4,167	\$4,250	\$4,335	\$4,422
Miscellaneous Expenses	\$3,060	\$3,121	\$3,184	\$3,247	\$3,312	\$3,378	\$3,446	\$3,515	\$3,585	\$3,657
Janitorial Supplies	\$3,060	\$3,121	\$3,184	\$3,247	\$3,312	\$3,378	\$3,446	\$3,515	\$3,585	\$3,657
Maintenance Supplies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Hydro	\$5,014	\$5,052	\$5,090	\$5,128	\$5,166	\$5,204	\$5,242	\$5,280	\$5,318	\$5,356
Propane - Bulk	\$510	\$520	\$531	\$541	\$552	\$563	\$574	\$586	\$598	\$609
Water Utilities	\$15,000	\$15,300	\$15,606	\$15,918	\$16,236	\$16,551	\$16,866	\$17,181	\$17,496	\$17,811
Electrical	\$10,000	\$10,200	\$10,404	\$10,612	\$10,824	\$11,041	\$11,262	\$11,487	\$11,717	\$11,951
Stormwater (Drainage) & Roads	\$8,000	\$8,160	\$8,323	\$8,490	\$8,659	\$8,833	\$9,009	\$9,189	\$9,373	\$9,561
Contract Allocation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Dock Maintenance & Repair	\$5,100	\$5,202	\$5,306	\$5,412	\$5,520	\$5,631	\$5,743	\$5,858	\$5,975	\$6,095
Garbage Collection	\$5,100	\$5,202	\$5,306	\$5,412	\$5,520	\$5,631	\$5,743	\$5,858	\$5,975	\$6,095
Security	\$15,300	\$15,606	\$15,918	\$16,236	\$16,561	\$16,892	\$17,230	\$17,575	\$17,926	\$18,285
Building Maintenance and Repair	\$15,300	\$15,606	\$15,918	\$16,236	\$16,561	\$16,892	\$17,230	\$17,575	\$17,926	\$18,285
Alarm Monitoring	\$510	\$520	\$531	\$541	\$552	\$563	\$574	\$586	\$598	\$609
Operating Equipment Maintenance	\$4,590	\$4,682	\$4,775	\$4,871	\$4,968	\$5,068	\$5,169	\$5,272	\$5,378	\$5,485
Grounds Maintenance	\$8,160	\$8,323	\$8,490	\$8,659	\$8,833	\$9,009	\$9,189	\$9,373	\$9,561	\$9,752
City Property Tax	\$20,400	\$20,808	\$21,224	\$21,649	\$22,082	\$22,523	\$22,974	\$23,433	\$23,902	\$24,380
Water Infrastructure - Short	\$15,000	\$15,300	\$15,606	\$15,918	\$16,236	\$16,551	\$16,866	\$17,181	\$17,496	\$17,811
Water Infrastructure - Mid	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Infrastructure - Long	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Operating Expenses	\$363,941	\$371,158	\$378,498	\$386,138	\$393,904	\$410,330	\$418,533	\$426,876	\$435,362	\$443,992
Operating Surplus / (Shortfall)	\$174,565	\$178,010	\$188,317	\$215,618	\$219,930	\$215,768	\$220,028	\$224,472	\$228,983	\$233,550

Operating Costs	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Wages										
Overtime	\$183,581	\$187,252	\$190,997	\$194,817	\$198,714	\$202,688	\$206,742	\$210,876	\$215,094	\$219,396
Employment Insurance	\$8,458	\$8,628	\$8,800	\$8,976	\$9,156	\$9,339	\$9,526	\$9,716	\$9,910	\$10,109
Canada Pension Plan	\$4,311	\$4,397	\$4,485	\$4,575	\$4,666	\$4,760	\$4,855	\$4,952	\$5,051	\$5,152
Employer Health Tax	\$9,166	\$9,349	\$9,536	\$9,727	\$9,922	\$10,120	\$10,322	\$10,529	\$10,739	\$10,954
Omers Pension	\$3,612	\$3,684	\$3,758	\$3,833	\$3,909	\$3,988	\$4,067	\$4,149	\$4,232	\$4,316
Group Benefits	\$5,583	\$5,694	\$5,808	\$5,924	\$6,043	\$6,164	\$6,287	\$6,413	\$6,541	\$6,672
Telecommunications	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expenses	\$4,510	\$4,600	\$4,692	\$4,786	\$4,882	\$4,980	\$5,079	\$5,181	\$5,285	\$5,390
Janitorial Supplies	\$3,730	\$3,805	\$3,881	\$3,958	\$4,038	\$4,118	\$4,201	\$4,285	\$4,370	\$4,458
Maintenance Supplies	\$3,730	\$3,805	\$3,881	\$3,958	\$4,038	\$4,118	\$4,201	\$4,285	\$4,370	\$4,458
Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Propane - Bulk	132,046	134,687	137,381	140,129	142,931	148,261	151,226	154,751	157,336	160,482
Water Utilities	\$622	\$634	\$647	\$660	\$673	\$686	\$700	\$714	\$728	\$743
Electrical	\$22,082	\$22,523	\$22,974	\$23,433	\$23,902	\$25,000	\$25,500	\$26,010	\$26,530	\$27,061
Stormwater (Drainage) & Roads	\$3,000	\$3,060	\$3,121	\$3,184	\$3,247	\$3,312	\$3,378	\$3,446	\$3,515	\$3,585
Contract Allocation	\$9,752	\$9,947	\$10,146	\$10,349	\$10,556	\$10,767	\$10,982	\$11,202	\$11,426	\$11,654
Dock Maintenance & Repair	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Garbage Collection	\$6,217	\$6,341	\$6,468	\$6,597	\$6,729	\$6,864	\$7,001	\$7,141	\$7,284	\$7,430
Security	\$6,217	\$6,341	\$6,468	\$6,597	\$6,729	\$6,864	\$7,001	\$7,141	\$7,284	\$7,430
Building Maintenance and Repair	\$18,651	\$19,024	\$19,404	\$19,792	\$20,188	\$20,592	\$21,004	\$21,424	\$21,852	\$22,289
Alarm Monitoring	\$18,651	\$19,024	\$19,404	\$19,792	\$20,188	\$20,592	\$21,004	\$21,424	\$21,852	\$22,289
Operating Equipment Maintenance	\$622	\$634	\$647	\$660	\$673	\$686	\$700	\$714	\$728	\$743
Grounds Maintenance	\$5,595	\$5,707	\$5,821	\$5,938	\$6,056	\$6,178	\$6,301	\$6,427	\$6,556	\$6,687
City Property Tax	\$9,947	\$10,146	\$10,349	\$10,556	\$10,767	\$10,982	\$11,202	\$11,426	\$11,654	\$11,888
Water Infrastructure - Short	\$24,867	\$25,365	\$25,872	\$26,390	\$26,917	\$27,456	\$28,005	\$28,565	\$29,136	\$29,719
Water Infrastructure - Mid	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Infrastructure - Long	\$23,902	\$24,380	\$24,867	\$25,365	\$25,872	\$0	\$0	\$0	\$0	\$0
Total Operating Expenses	\$508,851	\$519,027	\$529,408	\$539,996	\$550,796	\$571,502	\$582,931	\$594,590	\$606,481	\$618,611
Operating Surplus / (Shortfall)	\$259,056	\$264,264	\$269,513	\$274,949	\$280,422	\$306,681	\$312,815	\$319,141	\$325,506	\$364,026

Figure A.3
Detailed Cash Flows - Capital Costs

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Capital Costs										
Water Infrastructure - New Lots	\$0	\$0	\$47,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Infrastructure - New Lots	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Septic Evaluation	\$0	\$0	\$16,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Septic System (East Side)	\$0	\$0	\$310,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Septic System (West Side)	\$0	\$0	\$310,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Extension of Existing Sewer	\$0	\$0	\$90,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tanks 1-7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construct Gravel Road	\$0	\$0	\$70,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Road Refresh & Parking Resurfacing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Parking Area Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Electrical Infrastructure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New 50 Amp Service	\$0	\$0	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Upgrades										
New Trail	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fencing - Boat Storage	\$0	\$0	\$35,160	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fencing - Front Entrances	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Arrival Art	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Play Surface (Hard Surface Pad)	\$0	\$0	\$53,969	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Automated Gate Entry	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Centralized Dock	\$0	\$0	\$414,888	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other										
Expansion	\$0	\$0	\$26,838	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Armour Stone Edging	\$0	\$0	\$24,480	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Floating dock	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Amenities										
Bird / Bat Box	\$0	\$0	\$1,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Seating - Shelter / Gazebo	\$0	\$0	\$23,744	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Annual Tree Replacement	\$0	\$0	\$1,561	\$1,592	\$1,624	\$1,656	\$1,689	\$1,723	\$1,757	\$1,793
New Trees	\$0	\$0	\$45,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Dog Park	\$0	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Trailhead Signs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Street Signs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wayfinding	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Signage/Archway	\$0	\$0	\$4,624	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Disk Golf Holes	\$0	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Playground Upgrade	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Recreation Centre - Refresh	\$0	\$0	\$8,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Capital Costs	\$0	\$0	\$1,593,463	\$1,592	\$1,624	\$1,656	\$1,689	\$1,723	\$1,757	\$1,793
Operating Surplus / (Shortfall) Less Capital Cost	\$174,565	\$352,575	-\$1,052,571	-\$838,545	-\$620,239	-\$406,126	-\$187,788	\$34,962	\$262,188	\$493,945

Parcel

	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Capital Costs										
Water Infrastructure - New Lots	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Infrastructure - New Lots	\$41,828	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Septic Evaluation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Septic System (East Side)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Septic System (West Side)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Extension of Existing Sewer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tanks 1-7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construct Gravel Road	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,155,000
Road Refresh & Parking Resurfacing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Parking Area Development	\$830,589	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Electrical Infrastructure	\$1,912,148	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New 50 Amp Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Upgrades										
New Trail	\$26,962	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fencing - Boat Storage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fencing - Front Entrances	\$53,785	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Arrival Art	\$5,975	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Play Surface (Hard Surface Pad)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Automated Gate Entry	\$119,509	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Centralized Dock	\$495,830	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Boat										
Expansion	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Armour Stone Edging	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Floating dock	\$204,530	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Amenities										
Bird / Bat Box	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Seating - Shelter / Gazebo	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Annual Tree Replacement	\$1,828	\$1,865	\$1,902	\$1,940	\$1,979	\$2,019	\$2,059	\$2,100	\$2,142	\$2,185
New Trees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Dog Park	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Trailhead Signs	\$5,378	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Street Signs	\$5,067	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wayfinding	\$418	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Signage/Archway	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Disk Golf Holes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Playground Upgrade	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Recreation Centre - Refresh	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$27,957
Total Capital Costs	\$3,703,849	\$1,865	\$1,902	\$1,940	\$1,979	\$2,019	\$2,059	\$2,100	\$2,142	\$3,185,142
	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Operating Surplus / (Shortfall) Less Capital Cost	-\$2,950,848	-\$2,688,449	-\$2,420,838	-\$2,147,829	-\$1,869,387	-\$1,564,724	-\$1,253,968	-\$936,928	-\$613,564	-\$3,434,680

Parcel

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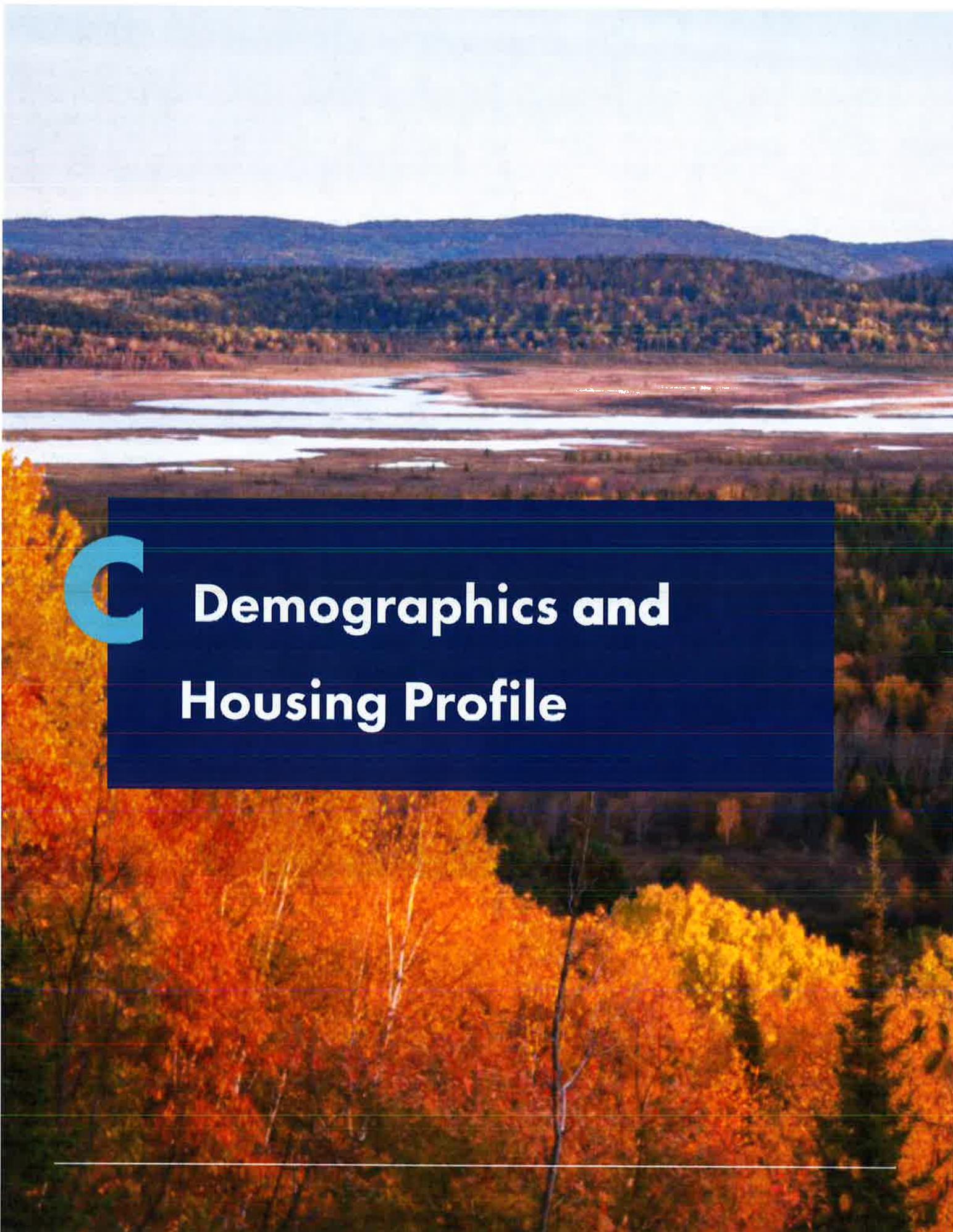
416-869-8264

250 University Avenue, #221, Toronto, Ontario, M5H 3E5





Demographics and Housing Profile



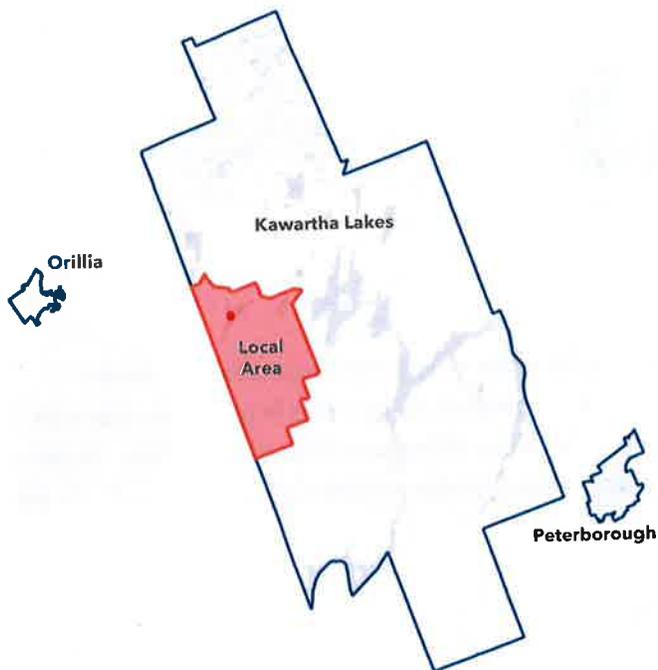


Demographic and Household Profile

To better understand the demographic and household profile of people living near Centennial Park, Parcel has examined the profile of a Local Area (shown in Figure 1 below) and the City of Kawartha Lakes. For comparison purposes, these profiles have been benchmarked to the nearby municipalities of Orillia and Peterborough, in addition to the province more generally. This analysis is based on information from the 2021 Census of Canada. It is important to note that the 2021 Census of Canada was conducted on May 11, 2021, which was prior to residents occupying Centennial Park for the season. Therefore, the information below excludes Centennial Park seasonal residents.

Figure 1

Demographic and Household Profile - Key Market Areas



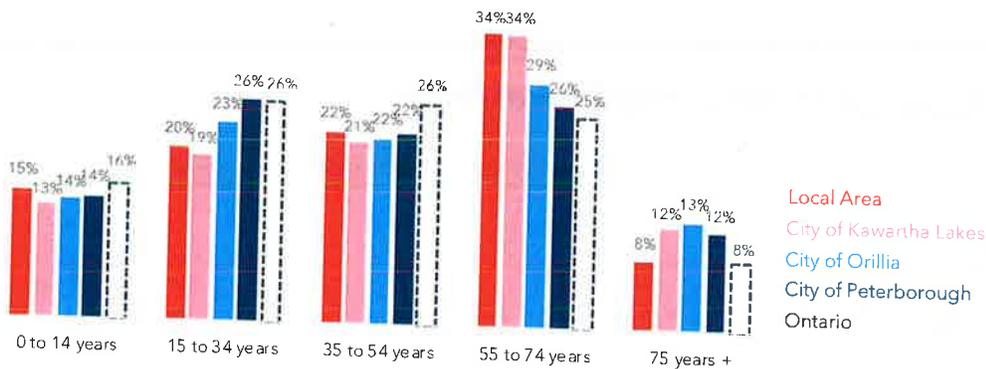
Source: Parcel.

Age & Housing Profile

Figure 2 highlights the age composition of each geography. Relative to Orillia, Peterborough and the province more generally, the Local Area and Kawartha Lakes have a higher proportion of residents ages 55 to 74. This coincides with a smaller proportion of younger residents between the ages of 15 to 34, particularly relative to trends across the province.

Similarly, Kawartha Lakes—and to a lesser extent the Local Area—has a smaller share of residents between the ages of 35 and 54. As a popular retirement and cottage destination that is mostly rural, it is not surprising that the area is largely comprised of older adults.

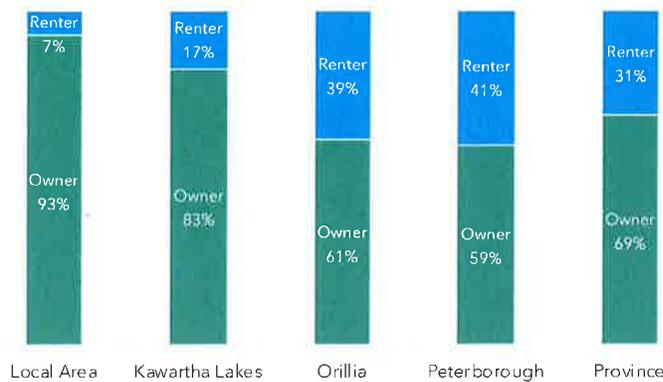
Figure 2
Age Distribution of Residents



Source: Parcel based on data from Statistics Canada

Relative to other geographies, the Local Area and Kawartha Lakes also has a more significant share of owner-households. In particular, a mere 7% of households in the Local Area rent their homes. This largely coincides with the age profile and rural composition of the area. Notwithstanding obvious differences from the province, the lack of renter households in the Local Area and Kawartha Lakes is heightened relative to both Orillia and Peterborough.

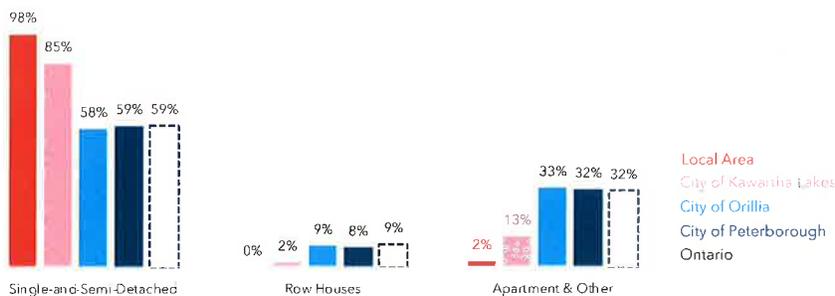
Figure 3
Tenure of Private Households



Source: Parcel based on data from Statistics Canada.

A lack of renter households in the Local Area and Kawartha Lakes can also be explained by the existing composition of households in these areas. Figure 4 shows that upwards of 85% of housing in these areas is comprised of single- and semi-detached housing while less than 13% is occupied by apartments and other formats. By comparison, housing in Orillia and Peterborough incorporates a more diverse housing complement, including row housing and apartment formats.

Figure 4
Private Dwellings by Structure Type

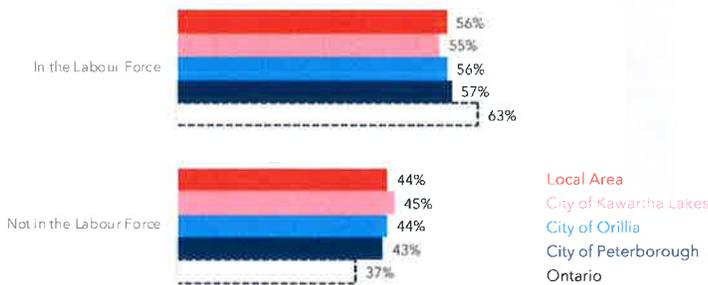


Source: Parcel based on data from Statistics Canada.

The older age profile of the Local Area and Kawartha Lakes residents coincides with labour force trends shown in Figure 5. Relative to the province, a smaller share of persons are currently in the labour force. This is likely

influenced by the large share of older residents (those over 55) in each of these geographies, or individuals who are of retirement age.

Figure 5
Labour Force Participation

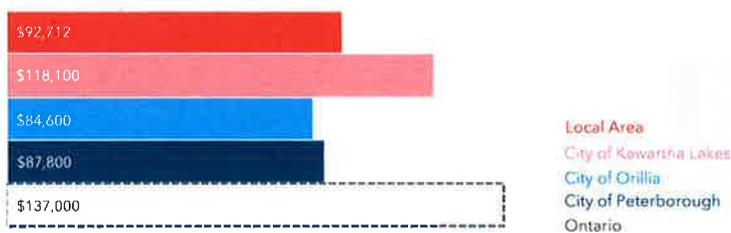


Source: Parcel based on data from Statistics Canada.

Income

Both the Local Area and the City of Kawartha Lakes have household and per capita incomes below that of the province. The household income of Kawartha Lakes is 16% below the province. More significantly, the household income of the Local Area is some 48% below the provincial average.

Figure 6
Average Household Incomes (2020)



Source: Parcel based on data from Statistics Canada.

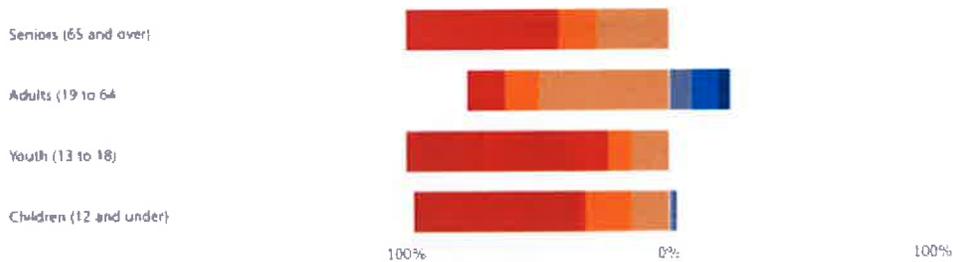
D Summary of Community Consultation

Note: to view the detailed summary of responses with percentages please visit: <http://tinyurl.com/mwfy4t3s>

1. Please indicate how many of the following age groups make up your household (including yourself):

[More Details](#)

0 1 2 3 4 5+

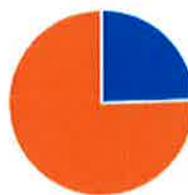


2. Have you visited or stayed at any Trailer Parks in and around Kawartha Lakes other than Centennial Trailer Park?

[More Details](#)

[Insights](#)

Yes 17
No 52



3. If you visited other trailer parks tell us which one(s) and what you enjoyed about them:

[More Details](#) [Insights](#)

16
Responses

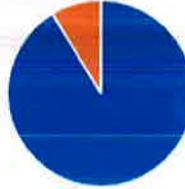
Latest Responses

16 respondents (50%) answered Park for this question.



4. Have you ever visited or stayed at Centennial Trailer Park in Kirkfield?

[More Details](#)



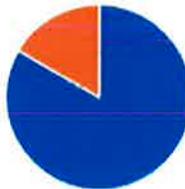
5. Are you aware that there is a municipal trailer park in Kirkfield, Centennial Trailer Park?

[More Details](#)



6. Would you be interested in more information on the Centennial Trailer Park?

[More Details](#)



7. How did you find out about Centennial Trailer Park?

[More Details](#) [Insights](#)

● We have been visiting the park f	15
● Word of mouth	3
● Friends	20
● Family (generational)	14
● Online (e.g. Camping Ontario, K	5
● Other	6



8. Indicate how you primarily use the park:

[More Details](#) [Insights](#)

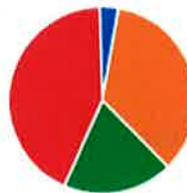
● Seasonal Trailer User	63
● Guest of Trailer Park Occupant	0



9. How long have you been an occupant at the park?

[More Details](#) [Insights](#)

● Our first year	2
● 1 to 4 years	22
● 5 to 9 years	12
● Over 10 years	27



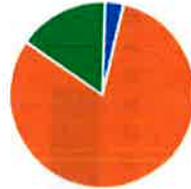
10. How long have you been coming to the park as a guest?

Our first year	0
1 to 4 years	0
5 to 9 years	0
Over 10 years	0

11. How many people occupy your Trailer?

[More Details](#) [Insights](#)

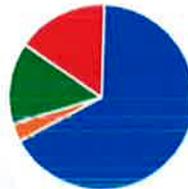
1	2
2 to 4	51
5+	10



12. When you visit the park, how long do you usually stay?

[More Details](#) [Insights](#)

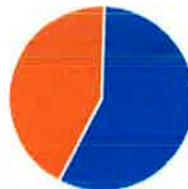
Weekends mostly	42
Weekdays mostly	2
I stay at the Trailer for the entire	9
Other	10



13. Which side of the park do you reside on?

[More Details](#) [Insights](#)

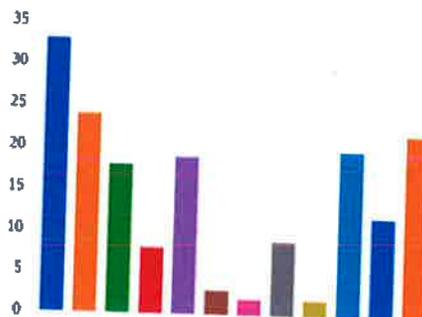
East	36
West	27



14. Indicate what you like best about the park today:

[More Details](#)

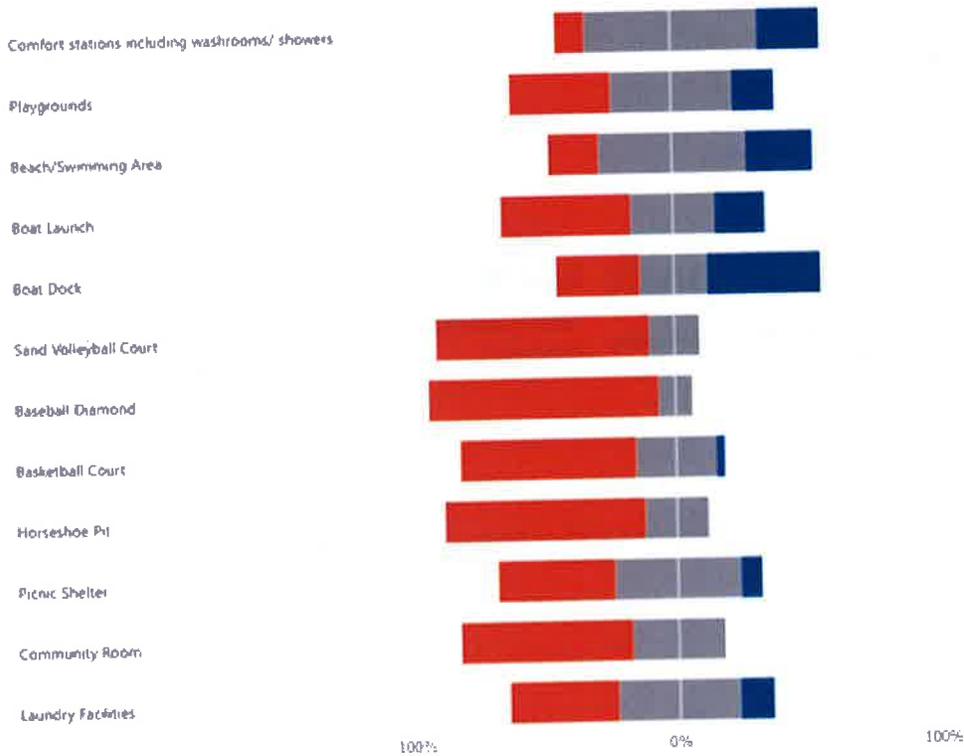
Comfort stations including wash	33
Playgrounds	24
Beach/Swimming Area	18
Boat Launch	8
Boat Docking	19
Sand Volleyball Court	3
Baseball Diamond	2
Basketball Court	9
Horseshoe Pit	2
Picnic Shelter	20
Community Room	12
Other	22



15. How often do you use these park features?

[More Details](#)

■ Never ■ Sometimes ■ All the time



16. Sustainability and low impact development features such as bioswales, mow-free zones, and naturalized areas offer strategies for managing stormwater and reducing our impact on the environment. How important are these sustainable design features to you in the future planning of the trailer park?

[More Details](#)

[Insights](#)

Very Important	8
Important	17
Somewhat Important	26
Not Important	12



17. Is there an element(s), feature(s) or improvement(s) that, in your opinion, **should** be incorporated into the future planning concept?

[More Details](#) [Insights](#)

48

Responses

Latest Responses

12 respondents (25%) answered **park** for this question.



18. Is there an element(s), feature(s) or improvement(s) that, in your opinion, **should not** be incorporated into the future planning concept?

[More Details](#) [Insights](#)

29

Responses

Latest Responses

19. Which of these programs would you participate in if they were offered by The Trailer Park?

[More Details](#)

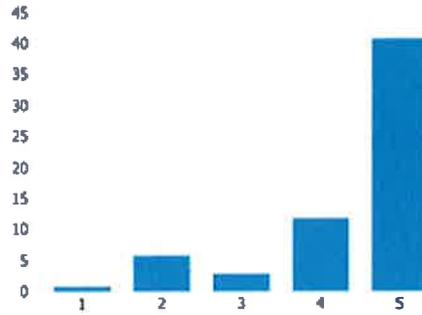
Darts	22
Cards	22
Swimming	24
Horse shoes	17
No, I am not interested in particip	21
Other	8



20. To what degree do you feel safe while in the park?

[More Details](#) [Insights](#)

4.37
Average Rating



21. Centennial Park employs a security service for weekend evening and night, coverage. Please provide any feedback regarding the security service.

[More Details](#) [Insights](#)

63
Responses

Latest Responses

"good to have but cant really help in an altercation."

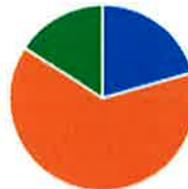
16 respondents (25%) answered security for this question

Security and compliance park occupants Honestly security
 security has been older golf cart no security waste of time security necessary
 Security is a problem time security park Security at night
 sense of security security guard security service night weekend security
 security is very fragile Security has been great

22. Please describe the overall cleanliness of the on-site washrooms:

[More Details](#) [Insights](#)

● Excellent	13
● Acceptable	40
● Unacceptable	10



23. Please explain why:

[More Details](#) [Insights](#)

9

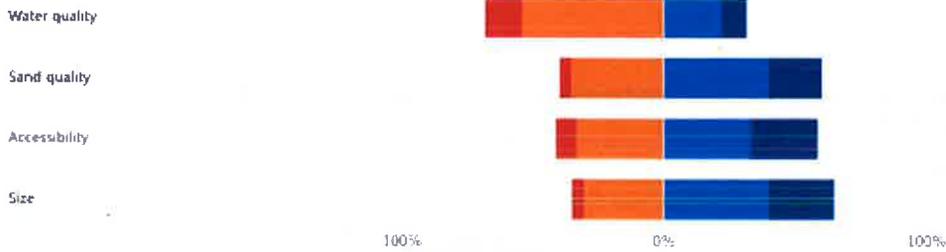
Responses

Latest Responses

24. How would you rate the condition of the beach?

[More Details](#)

Excellent Good Fair Poor



25. Do you have any feedback regarding the beach? If so, please explain.

[More Details](#) [Insights](#)

45

Responses

Latest Responses

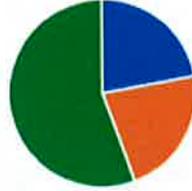
12 respondents (27%) answered **area** for this question



26. Do you rent a dock slip? How are the dock conditions?

[More Details](#) [Insights](#)

- Yes, I rent the dock slip and doc... 14
- Yes, I rent the dock slip and doc... 14
- No, I do not rent the dock slip 35



27. Please provide your feedback on dock conditions:

[More Details](#) [Insights](#)

39
Responses

Latest Responses

18 respondents (46%) answered dock for this question.

Word cloud for question 27. The most prominent word is "dock". Other words include: "half of our docks", "docks are in a state", "East side and the boatdock bolts", "poor condition supports of docks", "dock renters", "boat launch", "dangerous", "docks are uneven", "dock floats", "Goose poop", "launch dock", "entire dock", "docks are unstable", "dock is terrible", "close from another dock", "docks seem to be fine", "good".

28. What is your experience with Kawartha Lakes park staff?

[More Details](#) [Insights](#)

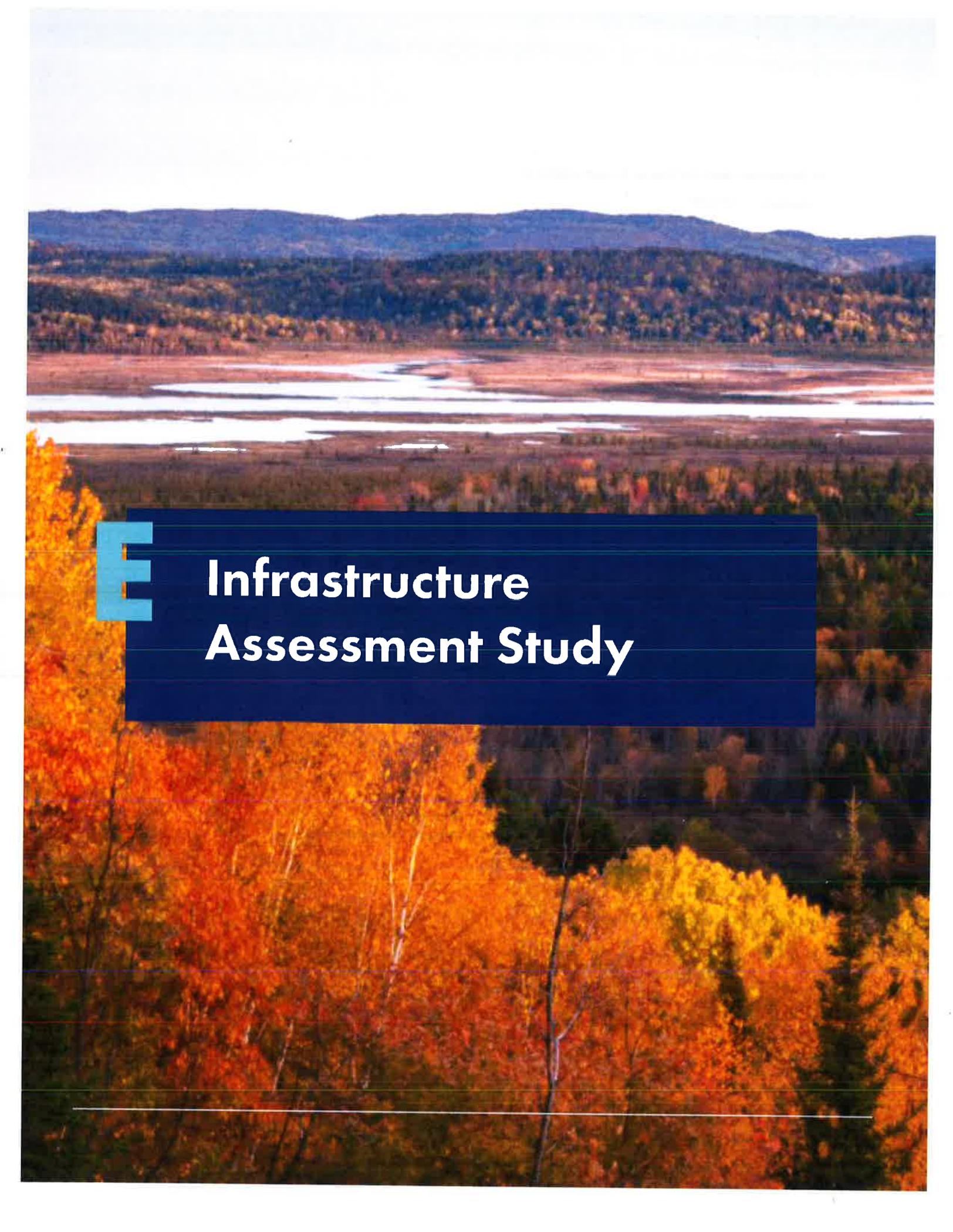
63
Responses

Latest Responses

"very easy to talk too, will help you if they can."

21 respondents (33%) answered good for this question.

Word cloud for question 28. The most prominent words are "friendly", "good", and "staff". Other words include: "staff at the park", "staff is always polite", "staff are excellent", "staff is friendly", "helpful", "Staff is great", "park staff", "good experience", "staff are pleasant", "good people", "maintenance staff", "staff have always been good", "office staff", "staff are very lazy", "issues with the staff", "staff are amazing", "satisfied with the staff".



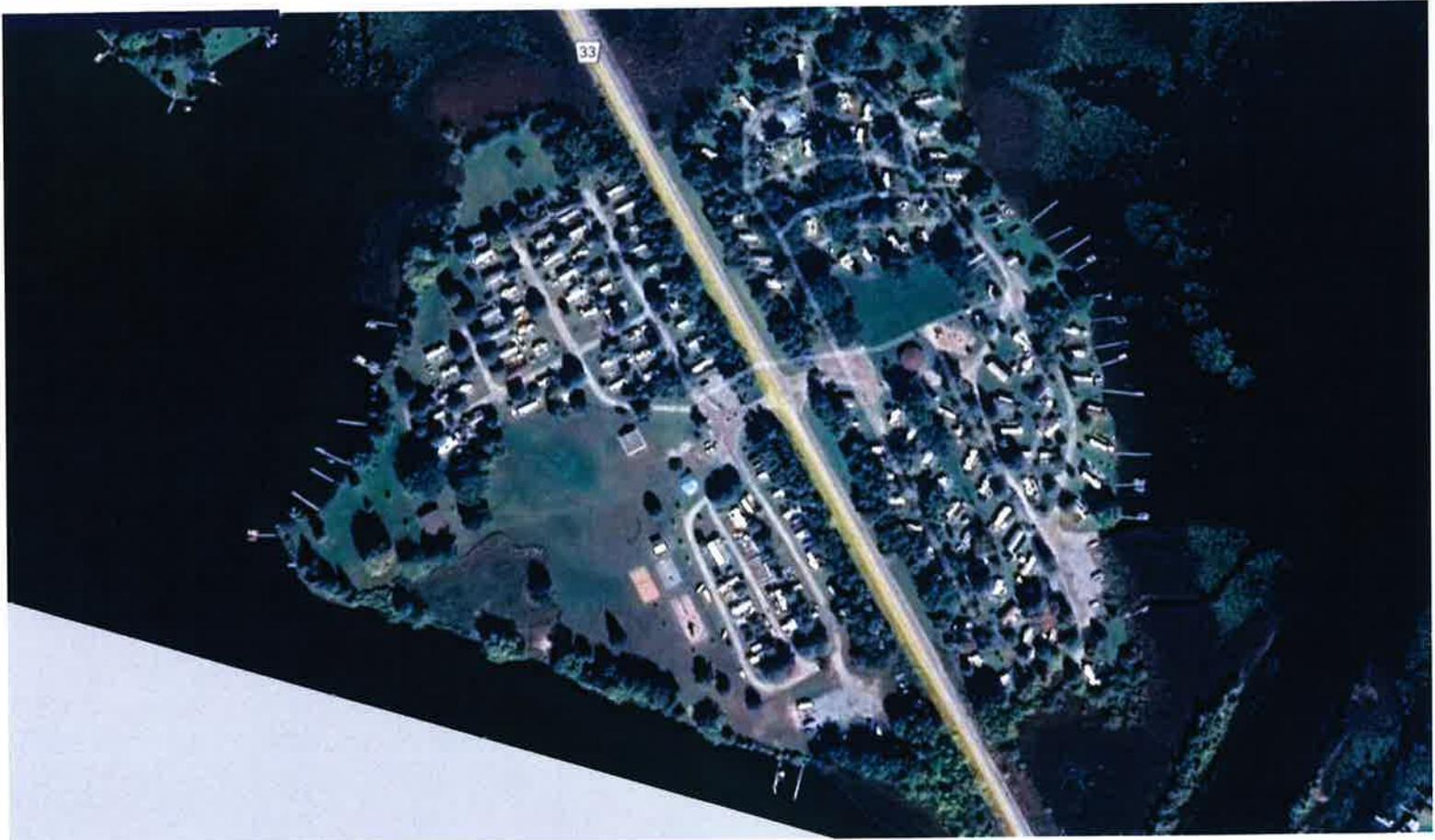
E

Infrastructure Assessment Study



Centennial Trailer Park Master Plan – Infrastructure Assessment Study

GMBP File No. 723054
April 2024



VERSION LOG

Version	Date	Author(s)	Reviewed By	Description
1	February 16, 2024	Benjamin Peachman, P.Eng.	Matthew Fisher, P.Eng.	Issued for Review
2	March 13, 2024	Benjamin Peachman, P.Eng.	Matthew Fisher, P.Eng.	Issued for Review
3	April 3, 2024	Benjamin Peachman, P.Eng.	Matthew Fisher, P.Eng.	Issued for Review



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APPENDIX B COST ESTIMATES

1 INTRODUCTION AND BACKGROUND

GM BluePlan Engineering (GMBP) was retained by SGL Planning & Design Inc. (SGL) to complete an Infrastructure Assessment Study (IAS) in support of the Centennial Trailer Park Master Plan (Centennial TPMP). Centennial Trailer Park is a municipally-owned seasonal trailer park located at 943 and 944 Centennial Park Road on Canal Lake in the City of Kawartha Lakes. The property was acquired from the federal government in 1961 and currently has 173 sites that can accommodate trailers up to 40 feet in length. The park is operational from May to October with access to the park limited during the off-season. The park is approximately 12.8 hectares in area and provides a variety of amenities to the residents such as washrooms and showers, communal laundry facilities, municipal potable water, septic treatment, and electrical servicing.

1.1 Purpose and Objectives

The City of Kawartha Lakes (City) initiated the Centennial TPMP to address the continued operation of Centennial Trailer Park over the next 20 years including the identification of areas of necessary rehabilitation, replacement, or expansion. The IAS will provide an overview of the following tasks completed in support of the Centennial TPMP:

- Completion of a topographic survey of the existing property in order to assist in developing alternative concept plans for the Centennial Trailer Park;
- Review of background documents on existing infrastructure & policies;
- Assessment of existing infrastructure (water, wastewater, stormwater management, electrical servicing, roads, and telecommunications) based on available information;
- Review of alternative concept plans for the Centennial Trailer Park from a servicing perspective;
- Identification of a preferred concept plan for the Centennial Trailer Park; and,
- Completion of preliminary cost estimates and phasing recommendations for infrastructure necessary to implement the preferred concept plan.

1.2 Location and Site Layout of Centennial Trailer Park

The Centennial Trailer Park is an irregular-shaped parcel which is bisected by Centennial Park Road. The 'east section' and 'west section' of the park are approximately 6.3 and 6.5 hectares in area, respectively. The park is located on an island in Canal Lake with access by car available from Centennial Park Road. Refer to **Figure 1** for the base plan of the Centennial Trailer Park which details the existing site layout at the date of the survey's completion. The topographic survey of the park is provided in **Appendix A**.

As shown, the east half of the park includes Lots 1 to 99, along with a communal washroom and laundry facility near the central portion of the park. A maintenance yard, water treatment building, and separate maintenance building are also located on the east side of the site. The west half of the site includes Lots 200 – 250 and Lots 301 – 323. This half of the park includes additional green space, the park office, a baseball diamond, a picnic shelter, a community hall, a basketball court, a beach, a volleyball pit, and a playground. A communal washroom is also centrally located near the park office.

LEGEND	
	WATERLINE
	LOT PROPERTY LINE
	EX. GRAVEL
	EX. ASPHALT
	EX. RECREATION VEHICLE HOME
	EX. HYDROELECT. HOODRUP
	EX. DDCP

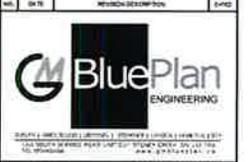


NOTES

BENCH MARKS

THESE PLANS AND SPECIFICATIONS SHALL BE USED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SHALL BE SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

NO.	DATE	REVISIONS/DESCRIPTION	BY



CENTENNIAL TRAILER PARK
CITY OF KAWARTHA LAKES

BASE PLAN			
DESIGNED BY	APPROVED BY	PROJECT NO.	Figure 1
A.K.		72054	
DRAWN BY	DATE	SCALE	
	NOVEMBER 2022	1:100	

2 DESIGN BASIS

The following sub-sections provide an overview of the design basis for evaluation of the various infrastructure assets within the Centennial Trailer Park. These sub-sections will review the following:

- Design Criteria
- Existing Infrastructure
- Population Projections, Water Demand, and Wastewater Flow Projections

2.1 Design Criteria

A review of servicing design criteria for the City of Kawartha Lakes (CKL) was conducted. Servicing design criteria are intended as a guide to provide a clear engineering basis for new development design as well as to establish a consistent guideline of minimum engineering standards. The following documents were reviewed as part of this exercise:

- 1) City of Kawartha Lakes (CKL) Infrastructure Guidelines – 2023 (Water)
- 2) CKL Infrastructure Guidelines – 2023 (Sanitary)
- 3) CKL Infrastructure Guidelines – 2023 (Storm and Stormwater)
- 4) CKL Infrastructure Guidelines – 2023 (Roads)

These documents were reviewed to confirm the design criteria applicable to the re-development of any areas proposed within the Centennial Trailer Park as a function of this master plan.

It is worth noting that these design criteria are typically used to support the construction of new residential, commercial, industrial, or institutional developments. Therefore, as the Centennial Trailer Park provides municipal servicing and access for mobile homes; not all of the criteria will be applicable.

2.1.1 Water

Design criteria for estimating water supply demands are summarized in **Table 1**.

Table 1: Design Criteria for Estimating Future Water Demand

Parameter	Criteria	Source
Domestic water demand (residential)	450 L/capita/day	CKL Infrastructure Guidelines – 2023 (Water)
Population Density	2.3 people per unit (ppu)	
Maximum Day Factor	2.75	Table 3-1 (500 - 1000 people) from 'Design Guidelines for Drinking Water Systems' (MECP)
Peak Hour Factor	4.13	
Acceptable Operating Pressure Range	40 – 100 psi	CKL Infrastructure Guidelines – 2023 (Water)
Preferred Operating Pressure Range	50 – 70 psi	

Generally, watermains are to be sized to carry the greater capacity of the maximum day plus fire flow or the peak hour demand. As it is assumed that the Centennial Trailer Park is applicable to rural fire fighting requirements; which generally would involve pump trucks using lake water to fight fires, the watermain sizing is based on providing sufficient peak hourly domestic water demand to the residents.

2.1.2 Wastewater

Design criteria for estimating wastewater flows are summarized in Table 2.

Table 2: Design Criteria for Estimating Future Wastewater Flows

Parameter	Criteria	Source
Sewage generation rate (residential)	450 L/capita/day	CKL Infrastructure Guidelines – 2023 (Sanitary)
Infiltration Flow	0.26 L/sec/ha	
Minimum Acceptable Pipe Slope	0.5%	
Acceptable Velocity Range	0.6 – 3.0 m/s	

Per the City’s Design Criteria, the peak design flow that the wastewater collection system must be able to convey is as follows:

$$Q = \frac{P \times q \times M}{86.4} + IA$$

P = population (thousands)

Q = Average daily per capita domestic flow (L/cap/day)

M = Harmon peaking factor

I = Unit of peak extraneous flow (infiltration)

A = Gross tributary area (ha)

The Harmon peaking factor calculations is as follows:

$$M = \left[1 + \frac{14}{4 + P^{1/2}} \right]$$

P = population (thousands)

M = ratio of peak flow to average flow

M_{Max} = Maximum of 3.8

M_{Min} = 2.0

2.1.3 Stormwater

As outlined in the City’s Infrastructure Guidelines for Storm and Stormwater (2023), the following stormwater management (SWM) and drainage criteria are applicable to the Centennial Trailer Park.

- 1) **Quantity Control (Flood protection):** Post-to-pre quantity control shall be provided unless otherwise directed by the City or Conservation Authority.
- 2) **Quality Control:** All new SWM facilities should provide at a minimum the Enhanced level of protection (long-term average removal of 80% of suspended solids) as specified in the SWM Planning and Design Manual (MECP, 2003). In addition, it should be demonstrated that through an evaluation of anticipated changes in phosphorus loadings between pre-development and post-development conditions how the phosphorus loadings shall be minimized.
- 3) **Erosion Control:** Developments ≥ 5 hectares in drainage area shall require erosion control measures to be implemented whereby the 25 mm 4 hr Chicago storm shall be stored and released over a minimum 24 hour period.

- 4) Water Balance: Developments ≥ 5 hectares in drainage area shall provide post-to-pre infiltration on-site where soils permit.
- 5) Minor Conveyance System: Storm sewers will be sized to convey the 5-year event.
- 6) Major Conveyance System: The major system shall be designed to safely convey in excess of the minor system including the larger of the 100-year storm and Regional Timmins Storm via streets, open channels, storm sewers, walkways, and approved drainage easements to a safe outlet without flooding private property.
- 7) Culverts: Culverts must be designed to prevent overtopping during the 100-year design storm.

2.1.4 Roads

The City provides design standards for municipal roads, entrances, streetscaping, utilities and streetlighting within the Infrastructure Guidelines for Roads (2023). However, as the Centennial Trailer Park provides access to its internal lots via gravel roadways, the municipal road design standards are largely not applicable. However, the existing gravel access road and lot driveway designs were provided within an as-built (Greer Galloway & Associates, 1979) for the east half of the park and are listed as follows:

- Gravel roadways
 - 6" of Granular 'B'
 - 2" of Limestone screening
- Campsite driveway
 - 4" of Granular 'B'
 - 2" of Limestone screening

2.2 Existing Infrastructure

Background documents pertaining to the existing infrastructure within the Centennial Trailer Park were provided to the project team by the City and its contractors. The existing infrastructure assessment was completed based on information available at the time of this project's completion. A summary of the existing infrastructure assets, along with an assessment on their condition and remaining service life was completed and is outlined in the following sections.

2.2.1 Water Infrastructure

The Centennial Trailer Park's treated water system is supplied by a groundwater well located on the east side of the east portion of the park. The groundwater well is located adjacent to the water pump house, which is approximately 20 metres from the shoreline of Canal Lake. The water pump house contains the water treatment & pump equipment necessary to disinfect and distribute treated water throughout the park. The water pump house is supplied electricity by an underground electrical service with an emergency back-up generator supported by a propane tank.

The groundwater well is permitted under Permit to Take Water (PTTW) No. 5104-ABYRET, dated May 30, 2016. A summary of the authorized water takings under this PTTW is provided in **Table 3**. The PTTW allows a water taking of 200,000 litres per day (or 2.3 L/s) from May 1st to November 1st (which coincides

with the operating days of the park) with a peak allowable water taking of 280 litres per minute (4.7 L/s).

Table 3: Summary of PTTW No. 5104-ABYRET

Well Name	Type	Max. Taken per Minute	Max. Num. of Hrs. Taken per Day	Max. Taken per Day:	Max. Num. of Days Taken per Year
Well 1	Drilled well	280 litres (4.7 L/s)	24 hours	200,000 litres (2.3 L/s)	150
Total Taking				200,000 litres	

Based on the as-builts provided for the Centennial Trailer Park, it is estimated that the water system on the east half of the park was constructed around 1979 while the water system on the west half of the park was an extension of the east system and was constructed around 1987.

2.2.1.1 Treatment

Water treatment operations within the park are completed within the water pump house and involve mechanical filtration (via four WaterBetter filters), chlorination (via two chlorinators), and ultraviolet (UV) disinfection (via three UV disinfection filters with a total capacity of 60 GPM (3.8 L/s)) of the raw groundwater pulled from the well to achieve potable levels of drinking water.

The level of chlorination is completed to ensure that adequate disinfection levels are achieved throughout the park's treated water system based on the well's classification of Ground Water Under Direct Influence (GWUDI) for the source water. GWUDI is a classification meaning that the groundwater source (i.e., from the park's well) is located close enough to surface water (i.e., Canal Lake) to receive direct surface water recharge. Therefore, the groundwater source is considered at risk to certain contaminants not normally found in groundwater, but typically found in surface water. Water quality testing is completed by the City's contractor at locations throughout the park, as identified on **Figure 2**, to confirm that adequate disinfection is achieved for the GWUDI source water.

LEGEND	
	WATERLINE
	LOT PROPERTY LINE
	EX. GRAVEL
	EX. ASPHALT
	EX. RECREATION VEHICLE ROAD
	EX. HYDROELECTRIFICATION
	EX. DOCK
	EX. WATER DISTRIBUTION SYSTEM
	EX. WATER SHUT OFF VALVE
	EX. WATER LINE DRAIN
	WATER QUALITY SAMPLE LOCATION

- NOTES
1. ROADWAYS CONSTRUCTED WITH 100mm GRANULAR & 50mm LAYER ONE SCREENINGS
 2. CAMPSITE PARKING SITE CONSTRUCTED WITH 100mm GRANULAR & 50mm LAYER ONE SCREENINGS
 3. MINIMUM SEPARATION BETWEEN HYDRO AND WATER SERVICES IS 300mm



NOTES

BENCH MARKS:

IF A PORTION OF ANY EXISTING UTILITY OR STRUCTURE IS LOCATED IN AN AREA WHERE A NEW UTILITY OR STRUCTURE IS TO BE CONSTRUCTED, THE LOCATION OF THE EXISTING UTILITY OR STRUCTURE SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF KAWARTHA LAKES PRIOR TO CONSTRUCTION.

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ENGINEERING

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Tel: 519-885-1111 Fax: 519-885-1112
www.blueplan.ca

CENTENNIAL TRAILER PARK
CITY OF KAWARTHA LAKES

EX. WATER INFRASTRUCTURE			
DESIGNED BY	APPROVED BY	PROJECT NO.	Figure 2
A.E.	S.A.	2024	
REVISED BY	DATE	SCALE	
-	NOVEMBER 2023	1:100	

2.2.1.2 Distribution

Treated drinking water is distributed throughout the park via existing 50mm diameter (\emptyset) and 100mm \emptyset watermains, as shown on **Figure 2**. The 100mm \emptyset watermain extends as a spine distribution main from the water pump house on the east side of the park, across Centennial Park Road, to the west side of the park. Several smaller 50mm \emptyset watermains connect to the larger 100mm \emptyset watermain and convey treated water to the individual lots via local looping. Each individual campsite has a dedicated water hook-up for a trailer. In addition, the laundry room and communal washrooms on the east and west sides of the site are connected to the potable water system. There are several additional potable water connections on the west side of the park, specifically to the shed, to a communal water faucet north of the baseball diamond, and to the picnic shelter. As as-builts were available for the east side of the park but not for the west side of the park, a conceptual layout of the water system has been provided for the west side of the park based on the information available to the project team at the date of the project's completion. The exact location of the distribution network will need to be confirmed prior to any re-design.

2.2.1.3 Water Demand

As outlined in **Table 5**, the average daily water demand during the park's operational months (May to October) is approximately 2.1 L/s based on the estimated resident population of 398 persons and the City's design criteria. Based on the peaking factors identified in the City's design criteria, the maximum daily demand is 5.7 L/s and the peak hourly demand is 8.6 L/s.

As noted in Section 2.2.1, the PTTW allows for an average water taking of 2.3 L/s throughout the operational months of the trailer park with allowable temporary peak loading of up to 4.7 L/s.

As population within the park varies significantly throughout the season and the design criteria estimates for water demand are based upon water usage within a residential dwelling, it is anticipated that the water demand estimates calculated using the City's design criteria are overly conservative. Therefore, a review of the recorded water takings was completed in Section 2.3.2 to confirm the actual water demand typically encountered within the park.

2.2.2 Wastewater Infrastructure

The Centennial Trailer Park's wastewater treatment and collection system is split into two systems with a separate system located on the east and west sides of the park. Refer to **Figure 3** for the conceptual location of the wastewater infrastructure within the Centennial Trailer Park.

The east side of the park includes a septic system with a tank and bed of an approximate area of 1,032 square metres (24 metres in width, 43 metres in length). The septic system is located beneath the open space area within the center of the east half of the park which currently also includes a horseshoe pit and playground at-grade. Directly connected to the septic system via sewer is the communal washroom, shower, and laundry facility which is located adjacent to the playground. Upstream of the septic tank is a trailer dumping station where sewage pump trucks can discharge collected sewage into the septic system.



CITY OF KAWARTHA LAKES
KEY PLAN
NOT TO SCALE

NOTES

NO. DATE REVISION/DESCRIPTION

BENCH MARKS

UNDERSTANDING OF THE CONTRACTOR'S OBLIGATIONS AND RESPONSIBILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF KAWARTHA LAKES AND THE PROVINCE OF ONTARIO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF KAWARTHA LAKES AND THE PROVINCE OF ONTARIO.

BEFORE BEING USED FOR THE CONSTRUCTION OF THIS PROJECT, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF KAWARTHA LAKES AND THE PROVINCE OF ONTARIO.

NO.	DATE	REVISION/DESCRIPTION	BY

NO.	DATE	REVISION/DESCRIPTION	BY



CENTENNIAL TRAILER PARK
CITY OF KAWARTHA LAKES

EX. WASTEWATER
INFRASTRUCTURE

DESIGNED BY	APPROVED BY	PROJECT NO.	Figure 3
A.K.	E.	72024	
DATE	SCALE		
NOVEMBER 2023	1:100		



LEGEND

	WATER LINE
	LOT PROPERTY LINE
	EX. GRAVEL
	EX. ASPHALT
	EX. RECREATION VEHICLE HOME
	EX. HYDRO/ELECTRICAL
	EX. DOCK
	EX. WASTEWATER PIPE
	EX. CLASS 2 OPENWATER LOADING BAY

- FIXTURE SCHEDULE
- A. 10000 GAL CAPACITY SEPTIC TANK BY W.E. WILKINSON LTD. HAMILTON
 - B. SANITIZED SANITATION LEADS FOR FUTURE SANITATION STATION
 - C. 1200 GAL CAPACITY PUMP RANK BY W.E. WILKINSON LTD. 4750 HP PUMP SUPPLIED BY MICKER PUMP. THE PUMP IS TO TURN ON 1/16 FROM THE TANK BOTTOM AND IS TO TURN OFF 1/32 FROM THE TANK BOTTOM. THE HIGH WATER ALARM IS TO BE SET TO BE TRIGGERED 1/20 FROM BOTTOM OF TANK
 - D. 14 OUTLET DISTRIBUTION BOX BY W.E. WILKINSON LTD.



The west side of the park also includes a septic system with a tank and bed of an approximate area of 1,080 square metres (2 beds, each with a length of 30 metres and a width of 18 metres).

The septic system is located beneath an open space area within the center of the west half of the park which currently includes a baseball diamond and some landscaped areas. Directly connected to the septic system via sewer is the communal washroom which is located adjacent to the baseball diamond. Upstream of the septic tank is a trailer dumping station where sewage pump trucks can discharge collected sewage into the septic system. There is also a historical snack bar located southwest of the current office which has been recently used as a 'community hall'. The community hall has a septic tank and tile bed that infiltrates greywater from the appliances located within the building.

Based on a provided sewage system inspection report, the wastewater system on the east half of the park was installed in October 1978. Similar to the existing water systems at the Centennial Trailer Park, it is estimated based on the available as-builts that the wastewater system on the west half of the park was constructed around 1987 while the snack bar's wastewater system was installed in 1982.

2.2.2.1 Treatment

Records of the septic bed design and construction were limited in availability; however, the provided sewage system inspection report did identify that the septic tank for the east system is a 10,000 gallon system (2 x 5,000 gallon concrete tanks) with a septic bed of 945 linear metres comprised of PVC distribution pipes laid out in 31 runs of 30.5 metres. As noted, the approximate area of the septic bed on the east half of the park is 1,032 m². The inspection report for the septic system on the east side also identified that the septic bed is fed by a pump however no further details were available.

The snack bar's septic tank is a 950 gallon (3,600 L) concrete tank which discharges to a leaching bed of 94 linear metres comprised of 4" PVC distribution pipes laid out in 7 runs of 13.4 metres. The snack bar's wastewater system flows by gravity and does not require a pump chamber.

The septic system on the west half of the park had additional records available, albeit still limited. The septic tank for the west system is a 10,000 gallon (38 m³) concrete tank which discharges to a 1,000 gallon (3.8 m³) pump chamber equipped with a 4/10 HP Meyer Pump. The pump has the following set points:

- ON: when water level reaches 1.12 m from tank bottom
- OFF: when water level reaches 0.15 m from tank bottom
- High Water Level (HWL) ALARM: when water level reaches 1.27 m from tank bottom

The pump chamber discharges effluent via a 50mm \varnothing forcemain to a 14 outlet distribution box which feeds seven (7) leach lines in each bed (14 total). As noted, the approximate area of the septic bed is 1,080 m².

2.2.2.2 Collection

As noted in Section 2.2.2, the wastewater generated within the Centennial Trailer Park is treated by two septic systems located within the east and west parts of the park. However, how the wastewater is collected and conveyed to the septic systems is specific to the individual lot. Prior to discussing wastewater collection, the following two terms must be defined:

- 1) Greywater: refers to domestic wastewater generated from trailers (or other sources) within the Centennial Trailer Park, which does not include fecal contamination. Examples of greywater sources include sinks, showers, baths, washing machines, or dishwashers.
- 2) Blackwater: refers to domestic wastewater generated from trailers (or other sources) within the Centennial Trailer Park, which does include fecal contamination. Generally, the only source of blackwater are toilets.

There are three (3) types of wastewater collection for the lots within the Centennial Trailer Park, which are listed here, along with the applicable lots:

- 1) Full septic (a wastewater servicing connection is available on the lot and provides conveyance of greywater and blackwater to the septic system)
West side: Lots 200-250 (based on available records but requires field verification)
East side: None
- 2) Partial pump-out (a wastewater servicing connection is not available on the lot; however, it does include a leaching bed for the infiltration of greywater. A pump-out service is provided by the park for blackwater which gets discharged to the septic bed at the applicable trailer dumping station.)
West side: None
East side: Lots 8 - 12, 43, 44, 55, 60, 63, 64, & 69 (based on available records but requires field verification)
- 3) Full pump-out (a wastewater servicing connection is not available on these lots. Similarly, a leaching bed is also not available due to the proximity of the lot to the lakefront and/or other sensitive ecological features.)
West side: Lots 301 – 323
East side: 1 - 7, 13 – 42, 45 – 54, 56 – 59, 61, 62, 65 – 68, 70 – 99 (based on available records but requires field verification)

The pump-out procedure for the Centennial Trailer Park involves the resident leaving a pump tag in the centralized drop box once their trailer's holding tank approaches its capacity. The park's maintenance department completes pump-outs once a week for the collected tags and discharges the collected sewage into the septic bed.

2.2.2.3 Wastewater Flow Projections

As outlined in **Table 5**, the average daily flow during the park's operational months (May to October) is approximately 1.2 L/s for the east half of the park and 0.9 L/s for the west half of the park, based on the estimated resident population of 398 persons and the City's design criteria. Based on the Harmon peaking factor and infiltration allowance identified in the City's design criteria, the peak design flow for the east and west parts of the park are 4.5 L/s and 3.8 L/s, respectively.

As previously noted in Section 2.2.1.3, it is anticipated that the wastewater flow projections for the park, as calculated using the City's design criteria, may be overly conservative. Section 2.3 provides a review of the recorded water takings to confirm the actual water demand typically encountered within the park. While it is recognized that losses within the water distribution system mean that wastewater flows

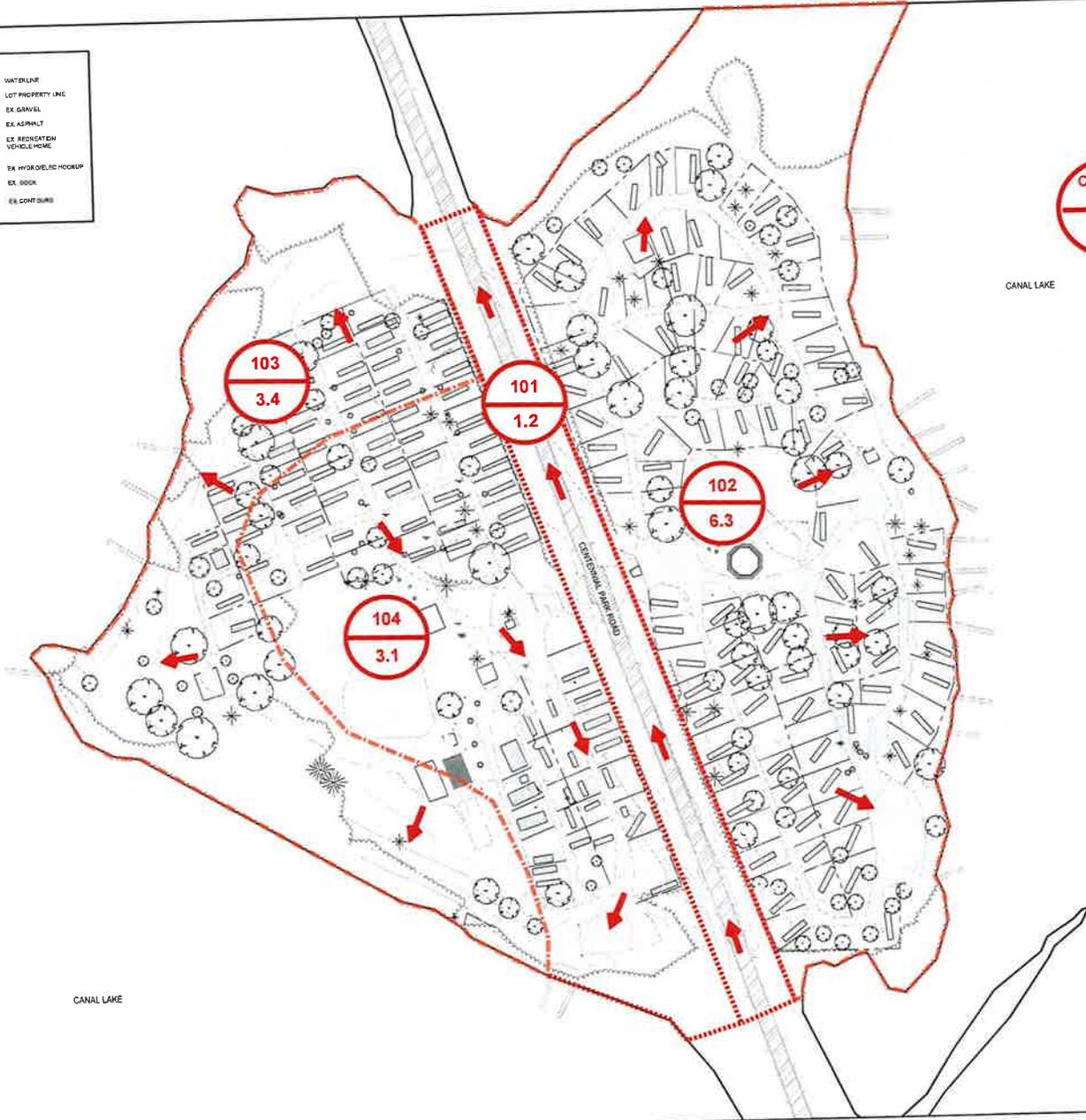


to the septic system will typically be lower than the recorded water takings, equating the two values (water takings and wastewater flows) provides a conservative estimate for wastewater flows.

2.2.3 Stormwater Infrastructure

As the Centennial Trailer Park does not have significant impervious areas (paved parking lots, large buildings, etc.) that could necessitate the need for sub-grade stormwater infrastructure, such as catch basins and drains, there is no known sub-grade stormwater conveyance or management assets within the park. The park has been graded to convey surface drainage overland towards Canal Lake and to ensure that nuisance ponding within the park does not occur. Refer to **Figure 4** for the identification of the existing drainage areas within the park, along with the overland flow direction for surface drainage. The purpose of identifying existing surface drainage patterns is to ensure that any proposed changes within the park stemming from the master plan recommendations consider these drainage patterns and ensure that the existing drainage strategy is maintained or adequately mitigated.

LEGEND	
	WATERLINE
	LOT PROPERTY LINE
	EX. GRAVEL
	EX. ASPHALT
	EX. RECREATION VEHICLE HOME
	EA. HYDROLOGIC CONTOUR
	EX. BOOK
	EA. CONTOUR



CANAL LAKE
 Overland drainage flow direction



NOTES

BENCH MARKS

THIS PLAN IS A PRELIMINARY DESIGN AND IS SUBJECT TO CHANGE WITHOUT NOTICE. THE CLIENT ACCEPTS RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED AND THE DESIGNER'S LIABILITY IS LIMITED TO THE PROFESSIONAL STANDARD OF CARE. THE DESIGNER IS NOT RESPONSIBLE FOR THE CONSTRUCTION OF THE PROJECT OR FOR THE PERFORMANCE OF THE PROJECT.

NO.	DATE	REVISIONS TO DRAWING	CHKD.



CENTENNIAL TRAILER PARK
 CITY OF KAWARTHA LAKES
 Existing Drainage Plan
 BASE PLAN WITH CONTOURS

DRAWN BY A.C.	APPROVED BY 	PROJECT NO. 7306A	Figure 4
DESIGNED BY 	DATE MAY 2022	SCALE 1:1000	

2.2.3.1 Drainage Areas

As detailed on **Figure 4**, the Centennial Trailer Park and Centennial Park Road have four (4) catchment areas which are further detailed in **Table 4**.

Table 4: Existing Drainage Areas

Catchment ID	Area (hectares)	Description
101	1.2	Comprises the right-of-way of Centennial Park Road which has a rural cross-section with grassed ditches that convey drainage northward to Canal Lake. This road is owned by the City of Kawartha Lakes.
102	6.3	Comprises the east half of the park. Surface drainage is conveyed overland eastward to Canal Lake via sheet flow. Culverts are installed under gravel roads where required to facilitate overland drainage.
103	3.4	Comprises the lakefront portion of the west half of the park. Surface drainage is conveyed overland westward to Canal Lake via sheet flow. This catchment contains approximately 23 lots but is primarily landscaped.
104	3.1	Comprises the internal portion of the west half of the park, including approximately 51 lots and the open space area near the baseball diamond. Surface drainage is conveyed overland southward, primarily along the north-south gravel roads that lead to the south parking lot. Surface drainage ultimately flows to Canal Lake to the south.
TOTAL	14.0	

2.2.3.2 Conveyance & Outlets

As previously noted, the conveyance of drainage within the park is achieved through a combination of overland sheet flow, at-grade culverts, ditches, and gravel roads. The ultimate outlet for all of the catchments is Canal Lake, albeit with varying outlet locations. Generally, the park has been graded to evenly distribute the conveyance of surface drainage to Canal Lake, meaning that there are limited outlet locations that receive a concentrated portion of the surface drainage from the park. This is generally seen as beneficial as it can reduce the potential for erosion.

2.2.3.3 Management Strategy

The purpose of stormwater management is to maintain the health of local water bodies and features as well as provide opportunities for the human use of water by mitigating the effects of human impacts on the environment. To achieve this goal, stormwater management strives to maintain the natural hydrologic cycle, prevent an increased risk of flooding or undesirable stream erosion, and protect water quality.

Centennial Trailer Park does not currently have any stormwater management infrastructure however the existing design of the site does provide some mitigating measures from a stormwater management perspective. As previously stated, the surface grading of the park avoids erosion impacts by not applying points sources of surface flow to Canal Lake. Additionally, the majority of the park remains pervious (landscaped) or semi-pervious (gravel roads) with the drainage from impervious surfaces (trailers, etc.)

being directed to landscaped areas prior to discharge to Canal Lake which can provide a measure of beneficial water quantity and quality controls.

2.2.4 Roads Infrastructure

As shown in **Figure 1**, the Centennial Trailer Park is bisected by Centennial Park Road which is a 2-lane highway with a maximum speed of 60 kilometres per hour in proximity of the park. Centennial Park Road is owned by the City and provides vehicular access to the east and west sides of the park. Internal gravel roadways of approximately 4 metres in width provide vehicular access to each of the lots with gravel driveways provided on each lot. Boreholes to confirm the depth of installed gravel road profile were not completed as part of this project. Based on the site walk, the gravel roadways were in generally good condition with minor potholes observed. As discussed with City staff, potholes are fixed as required with truckloads of gravel spread and compacted by maintenance staff where required.

2.2.5 Electrical Infrastructure

The Centennial Trailer Park currently provides a 30 amperage (A) electrical service to each of the 173 lots within the park. While as-builts of the electrical system within the park were not available, the following information was gathered based on available documents, a site walk, and discussions with park staff.

The electrical system for the park connects to Hydro One electrical service lines which are located on hydro poles on the west side of Centennial Park Road. An overhead electrical service connects from a hydro pole located approximately 60 metres south of the park entrance to a hydro pole internal to the east side of the park; adjacent to the communal washroom facility. This hydro pole includes three (3) transformers, from which overhead service lines are strung to other hydro poles within the east portion of the park. Each hydro pole connects the overhead electrical line to electrical conduit below-grade, which is then extended below-grade as individual services to the lots.

The existence of hydro poles and overhead electrical lines was not observed on the west half of the park therefore it is assumed that an underground electrical service feed is provided to the west half of the park from the existing hydro pole approximately 45 metres north of the park entrance, as shown on **Figure 5**. It is further assumed that the majority of electrical infrastructure is buried with the exception of electrical panels which were observed on wooden posts in the west half of the park.

While the majority of other trailer parks in Kawartha Lakes provide a 30A service connection as the standard with a few trailer parks offering a 50A service connection as a premium option, a significant portion of newer trailer homes include higher-demand appliances which would benefit from a 50A service connection. It was noted on the site walk that repairs to the existing electrical system have been required multiple times in recent years based on newer mobile homes requiring more power than the current electrical system could provide.

LEGEND	
	WATERLINE
	LOT PROPERTY LINE
	EX. GRAVEL
	EX. ASPHALT
	EX. RECREATION VEHICLE DRIVE
	EX. HYDROELECTRIC HOODUP
	EX. DDOIA
	EX. HYDRO (OVERHEAD)
	EX. HYDRO (UNDERGROUND)



NOTES

BENCH MARK

THE PROJECTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES. THE PROJECTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES. THE PROJECTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES.

NO.	DATE	REVISION/DESCRIPTION	BY



CENTENNIAL TRAILER PARK
CITY OF KAWARTHA LAKES

EX. ELECTRICAL INFRASTRUCTURE

DRAWN BY A.K.	APPROVED BY	PROJECT NO. 72054	Figure 5
DESIGNED BY	DATE NOVEMBER 2023	SCALE 1:1000	

2.2.6 Telecommunications Infrastructure

From discussions with park staff during the site visit, the park provides free Internet service via Wi-Fi to residents. The Wi-fi is only available in close proximity to the park office on the west side of the park as the range of the Wi-fi modem is limited. In addition, cellular reception within the park can be limited and additional telecommunications infrastructure is not provided by the park to the residents.

However, residents do have the option of paying for telecommunications companies to install telecom cable to their individual lot. According to park staff, this option has been used by some residents however records of which lot have telecom infrastructure and the associated infrastructure layout were not available.

2.3 Population Projections, Water Demand, and Wastewater Flow Projections

The anticipated demand on the existing water and wastewater infrastructure was calculated using two approaches. The first approach involved using the City's design criteria, along with an estimated park population, to determine the peak water demand and wastewater flow projections. As previously noted, this approach was deemed an overly conservative approach given the reasons listed in Section 2.3.1. The second approach involved reviewing the water taking records measured by the flowmeter in the park's pump house to determine the actual water volumes used by park residents throughout the operational months of 2022 and 2023. This approach provided a more accurate estimate of water demand and wastewater projections, albeit the approach was not able to identify peak daily demands. These two approaches are detailed in Sections 2.3.1 and 2.3.2 with the preferred approach used to size future infrastructure needs further detailed in Section 0.

2.3.1 Design Criteria Approach

In order to calculate the projected water demand and wastewater flow projections required of the existing water and wastewater systems at the Centennial Trailer Park using the City's design criteria, an estimated average population during the summer months is required. While the population density estimate for residential dwellings in Kawartha Lakes is 2.3 people per unit, the Centennial Trailer Park permits a maximum of 6 persons, and in some cases 8 persons, to a site. However, there are several factors that impact the projected water demand and wastewater flow projections from a trailer park, such as:

- It is considered unlikely that the majority of lots are occupied full-time throughout the operational months, as a primary residence would be. Therefore, the anticipated water use would likely be reduced.
- Heavy water-use appliances, such as dishwashers or washing machines, may be used less frequently within the trailer park given the park's amperage limitations and due to most trailers being used primarily on the weekends.

Therefore, as an exact average people per site is not available and the water demand and wastewater flows may be impacted by the aforementioned reasons, the City's estimate of 2.3 people per site will be used for this analysis. This estimate was further validated by the survey conducted of park residents who stated that the majority of lots include 2-4 people. **Table 5** provides a summary of the population

projections, along with the associated water demand and wastewater flow projections, for the Centennial Trailer Park.

Based on the existing water and wastewater systems within the Centennial Trailer Park, the water demand is calculated for the entirety of the park as the entire system is connected, whereas the wastewater flow projections are separated into the east and west septic systems.

As previously noted, the east half of the park includes some sites (the number being unconfirmed) that include partial pump-out servicing. While it is recognized that lot-specific leaching beds may infiltrate a portion of the greywater from the applicable lots on the east half of the site, the wastewater flow calculations assume that all wastewater from the lots in the Centennial Trailer Park is conveyed to the septic beds on the east and west sections of the park, respectively; either by gravity or through the pump-out service. This is assumed to maintain conservative estimates for future planning.

Table 5: Population Projections, Water Demand, and Wastewater Flows

Population Estimate			
	East of Centennial Park Road (Lots 1 – 99)	West of Centennial Park Road (Lots 200 – 250, 301 – 323)	Total (173 lots)
	228 persons	170 persons	398 persons
Water Demand			
Average Daily Demand	-	-	2.1 L/s
Maximum Daily Demand	-	-	5.7 L/s
Peak Hourly Demand	-	-	8.6 L/s
Wastewater Flows			
Average Daily Flow	1.2 L/s	0.9 L/s	2.1 L/s
Harmon Peaking Factor	Calculated: 4.12, therefore $M_{max} = 3.8$	Calculated: 4.18, therefore $M_{max} = 3.8$	Calculated: 4.02, therefore $M_{max} = 3.8$
Gross Tributary Area	-	1.7 hectares	1.7 hectares
Infiltration Allowance	-	0.44 L/s	0.44 L/s
Peak Design Flow	4.5 L/s	3.8 L/s	8.3 L/s

2.3.2 Measured Volume Approach

The measured volume approach involves examining the actual water volumes treated by Centennial Trailer Park’s potable water system and correlating that to existing water demand and wastewater flow projections within the park. The water takings from the park’s operational days (May – October) for the preceding two years (2022 & 2023) were reviewed and are presented in **Figure 6** and **Figure 7**, respectively. As shown on both figures, the limit on daily water taking for the park is 200,000 litres per day, or 2.3 L/s continuously throughout the day, as outlined in Section 2.2.1.

In 2022, daily water takings ranged from 0.22 L/s to 1.49 L/s with an average of 0.69 L/s. It was observed that weekend demand was generally higher with an average daily demand for Saturdays, Sundays, and holidays of 0.82 L/s with a regular weekday average of 0.62 L/s.

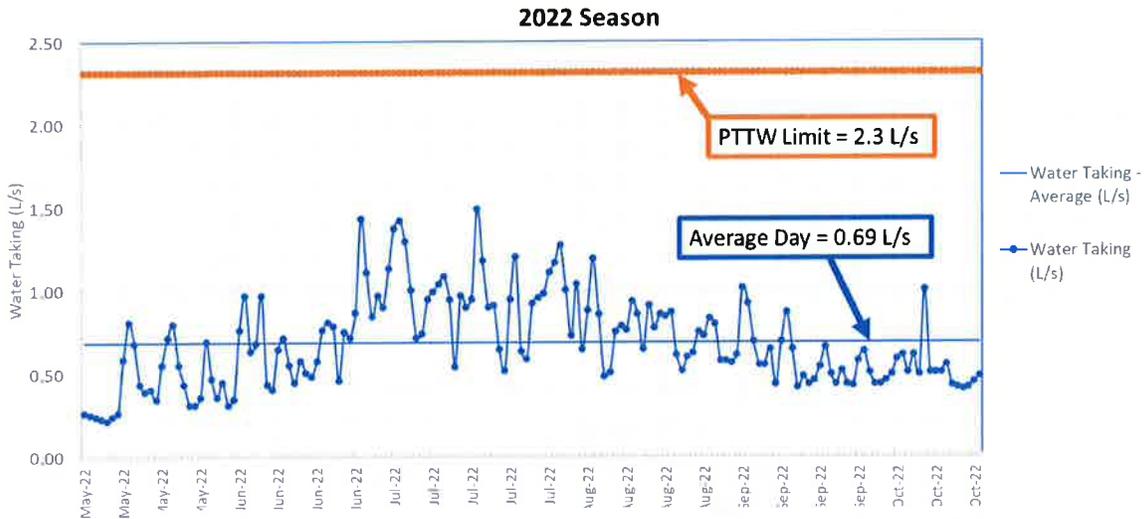


Figure 6: Water Takings from 2022

In 2023, daily water takings ranged from 0.23 L/s to 1.39 L/s with an average of 0.77 L/s. Similar to the data for 2022, weekend demand was higher with an average daily demand for Saturdays, Sundays, and holidays of 0.87 L/s with a regular weekday average of 0.73 L/s.

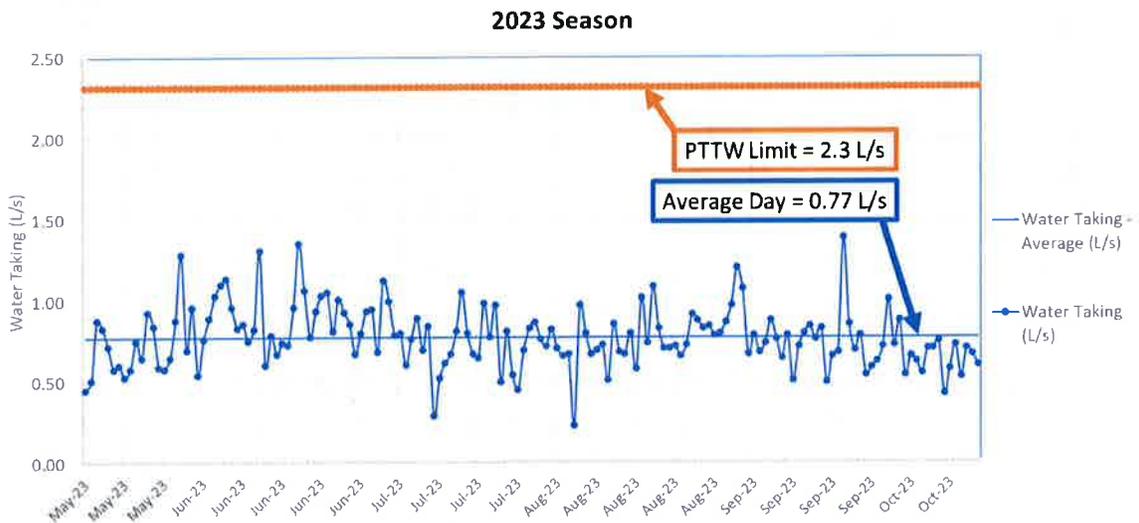


Figure 7: Water Takings from 2023

While this data confirms that the Centennial Trailer Park is operating well below the daily water use limits imposed by the PTTW, it does not address higher demand rates encountered throughout the day. For example, water demand will typically increase within a shared water system from 7-9am and 5-8pm

when residents are showering, preparing meals, washing clothes, etc. The provided data only notes the total daily water volume so peak demand rates encountered throughout the day will need to be approximated, which is further detailed in Section 2.3.3.

2.3.3 Preferred Approach

The preferred approach for determining the approximate load placed upon the existing water and wastewater infrastructure at the Centennial Trailer Park involves using the measured volume approach to determine the average daily demand and using the peaking factors from the design criteria approach to determine the approximate peak demands. In order to establish a baseline estimate, the 2023 data was carried forward as it was more recent and included higher average daily flow rates, thereby maintaining a conservative estimate. A summary of the average and peak water demand and wastewater flow projections using the preferred approach is outlined in **Table 6**, along with estimates of the water demand and wastewater flow projections during the higher-demand weekend periods.

Table 6: Water Demand and Wastewater Flow Projections

2023 Season			
	East of Centennial Park Road	West of Centennial Park Road	Total
Number of Lots	99 lots	74 lots	173 lots
Water Demand			
Average Daily Demand (ADD)	-	-	0.77 L/s (0.87 L/s on weekends)
Maximum Daily Demand (MDD)	-	-	2.12 L/s (2.39 L/s on weekends)
Peak Hourly Demand (PHD)	-	-	3.18 L/s (3.59 L/s on weekends)
Wastewater Flows			
Average Daily Flow	0.44 L/s	0.33 L/s	0.77 L/s
Harmon Peaking Factor	$M_{max} = 3.8$	$M_{max} = 3.8$	$M_{max} = 3.8$
Gross Tributary Area	-	1.7 hectares	1.7 hectares
Infiltration Allowance	-	0.44 L/s	0.44 L/s
Peak Design Flow	1.67 L/s (1.89 L/s on weekends)	1.70 L/s (1.92 L/s on weekends)	3.37 L/s (3.81 L/s on weekends)

As shown in **Figure 8**, the average daily demand (ADD) was based on the daily water takings measured in 2023 which ranged from 0.23 L/s to 1.39 L/s with an average of 0.77 L/s. This average, along with all of the measured water takings from 2023, remained below the PTTW limit for daily water takings of 2.3 L/s. The PTTW also identified a maximum minute demand of 4.7 L/s. Peaking factors are only available for maximum day and peak hour conditions so the higher peaking factor of 4.13 for peak hour was applied to the ADD for comparison purposes to the PTTW limit of 4.7 L/s. As shown in **Figure 8**, the PHD ranged from 0.96 L/s to 5.74 L/s with an average of 3.2 L/s which is below the PTTW limit of 4.7 L/s. However, on seven (7) high-demand days in 2023 (typically coinciding with weekends or holidays), based on the applied peaking factor the PHD exceeded the maximum minute demand outlined in the PTTW.

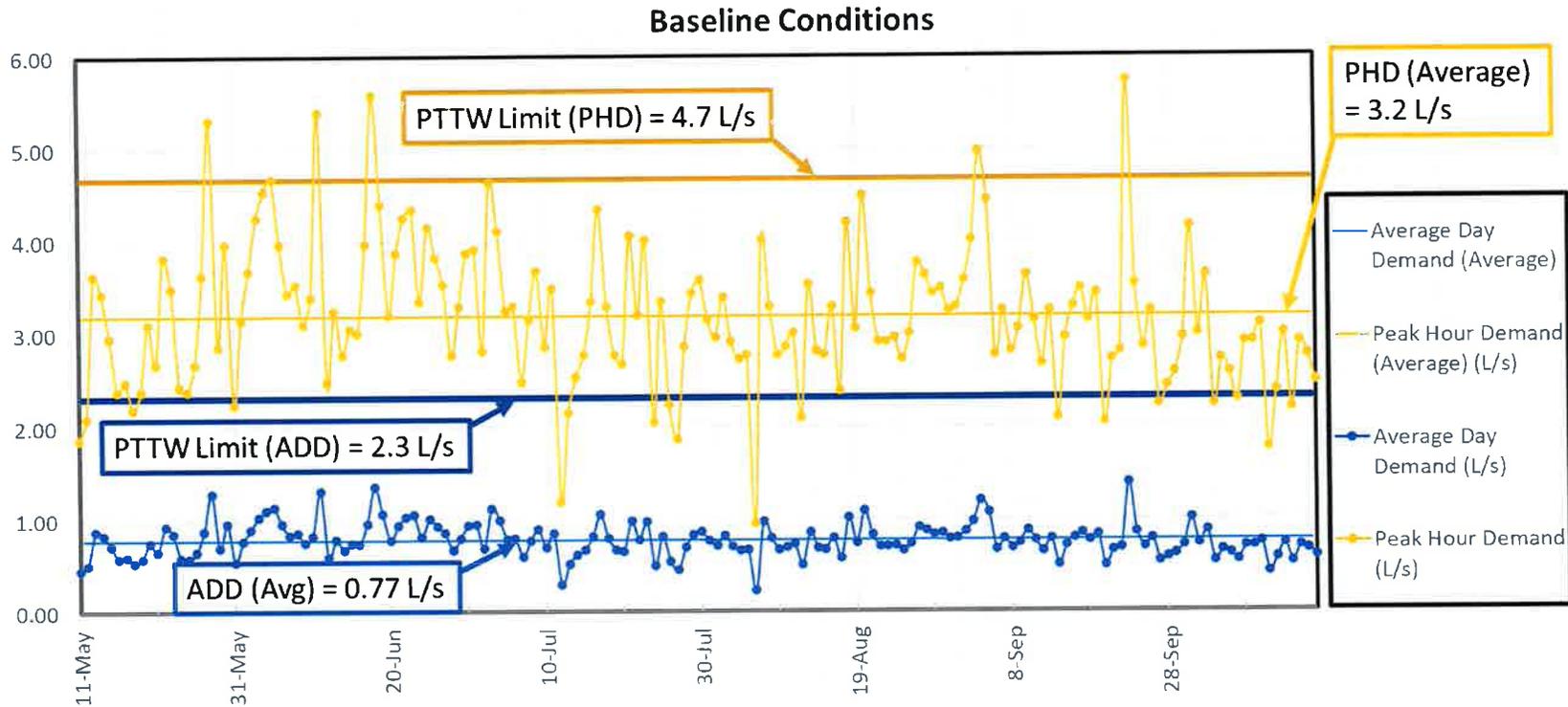


Figure 8: Water Takings Analysis using Preferred Approach

These exceedances are reflected in City communication which indicated that on days with excessive park population, a boil advisory was periodically required when the water system could not keep up with the water demand. If demand exceedances to the water treatment system become a regular occurrence within the park the City could consider additional treatment capacity. Furthermore, the City could investigate installing metering within the water system to confirm areas and/or lots with high water demand in order to notify residents of water conservation options or to increase water billing rates to encourage conservation.

3 ALTERNATIVE DESIGN CONCEPTS

Along with the background review, extensive consultation with City staff, stakeholders, and current park residents was conducted in order to identify opportunities and constraints for the Centennial Trailer Park. Based on the information gathered, two alternative concept plans were developed to illustrate options for how the park could be maintained, expanded, and/or revitalized over the next 20 years.

3.1 Description of Alternative Concept Plans

The following sections provide an overview of the features, opportunities, and constraints associated with the two alternative concept plans that were reviewed through this Master Plan. Advantages and disadvantages for each alternative concept plan are also identified.

3.1.1 Alternative Concept Plan 1

The theme of Alternative Concept Plan 1 is 'Nature & Sustainability'; the details of which are outlined on **Figure 9**. A summary of the key features, along with the relative advantages and disadvantages of each feature from an infrastructure perspective, is provided in **Table 7**.

Table 7: Alternative Concept Plan 1

Feature	Advantage	Disadvantage
Revitalize existing naturalized areas along the shoreline, including the beach.	Improved erosion control along shoreline.	-
Construct trails along the shoreline.	Walking paths separate from roadways improve resident safety.	-
Additional lots; either short-term or long-term.	-	Additional load on existing infrastructure thereby potentially requiring upgrades or expansions.
Drinking water system would be upgraded by looping dead ends in the system to improve water quality, minimize stagnation, and increase redundancy in supply.	Improve water quality. Minimize stagnation. Increase redundancy in supply.	Up-front capital cost. Ongoing maintenance costs associated with aging system regardless of localized improvements.
Delineated parking areas for additional cars and boat trailers.	Designated parking areas will reduce excessive parking on lots or roadways.	Additional hardscaping may require SWM controls to mitigate impacts.
Remove baseball diamond and add greenspace with no-mow areas.	Additional rainwater retention in no-mow areas.	-
Relocate and add a multi-court, playground, and beach volleyball court.	-	Additional hardscaping may require SWM controls to mitigate impacts.

<p>Increase the size of the community hall & office. Add a store area for incidentals.</p>	<p>-</p>	<p>Additional impervious roof area may require SWM controls to mitigate impacts.</p>
<p>Upgrade to a 50 amp electrical service throughout the park, complete with separate metering.</p>	<p>Improved service for park residents. Reduced ongoing service calls and maintenance costs.</p>	<p>Significant capital cost.</p>
<p>Evaluate existing septic system and replace if required. For lots requiring pump-out operations, install localized gravity collection systems (sewers) to centralized holding tanks to minimize spills and increase staff health and safety.</p>	<p>Confirmation on functionality of septic system & upgrade if required. Improved collection system for residents. Improved health & safety for park staff who won't need to complete pump-outs at every trailer.</p>	<p>Significant capital cost.</p>

CENTENNIAL TRAILER PARK

CONCEPT 1 | NATURE + SUSTAINABILITY

- MEADOW PLANTING / RESTORATION
- BIRD / BAT BOXES
- REORGANIZE PLAY SPACE
- REVITALIZE BEACH
- VISITOR / SHORT TERM PARKING
- DOCK UPGRADES

Concept 1 is organized around revitalizing the waters edge, increasing areas of no-mow zones and adding areas for birds, butterflies, bats, adding trails, educating and encouraging sustainable behaviour. The unique features of this concept included

1 SENSE OF ARRIVAL ART



2 BEACH UPGRADES



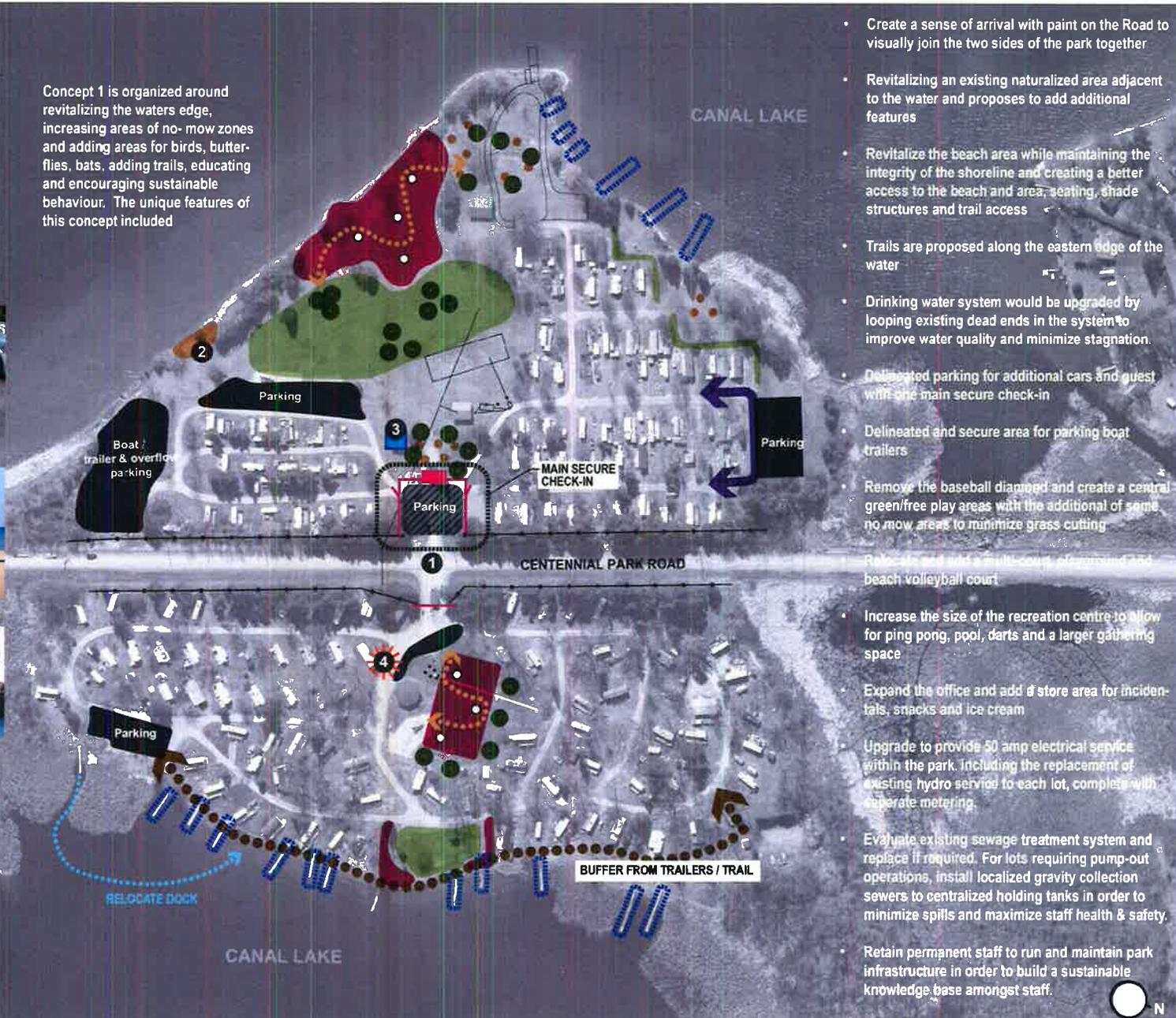
3 UPGRADE + EXPAND RECREATION CENTRE



4 UPGRADE FROM 30 AMP TO 50 AMP



0 10 20 METRES



- Create a sense of arrival with paint on the Road to visually join the two sides of the park together
- Revitalizing an existing naturalized area adjacent to the water and proposes to add additional features
- Revitalize the beach area while maintaining the integrity of the shoreline and creating a better access to the beach and area, seating, shade structures and trail access
- Trails are proposed along the eastern edge of the water
- Drinking water system would be upgraded by looping existing dead ends in the system to improve water quality and minimize stagnation.
- Delineated parking for additional cars and guest with one main secure check-in
- Delineated and secure area for parking boat trailers
- Remove the baseball diamond and create a central green/free play areas with the additional of some no mow areas to minimize grass cutting
- Relocate and add a multi-court playground and beach volleyball court
- Increase the size of the recreation centre to allow for ping pong, pool, darts and a larger gathering space
- Expand the office and add a store area for incidentals, snacks and ice cream
- Upgrade to provide 50 amp electrical service within the park. Including the replacement of existing hydro service to each lot, complete with separate metering.
- Evaluate existing sewage treatment system and replace if required. For lots requiring pump-out operations, install localized gravity collection sewers to centralized holding tanks in order to minimize spills and maximize staff health & safety.
- Retain permanent staff to run and maintain park infrastructure in order to build a sustainable knowledge base amongst staff.

Figure 9

3.1.2 Alternative Concept Plan 2

The theme of Alternative Concept Plan 2 is 'Renovate & Maintain'; the details of which are outlined on Figure 10. A summary of the key features, along with the relative advantages and disadvantages of each feature from a servicing perspective, is provided in Table 8.

Table 8: Alternative Concept Plan 2

Feature	Advantage	Disadvantage
On-street parking on Centennial Park Road.	Reduce parking needs within park.	Potential safety concerns.
Increase the beach area & provide better access to the water.	-	-
Drinking water system to be maintained and repaired as needed.	No up-front capital costs.	Ongoing maintenance costs associated with aging system.
Additional lots; either short-term or long-term.	-	Additional load on existing infrastructure thereby potentially requiring upgrades or expansions.
Delineated parking areas for additional cars.	Designated parking areas will minimize excessive parking on lots or roadways.	Additional hardscaping may require SWM controls to mitigate impacts.
Adjust large lots to accommodate more parking.	Additional parking areas may reduce excessive parking on lots or roadways.	Additional hardscaping may require SWM controls to mitigate impacts.
Increase the size of the office and add a store area for incidentals.	-	Additional impervious roof area may require SWM controls to mitigate impacts.
Maintain existing 30 amp electrical system and current metering system (one meter for entire park).	No up-front capital costs.	Ongoing maintenance costs and service disruptions associated with higher amp needs of new trailers.
Evaluate existing septic system and replace if required. Maintain existing pump-out operations.	Confirm adequacy of septic system & upgrade if required.	Significant capital cost.

CENTENNIAL TRAILER PARK

CONCEPT 2 | RENOVATE + MAINTAIN

- MEADOW PLANTING / RESTORATION
- BIRD / BAT BOXES
- REORGANIZE PLAY SPACE
- EXPAND + REVITALIZE BEACH
- SHORT TERM / NEW LONG TERM STAYS
- PREMIUM PRIVATE LOTS
- REDUCE LARGE TRAILER LOT SIZE
- ON-STREET PARKING
- DOCK UPGRADES

Concept 2 propose to renovate existing infrastructure, maintain facilities such as the play areas and renovate areas of the park to accommodate overflow parking.

1 AUTOMATED GATE ENTRY



2 LAWN GAMES AREA



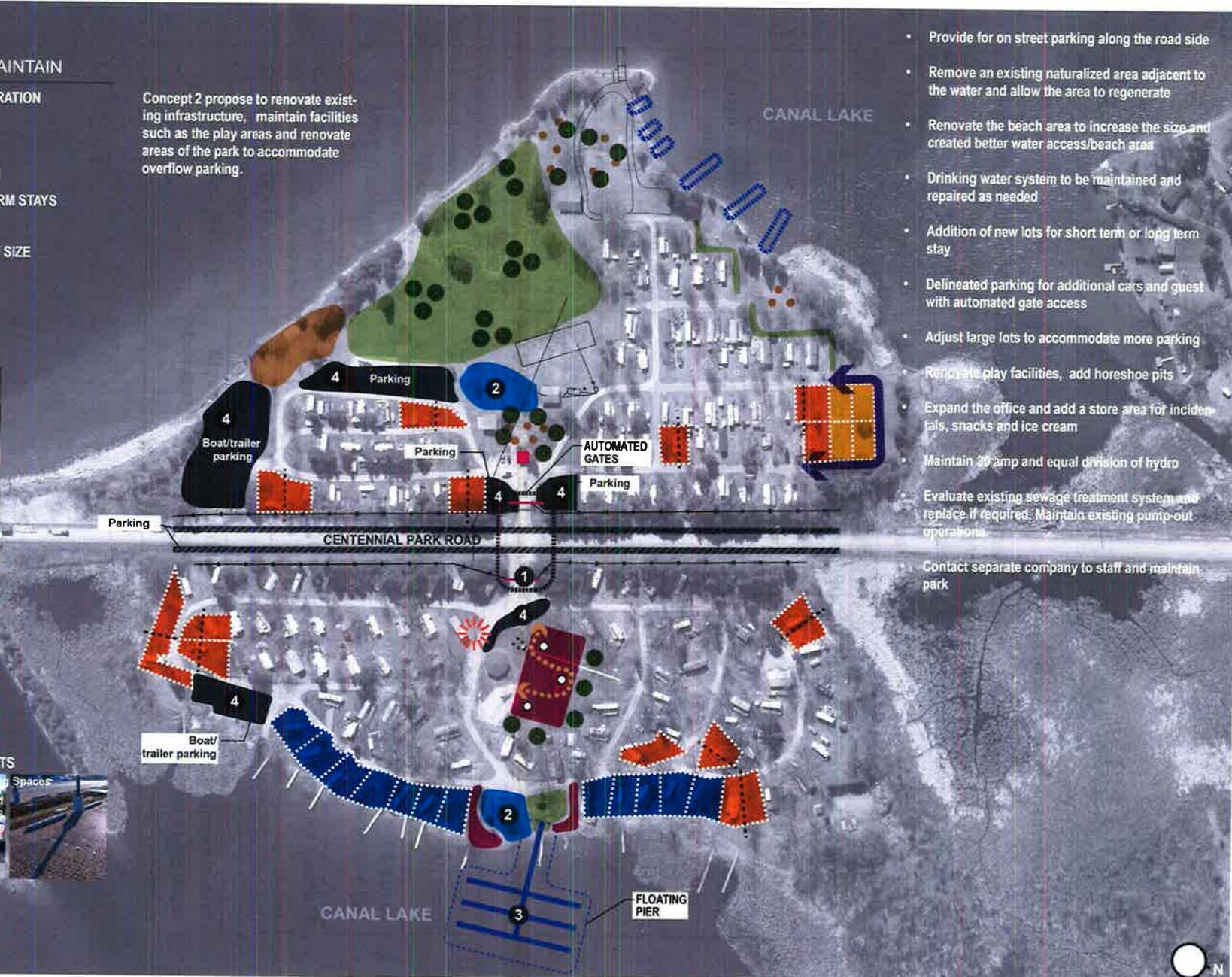
3 FLOATING PIER



4 EXPANDED / UPGRADED PARKING LOTS



10 20 METRES



- Provide for on street parking along the road side
- Remove an existing naturalized area adjacent to the water and allow the area to regenerate
- Renovate the beach area to increase the size and created better water access/beach area
- Drinking water system to be maintained and repaired as needed
- Addition of new lots for short term or long term stay
- Delineated parking for additional cars and guest with automated gate access
- Adjust large lots to accommodate more parking
- Renovate play facilities, add horseshoe pits
- Expand the office and add a store area for incidentals, snacks and ice cream
- Maintain 30 amp and equal division of hydro
- Evaluate existing sewage treatment system and replace if required. Maintain existing pump-out operations
- Contact separate company to staff and maintain park

Figure 10

4 PREFERRED CONCEPT PLAN

Further consultation on the alternative concept plans was conducted with City staff, stakeholders, and current park residents to inform the development of the Master Plan. The Preferred Concept Plan put forward in the Master Plan incorporated the background information review, feedback from the online survey, the Public Information Centre (PIC), and multiple meetings with City staff. Ultimately, the Master Plan combined elements from Alternative Concept Plans 1 & 2 to create a Preferred Concept Plan that addressed the issues deemed most relevant to the preservation and sustainability of the park over the next 20 years.

4.1 Description of Preferred Concept Plan

The details of the Preferred Concept Plan are outlined on **Figure 11**. A summary of the key recommendations are as follows:

- Centralized floating docks on the west and east sides of the park to replace the existing docks.
- Increase and renovate the beach area, including armourstone edging to stabilize the shoreline. Provide better access to the water via a cantilevered dock.
- New open play area on west side which includes disc golf, walking trail, and new tree planting.
- Revitalize open play area on east side with walking trail, buffer planting, and new tree planting.
- Lighting throughout the park and along walking trails.
- Refresh the community hall & main office.
- Improve multi-use courts with new pavement.
- Upgrade to a 50 amp electrical service throughout the park, complete with separate metering.
- Delineated parking areas for additional cars and boat trailers.
- Reduce larger existing lots into smaller lots to improve consistency.
- Seven additional lots. Five additional lots on west side and two additional lots on east side.
- Evaluate existing septic system and replace if required. For lots requiring pump-out operations, install localized gravity collection systems to centralized holding tanks to minimize spills and improve health and safety for park staff.
- Refresh roadways throughout the park.

CENTENNIAL TRAILER PARK
MASTER PLAN

- MOWED LAWN
- BUFFER PLANTING
- UPDATE EXISTING PLAYGROUND / COURTS
- NEW TRAILER LOT
- POTENTIAL NEW TRAILER LOT
- PREMIUM LOTS
- RESIZED (11m WIDTH) + REORIENTED LOTS
- EXISTING DOCKS TO BE PHASED OUT
- EXISTING OFFICE BUILDING
- SIGNAGE / UPDATED ENTRANCE FEATURE / ARCHWAY
- TRAIL
- FENCE
- DISK GOLF HOLES
- TRAIL MARKER
- WAYFINDING SIGNAGE
- PROPOSED TREE
- EXISTING TREES + VEGETATION
- SEATING AREA
- BIRD / BAT BOXES
- LIGHTING



- 1 **SENSE OF ARRIVAL ART** 
- 2 **FLOATING PIER** 
- 3 **BEACH UPGRADES** 
- 4 **RE-FRESH RECREATION CENTRE + PLAY SURFACE** 
- 5 **UPGRADE FROM 30 AMP TO 50 AMP** 
- 6 **AUTOMATED GATE ENTRY** 
- 7 **COVERED SEATING AREAS** 
- 8 **EXPANDED / UPGRADED PARKING LOTS** 
- 9 **REFRESHED ROADS** 
- 10 **DOG PARK WITH DOUBLE GATE ENTRY** 



Figure 11



4.2 Infrastructure Recommended to Implement Preferred Concept Plan

Based on the Preferred Concept Plan, the following recommendations are made pertaining to the infrastructure needs at the Centennial Trailer Park.

4.2.1 Water Infrastructure

Treatment: As noted in Section 4.1, it is proposed to increase the number of lots within the Centennial Trailer Park by reducing the size of several existing larger lots over time. It is envisioned to increase from 173 lots to 180 lots, or a 4% increase. This will require a minor increase in the treatment needs at the park. Given the water treatment capacity available within Centennial's existing water system per Section 2.2.1.1, it is not envisioned that an expansion to the treatment system will be required to accommodate the additional 7 lots. Based on the days in 2023 where isolated capacity exceedances were experienced within Centennial's water system, it is anticipated that these instances were due to additional visitors beyond the park's capacity. These outliers should not form the basis for a water system capacity expansion; rather the recommendation for a gate-controlled entry should reduce these outliers in the future.

Distribution: Similar to the recommendations outlined for the treatment system, it is not anticipated that a 4% increase to the park's resident population will significantly impact the functionality of the existing water distribution system. Therefore, capital upgrades as a function of increased demand are not recommended. Given the estimated age of the existing system (45 years for east system and 37 years for west system; refer to Section 2.1.1) and an average service life of water distribution systems being 70-80 years, the distribution system is not anticipated to require full replacement within the next 20 years. As the assets age over time, ongoing maintenance costs (leaks, breaks, etc.) are anticipated to increase and this is reflected in the recommended future maintenance costs.

The option to loop dead-end watermains within the park's distribution system was considered in Alternative Concept Plan 1 (refer to **Table 7**). However, the potential advantages outlined in **Table 7** were not deemed worth the up-front capital cost at this stage as the City's contractor completes regular water quality testing and has not identified issues with the existing system's water quality. If water quality testing indicates issues with stagnation or reduced water quality in the future, the City should review the treatment methods and/or consider improving the distribution system through looping dead-end feeds.

Water Demand: As noted, the increase from 173 to 180 lots will involve a modest increase in the water demand within the park. Based on the measured water takings in the park, it is estimated that the average day demand (ADD) will increase from 0.77 L/s to 0.80 L/s and the peak hour demand (PHD) will increase from 3.18 L/s to 3.31 L/s. During increased weekend demand, it is estimated that the ADD will be 0.91 L/s and the PHD will be 3.74 L/s. These values all remain below the PTTW limit of 2.3 L/s for ADD and 4.7 L/s for peak minute demand. Therefore, it is not recommended that additional water infrastructure is required as a function of the increased demand.

4.2.2 Wastewater Infrastructure

Treatment: As noted in Section 2.2.2, the septic system servicing the east half of the park was installed in 1978 while the septic system servicing the west half of the park was installed around 1987. While annual pump-outs of the septic tank are conducted as part of the park's maintenance program, no major improvements to the septic systems have been recorded since their installation. This would indicate that the east and west septic systems are 46 years and 37 years old, which is beyond the typical service life of a septic system. Therefore, it is recommended that the functionality of both septic systems be evaluated and replaced if required. The following recommendations are made in relation to the treatment systems on site:

- Retain a professional to evaluate the functionality of the existing septic systems; both from a treatment and capacity perspective (considering the updated flow rates identified below in addition to completing flow monitoring).
- If replacement is required, consider the following as part of design:
 - If sufficient footprint is not available for a new east septic system, a reduced septic system footprint could be considered with the additional capacity provided in an expanded west septic system. This option would involve pump trucks conveying sewage from the east half of the park to the septic system located on the west half of the park.
 - Review the implications associated with sewage point loads introduced to the septic tank via the pump-out trucks. Moderating the sewage flow rate into the septic tank via reducing the flow rate from the pump-out truck or construction of a storage tank upstream of the septic tank are potential options.

Refer to **Figure 12** for the proposed wastewater infrastructure associated with the Preferred Concept Plan.

Collection: As detailed in Section 2.2.2.2, the existing wastewater collection system is limited to sewers collecting sewage from 51 lots on the west half of the park with the remaining 122 lots requiring pump-out operations. As noted in Section 4.1, the Preferred Concept Plan recommends that localized collection systems be constructed for the lots currently without gravity sewer connections. The localized systems will include centralized holding tanks that are connected to sewers extended along the gravel driveways with sewage service connections provided to each lot. The holding tanks are sized for one week of average daily flow (ADF) as it was assumed that the weekly pump-out operations would continue. Sizing of the tanks is to be confirmed at detailed design once the optimal number of pump-out operations per week is confirmed by the City. It is recommended that flow monitoring be conducted during design to confirm the required tank sizing as the preliminary tank sizing estimates provided in this report include wastewater generated from the communal washroom, shower, and laundry facilities which currently drains directly to the septic bed, thereby ensuring that the tank sizing is conservative. This option provides an upgraded level of service to the park residents and improved health and safety for park staff as the pump-out operations are limited to localized facilities with improved access. It is recommended that float sensors are added to the holding tanks to notify staff when sewage levels are reaching the tank's limit, thereby minimizing the potential for spills within the park.



NOTES

BENCH MARKS

NO.	DATE	REVISION/DESCRIPTION	ISSUED



CENTENNIAL TRAILER PARK
CITY OF KAWARTHA LAKES

PROPOSED WASTEWATER INFRASTRUCTURE

DRAWN BY: A.S.	APPROVED BY: J.P.	PROJECT NO.: 2254	Figure 12
DATE: 08/10/2023	DATE: 08/10/2023	SCALE: 1:100	

Wastewater Flow Projections:

As noted, the increase from 173 to 180 lots will involve a modest increase in the wastewater flow generated within the park. Based on the measured water takings in the park, it is estimated that the average daily flow (ADF) will increase from 0.33 L/s to 0.35 L/s on the west half of the park and the east half of the park will increase from 0.44 L/s to 0.45 L/s. Based on the increased collection area and inflow/infiltration considerations, the peak design flow (PDF) for the west half of the park will increase from 1.70 L/s to 1.99 L/s and the east half of the site will increase from 1.68 L/s to 2.62 L/s. During increased weekend demand, it is estimated that the ADF will be 0.40 L/s and 0.51 L/s for the west and east sides of the park, respectively. The PDF on weekends is estimated to be 2.25 L/s and 2.96 L/s for the west and east sides of the park, respectively. The design of the treatment and collection systems should review any current water taking records and/or complete flow monitoring to inform the sizing of the infrastructure. The preliminary infrastructure sizing presented in this report was completed based on the preferred approach outlined in Section 2.3.3.

4.2.3 Stormwater Infrastructure

As detailed in Section 2.2.3, the Centennial Trailer Park does not have any sub-grade drainage infrastructure such as catch basins or storm sewers. The park is graded to convey surface drainage overland towards Canal Lake with the existing drainage areas and outlets detailed on **Figure 4**. The park also does not have any formalized stormwater management infrastructure although there are several natural mitigating features, such as vegetated areas, that provide benefits from a water quality, water quantity, water balance, and erosion perspective.

The Preferred Concept Plan identifies several features which will have stormwater management impacts on the park. **Table 9** summarizes these features and identifies the recommended mitigation measures.

Table 9: Impacts of Preferred Concept on Stormwater Management

Feature	Impact and Mitigation Measure
Increase and renovate the beach area, including armourstone edging to stabilize the shoreline. Provide better access to the water via a cantilevered dock.	This feature, specifically the armourstone edging, will assist in reducing erosion along the shoreline.
New open play area on west side which includes disc golf, walking trail, and new tree planting. Revitalize open play area on east side with walking trail, buffer planting, and new tree planting.	Increasing the active play areas that include pervious cover (grass, walking trail, tree plantings) helps improve water quality and promotes infiltration of drainage.
Improve multi-use courts with new pavement.	As existing courts have pavement, this feature will not have an impact on the existing drainage conditions.
Delineated parking areas for additional cars and boat trailers.	Additional parking areas will increase surface runoff if completed with pavement. Gravel surface treatment will also increase

	surface runoff, albeit to a lesser degree. It is recommended to consider pervious surfaces during design and to direct surface drainage to vegetated areas.
Reduce larger existing lots into smaller lots to improve consistency.	Reducing larger lots into smaller lots will likely lead to a greater percentage of each lot having impervious cover (trailers, awnings, etc.). It is recommended to maximize the greenspace on each new lot and implement low impact development techniques to mitigate surface runoff where feasible.
Additional lots on west side and east side (5 additional lots on west side, 2 additional lots on east side; 7 additional lots total).	Additional lots will increase impervious cover. It is recommended to maximize the greenspace on each new lot and implement low impact development (LID) techniques where feasible to mitigate additional surface runoff.
Evaluate existing septic system and replace if required.	For new septic systems, the design should include grading to direct surface drainage away from the footprint of the septic bed.

4.2.4 Roads Infrastructure

As noted in Section 4.1 and **Figure 11**, it is recommended that the existing roadways within the park be repaired and re-graded where required. This can be completed on an as-needed basis with an annual budget allocated towards road repairs. The condition of the existing roadways should be evaluated with priority road sections identified for repair in the near-term.

For areas that require additional gravel roadway, parking areas, or driveway to achieve the Preferred Concept Plan, a consultant should be retained to recommend a road design profile that will be suitable for the soil conditions and vehicle loadings anticipated at the Centennial Trailer Park.

4.2.5 Electrical Infrastructure

As noted in Section 2.2.5, the Centennial Trailer Park currently provides a 30 amp electrical service to each of the 173 lots in the park. However, the park has a policy requiring that new trailers entering the park be newer than 10 years old. Newer trailers typically have higher electrical demand appliances which is causing maintenance issues for park staff. It was noted that repairs to the existing electrical system have been required multiple times in recent years based on newer trailers requiring more power than the current electrical system could provide.

Based on feedback from the City and current park residents, the Preferred Concept Plan includes upgrading the park from the existing 30 amp system to a 50 amp system, along with submetering for each lot. Submetering (either on a per-lot basis or on an area-basis) provides the City the ability to alter their billing structure to a usage basis instead of the current system where the park's electrical utility bill is split equally amongst park residents. Submetering also has the potential to encourage park residents to limit electrical usage if a premium is associated with high usage. This is a significant capital expenditure that will be detailed in Section 5. While the capital cost will be substantial, it will reduce the maintenance costs and service calls required to maintain the existing 30 amp system in the long-term.

Refer to **Figure 13** for the proposed electrical infrastructure associated with the Preferred Concept Plan.

LEGEND	
	WATERLINE
	LOT PROPERTY LINE
	EX. SIGNAL
	EX. RECREATION VEHICLE-HOME
	EX. HYDROELECTRIFICATION
	EX. DOCK
	EX. HYDRO DIVERSION
	EX. HYDRO UNDERGROUND



NOTES

BENCH MARKS

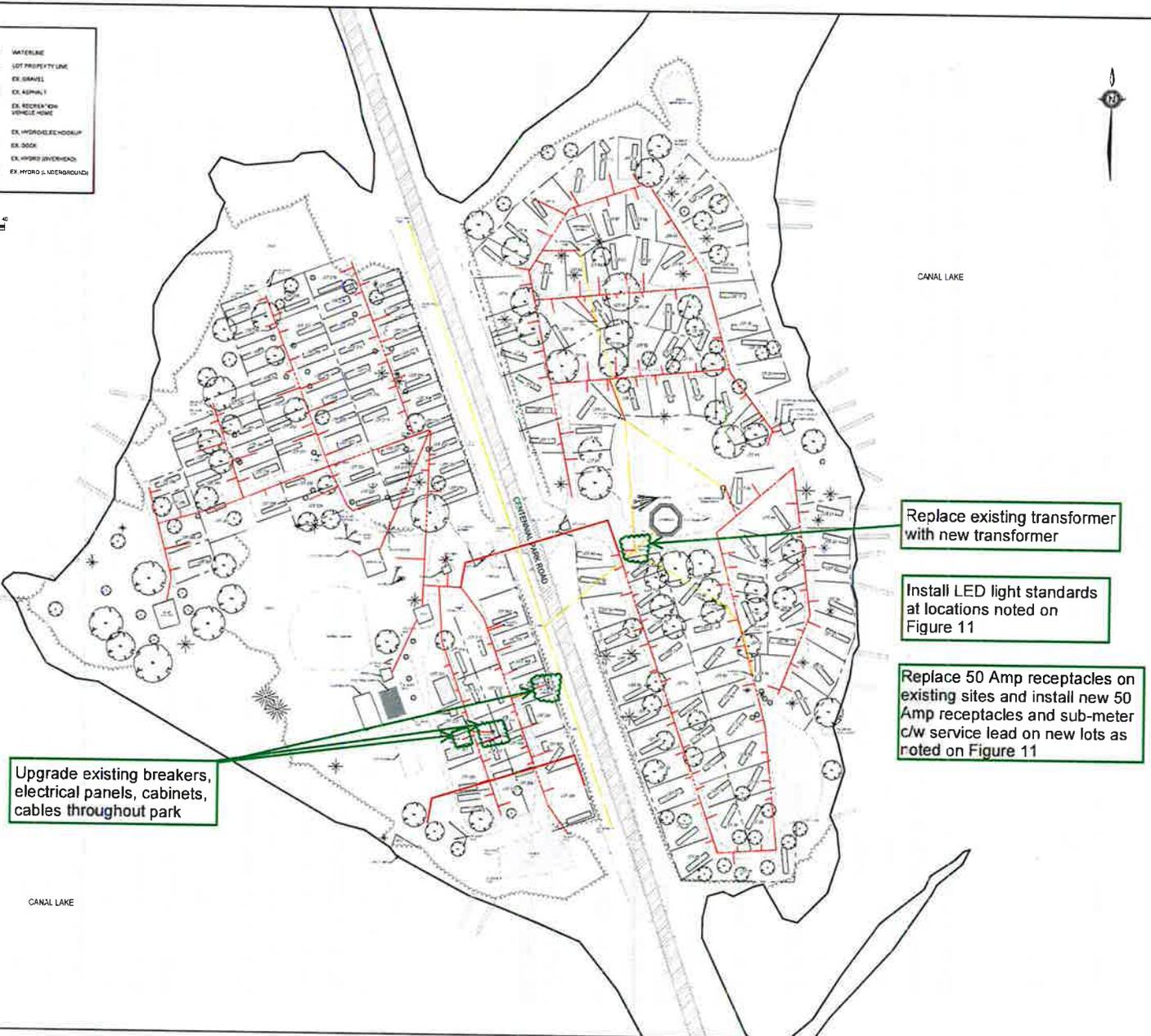
NO.	DATE	REVISION DESCRIPTION	BY



CENTENNIAL TRAILER PARK
CITY OF KAWARTHA LAKES

PR. ELECTRICAL INFRASTRUCTURE

DRAWN BY	APPROVED BY	PROJECT NO.	Figure 13
R.E.		725254	
DESIGNED BY	DATE	SCALE	
	NOVEMBER 2023	1:1000	



CANAL LAKE

CANAL LAKE

4.2.6 Telecommunications Infrastructure

As noted in Section 2.2.6, the Centennial Trailer Park currently provides free Internet service via Wi-Fi to residents. The Wi-fi is available in proximity to the park office on the west side of the park as the range of the Wi-fi modem is limited. Additional telecommunications infrastructure is not provided to the residents; however, residents do have the option of paying for telecommunications companies to install telecom cable to their individual lot. While it is recommended that the free Wi-Fi service for residents continue, additional telecommunications infrastructure has not been recommended as part of this Master Plan.

4.2.7 Green Infrastructure Opportunities

Green infrastructure is typically defined as 'natural vegetative features and systems, parklands, stormwater management systems, trees, and permeable surfaces'. It has also been referred to as 'blue-green' infrastructure which incorporates features that assist in meeting climate change goals such as efficient water use. The following green infrastructure opportunities should be explored during the implementation stage of the recommendations stemming from the Centennial Trailer Park Master Plan:

- Rainwater harvesting: direct downspouts to vegetated areas and/or collect rainwater in rain barrels to use for watering lawns or gardens.
- Continue to enforce restriction on using potable water within the park for lawn or garden watering.
- Incorporate dense 'no-mow' vegetation, bioswales, and rain gardens where possible to reduce stormwater runoff and improve water quality.
- Incorporate permeable pavement where practical to reduce stormwater runoff and improve water quality.
- Future renovations within the communal washroom and/or laundry facilities should consider low-flow appliances.

5 COST ESTIMATES AND RECOMMENDED PHASING

5.1 Cost Estimates

As described in the previous sections, the Preferred Concept Plan has been developed to address the infrastructure concerns identified through the background review and ensure the preservation and sustainability of the park over the next 20 years. The capital costs for each infrastructure project were estimated using a unit rate construction cost and considered the rural nature of the park and typical reinstatement costs. The capital costs assume an additional 20% for additional construction, engineering, and design costs and a 30% contingency. Refer to **Appendix B** for the detailed cost estimate.

The maintenance costs were estimated based on data provided by the City for the last 5 years (2019 to 2023) and consider the approximate service life of each assets. Operational costs related to City staff salaries are not included within the cost estimates below. Annual inflation rates are anticipated to increase all of the costs noted below in **Table 10**.

Table 10: Summary of Capital and O&M Costs for Preferred Concept Plan

Asset Class	Stand-Alone Improvements	Annual Maintenance Costs	Notes
Water Infrastructure	<ul style="list-style-type: none"> Water service connections for new lots \$82,000 	<ul style="list-style-type: none"> \$15,000 for Years 1-5 \$20,000 for Years 5-15 \$25,000 for Years 15-20 	As the water infrastructure nears end-of life, it is anticipated that larger repairs will be required which is reflected in the increasing annual maintenance costs.
Wastewater Infrastructure	<ul style="list-style-type: none"> Extension of existing sewer to service new lots & new servicing connections \$90,000 Septic Evaluation \$16,000 Septic System (East Side) \$310,000 Septic System (West Side) \$310,000 Tank 1 system \$600,000 Tank 2 system \$325,000 Tank 3 system \$455,000 Tank 4 system \$515,000 Tank 5 system \$315,000 Tank 6 system \$560,000 Tank 7 system \$385,000 	Ongoing maintenance (annual pumps, etc.) \$15,000	<ul style="list-style-type: none"> The capital cost of septic systems varies significantly with soil type (T-time, etc.), groundwater level, proximity of materials, etc. These factors will need to be confirmed via site investigations. The new collection systems will reduce staff operational costs as pump-out operations will be limited to the tanks, however the expanded collection system will involve additional maintenance.
Stormwater (Drainage) & Roads	<ul style="list-style-type: none"> Road re-fresh & resurfacing of existing parking areas \$125,000 New parking areas \$695,000 Construct gravel road to new lots (Street C) \$70,000 	Ongoing maintenance (clearing culverts, pothole repair, etc.) \$8,000	
Electrical Infrastructure	<ul style="list-style-type: none"> Upgrade existing lots to 50 amp electrical system \$1.6M New 50 amp service to new lots \$75,000 	<ul style="list-style-type: none"> \$10,000 before upgrade \$3,000 after upgrade 	Upgraded system will reduce maintenance and service calls.
Telecom Infrastructure	None	\$3,700	Estimated current cost of telecommunications for park.

5.2 Phasing

Given the scope of the infrastructure improvements recommended through this Master Plan, it is anticipated that the projects will be completed over time as budget becomes available. The phasing of the infrastructure improvements have been broken into Short-Term (within 3 years), Medium-Term (within 10 years), and Long-Term (within 20 years) priorities. The recommended improvements have been allocated into the various priority categories based on the information available at the time of this report's completion. However, it is anticipated that these priorities will evolve over time given regular condition reviews of the various infrastructure assets within the park.

Short-Term (within 3 years):

- Septic evaluation
- New septic systems (if warranted based on septic evaluations)
- Road re-fresh & re-surfacing of existing parking areas

Medium-Term (within 10 years):

- Upgrade park to 50 amp electrical service
- Construct new parking areas

Long-Term (within 20 years):

- New wastewater collection systems (each of the collection systems can be constructed independently to phase the capital costs)

The seven (7) new lots are recommended to be implemented as space becomes available within the trailer park.

5.3 Implementation

The following requirements should be considered through the implementation program, primarily during the detailed design of the projects:

- Refinement of infrastructure location and alignment;
- Identification of preferred construction methodologies;
- Completion of additional supporting investigations as required (e.g., geotechnical, hydrogeological, etc.);
- Review and mitigation of potential construction related impacts; and,
- Satisfying all provincial, municipal, and conservation authority approval requirements.

With respect to the cost estimates provided in **Appendix B**, this estimate will be further developed and refined during the implementation stage as more detailed information becomes available.

6 CONCLUSIONS

As detailed in this report, the existing infrastructure within the Centennial Trailer Park was reviewed and evaluated based on the available background information. Design criteria from the City was reviewed to assist in forming a design basis for infrastructure recommendations. In order to determine an accurate demand on the existing water and wastewater systems within the park, an analysis of the recorded water takings within the park was completed. This analysis indicated that on average the daily water demand was below the limits set out in the park's Permit To Take Water (PTTW). When applying a peak hour demand factor, the majority of days remained below the PTTW maximum minute limit albeit with a few outliers which were associated with higher-demand days.

Two alternative concept plans were considered within this Master Plan. Extensive consultation was conducted with City staff, stakeholders, and park residents to inform the Preferred Concept Plan which includes the following features:

- Centralized floating docks on the west and east sides of the park to replace the existing docks.
- Increase and renovate the beach area, including armourstone edging to stabilize the shoreline. Provide better access to the water via a cantilevered dock.
- New open play area on west side which includes disc golf, walking trail, and new tree planting.
- Revitalize open play area on east side with walking trail, buffer planting, and new tree planting.
- Lighting throughout the park and along walking trails.
- Refresh the community hall & main office.
- Improve multi-use courts with new pavement.
- Upgrade to a 50 amp electrical service throughout the park, complete with separate metering.
- Delineated parking areas for additional cars and boat trailers.
- Reduce larger existing lots into smaller lots to improve consistency.
- Seven (7) additional lots. Five additional lots on west side and two additional lots on east side.
- Evaluate existing septic system and replace if required. For lots requiring pump-out operations, install localized gravity collection systems to centralized holding tanks to minimize spills and improve health and safety for park staff.
- Refresh roadways throughout the park.

Infrastructure recommendations were provided to maintain and/or improve (where indicated by the Master Plan recommendations) the park. Capital cost estimates were provided for the infrastructure recommendations with ongoing operation & maintenance costs informed by budget records from the last five years. The anticipated phasing of the infrastructure improvements, along with implementation considerations, were provided to guide the enactment of the Master Plan recommendations.

APPENDIX A

TOPOGRAPHIC SURVEY

LEGEND

	WATER LINE
	LOT PROPERTY LINE
	EX. GRAVEL
	EX. ASPHALT
	EX. RECREATION VEHICLE HOME
	EX. HYDROLEVEL HOOKUP
	EX. DOCK
	EX. CONTOURS



NOTES

BENCH MARKS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND ELEVATION OF ALL BENCH MARKS AND FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON.

BEFORE SETTING ANY OF THE CONTRACTOR'S WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND ELEVATION OF ALL BENCH MARKS AND FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON.

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REV	DATE	DESCRIPTION	BY
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BluePlan
ENGINEERING

CENTENNIAL TRAILER PARK
CITY OF KAWARTHA LAKES

BASE PLAN WITH CONTOURS

DRAWN BY A.K.	EXPANDED BY -	PROJECT NO. T2054	DRAWING NO. C3
DESIGNED BY -	DATE NOVEMBER 2021	SCALE 1:1000	

LEGEND	
	WATER LINE
	LOT PROPERTY LINE
	EX. DRIVE/
	EX. ALDRIFT
	EX. RECREATION VEHICLE HOME
	EX. HYDRULIC HOORUP
	EX. DOCK
	EX. SPOT ELEVATION



NOTES

BENCH MARKS

ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED. THE USER SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF THE INFORMATION PROVIDED AND SHALL BE SOLELY RESPONSIBLE FOR ANY ERRORS OR OMISSIONS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS OF THE USER.

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NO.	DATE	REVISION/DESCRIPTION	BY



CENTENNIAL TRAILER PARK
CITY OF KAWARTHA LAKES

BASE PLAN WITH ELEVATIONS

DESIGN BY	APPROVED BY	PROJECT NO.	DRAWING NO.
		22054	C2
DESIGNED BY	DATE	SCALE	
	NOVEMBER 2023	1:100	

APPENDIX B

COST ESTIMATES

Project No. 723054
 Project Name: Centennial Trailer Park Master Plan
 Description: Wastewater System
 Date: 2/14/2024

Estimate Class (refer to table below): Class 5

Collection System						
Item	Item Description	Estimated Quantity	Unit	Unit Price	Total Amount	Notes
Tank 1 System						
1	Supply & install 300mm dia. PVC sanitary sewer	205	m	\$ 450	\$ 92,250.00	
2	Gravel driveway restoration	205	m ²	\$ 60	\$ 12,300.00	
3	Supply & install 1200mm dia. sanitary manhole	5	each	\$ 12,000	\$ 60,000.00	
4	Supply & install sanitary service connection to lot	25	each	\$ 1,500	\$ 37,500.00	
5	Cast-in-place concrete holding tank	233	m ³	\$ 700	\$ 163,100.00	
6	Allowance for float sensors in holding tank	1	each	\$ 20,000	\$ 20,000.00	
Sub-total:					\$ 385,150.00	
Tank 2 System						
1	Supply & install 300mm dia. PVC sanitary sewer	100	m	\$ 450	\$ 45,000.00	
2	Gravel driveway restoration	100	m ²	\$ 60	\$ 6,000.00	
3	Supply & install 1200mm dia. sanitary manhole	3	each	\$ 12,000	\$ 36,000.00	
4	Supply & install sanitary service connection to lot	12	each	\$ 1,500	\$ 18,000.00	
5	Cast-in-place concrete holding tank	120	m ³	\$ 700	\$ 84,000.00	
6	Allowance for float sensors in holding tank	1	each	\$ 20,000	\$ 20,000.00	
Sub-total:					\$ 209,000.00	
Tank 3 System						
1	Supply & install 300mm dia. PVC sanitary sewer	140	m	\$ 450	\$ 63,000.00	
2	Gravel driveway restoration	140	m ²	\$ 60	\$ 8,400.00	
3	Supply & install 1200mm dia. sanitary manhole	3	each	\$ 12,000	\$ 36,000.00	
4	Supply & install sanitary service connection to lot	19	each	\$ 1,500	\$ 28,500.00	
5	Cast-in-place concrete holding tank	193	m ³	\$ 700	\$ 135,100.00	
6	Allowance for float sensors in holding tank	1	each	\$ 20,000	\$ 20,000.00	
Sub-total:					\$ 291,000.00	
Tank 4 System						
1	Supply & install 300mm dia. PVC sanitary sewer	190	m	\$ 450	\$ 85,500.00	
2	Gravel driveway restoration	190	m ²	\$ 60	\$ 11,400.00	
3	Supply & install 1200mm dia. sanitary manhole	4	each	\$ 12,000	\$ 48,000.00	
4	Supply & install sanitary service connection to lot	19	each	\$ 1,500	\$ 28,500.00	
5	Cast-in-place concrete holding tank	193	m ³	\$ 700	\$ 135,100.00	
6	Allowance for float sensors in holding tank	1	each	\$ 20,000	\$ 20,000.00	
Sub-total:					\$ 328,500.00	
Tank 5 System						
1	Supply & install 300mm dia. PVC sanitary sewer	90	m	\$ 450	\$ 40,500.00	
2	Gravel driveway restoration	90	m ²	\$ 60	\$ 5,400.00	
3	Supply & install 1200mm dia. sanitary manhole	2	each	\$ 12,000	\$ 24,000.00	
4	Supply & install sanitary service connection to lot	13	each	\$ 1,500	\$ 19,500.00	
5	Cast-in-place concrete holding tank	132	m ³	\$ 700	\$ 92,400.00	
6	Allowance for float sensors in holding tank	1	each	\$ 20,000	\$ 20,000.00	
Sub-total:					\$ 201,800.00	

Tank 6 System						
1	Supply & install 300mm dia. PVC sanitary sewer	205	m	\$ 450	\$ 92,250.00	
2	Gravel driveway restoration	205	m ²	\$ 60	\$ 12,300.00	
3	Supply & install 1200mm dia. sanitary manhole	3	each	\$ 12,000	\$ 36,000.00	
4	Supply & install sanitary service connection to lot	23	each	\$ 1,500	\$ 34,500.00	
5	Cast-in-place concrete holding tank	233	m ³	\$ 700	\$ 163,100.00	
6	Allowance for float sensors in holding tank	1	each	\$ 20,000	\$ 20,000.00	
				Sub-total:	\$ 358,150.00	
Tank 7 System						
1	Supply & install 300mm dia. PVC sanitary sewer	140	m	\$ 450	\$ 63,000.00	
2	Gravel driveway restoration	140	m ²	\$ 60	\$ 8,400.00	
3	Supply & install 1200mm dia. sanitary manhole	3	each	\$ 12,000	\$ 36,000.00	
4	Supply & install sanitary service connection to lot	14	each	\$ 1,500	\$ 21,000.00	
5	Cast-in-place concrete holding tank	140	m ³	\$ 700	\$ 98,000.00	
6	Allowance for float sensors in holding tank	1	each	\$ 20,000	\$ 20,000.00	
				Sub-total:	\$ 246,400.00	
Treatment						
Item	Item Description	Estimated Quantity	Unit	Unit Price	Total Amount	Notes
1	Conduct evaluation of existing septic systems	2	each	\$ 5,000	\$ 10,000	
2	Supply & install new septic system	2	each	\$ 200,000	\$ 400,000	Includes removal & disposal of existing septic systems
				Sub-total:	\$ 410,000.00	
				Sub-total Construction:	\$ 2,430,000	
				Additional Construction Costs (10%):	\$ 243,000	Includes mobilization/demobilization, inspection, bonding, insurance
				Engineering / Design Costs (10%):	\$ 243,000	Includes design fees & contract admin
				Sub-total Construction and Engineering:	\$ 2,916,000	
				Contingency (30%):	\$ 874,800.0	
				Total Cost:	\$ 3,790,800.0	

ESTIMATE CLASS	Primary Characteristic	Secondary Characteristic		
	MATURITY LEVEL OF PROJECT DEFINITION DELIVERABLES Expressed as % of complete definition	END USAGE Typical purpose of estimate	METHODOLOGY Typical estimating method	EXPECTED ACCURACY RANGE Typical variation in low and high ranges ¹⁸⁾
Class 5	0% to 2%	Functional area, or concept screening	SF or m ² factoring, parametric models, judgment, or analogy	L: -20% to -30% H: +30% to +50%
Class 4	1% to 15%	or Schematic design or concept study	Parametric models, assembly driven models	L: -10% to -20% H: +20% to +30%
Class 3	10% to 40%	Design development, budget authorization, feasibility	Semi-detailed unit costs with assembly level line items	L: -5% to -15% H: +10% to +20%
Class 2	30% to 75%	Control or bid/tender, semi-detailed	Detailed unit cost with forced detailed take-off	L: -5% to -10% H: +5% to +15%
Class 1	65% to 100%	Check estimate or pre bid/tender, change order	Detailed unit cost with detailed take-off	L: -3% to -5% H: +3% to +10%

Note: [a] The state of construction complexity and availability of applicable reference cost data affect the range markedly. The +/- value represents typical percentage variation of actual cost from the cost estimate after application of contingency (typically at a 50% level of confidence) for given scope.

Table 1 – Cost Estimate Classification Matrix for Building and General Construction Industries

In addition to the degree of project definition, estimate accuracy is also driven by other systemic risks such as:

- Complexity of the project.
- Quality of reference cost estimating data.
- Quality of assumptions used in preparing the estimate.
- Experience and skill level of the estimator.
- Estimating techniques employed.
- Time and level of effort budgeted to prepare the estimate.

Systemic risks such as these are often the primary driver of accuracy; however, project-specific risks (e.g. risk events) also drive the accuracy range¹⁹⁾.

Project No. 723054
Project Name: Centennial Trailer Park Master Plan
Description: Electrical System
Date: 3/28/2024

Estimate Class (refer to table below): Class 5

Item	Item Description	Estimated Quantity	Unit	Unit Price	Total Amount	Notes
West System						
1	Replacement of existing transformer with new transformer (by local utility provider).	1	LS	\$ 100,000	\$ 100,000.00	Anticipated new transformer to be 75 kVA, 3 Phase, 600V Secondary, Existing transformer secondary side cables will need to be replaced up to the existing (assumed) 30Amp breaker.
2	Upgrades to breakers, electrical panels, cabinets, cables,	1	LS	\$ 125,000	\$ 125,000.00	
3	Installation of LED light standard (lighting pole, fixture, & cables)	45	each	\$ 10,000	\$ 450,000.00	
4	Light standard structural footing	45	each	\$ 2,000	\$ 90,000.00	
5	Replacement of 50 Amp receptable c/w meter at lots	172	each	\$ 1,500	\$ 258,000.00	
Sub-total Construction:					\$ 1,023,000	
Additional Construction Costs (10%):					\$ 102,300	Includes mobilization/demobilization, inspection, bonding, insurance
Engineering / Design Costs (10%):					\$ 102,300	Includes design fees & contract admin
Sub-total Construction and Engineering:					\$ 1,227,600	
Contingency (30%):					\$ 368,280.0	
Total Cost:					\$ 1,595,880.0	

ESTIMATE CLASS	Primary Characteristic	Secondary Characteristic		EXPECTED ACCURACY RANGE Typical variation in low and high ranges ¹⁹
	MATURITY LEVEL OF PROJECT DEFINITION DELIVERABLES Expressed as % of complete definition	END USAGE Typical purpose of estimate	METHODOLOGY Typical estimating method	
Class 5	0% to 2%	Functional area, or concept screening	SP or m ² factoring, parametric models, judgment, or analogy	L: -20% to -30% H: +30% to +50%
Class 4	1% to 15%	or Schematic design or concept study	Parametric models, assembly driven models	L: -10% to -20% H: +20% to +30%
Class 3	10% to 40%	Design development, budget authorization, feasibility	Semi-detailed unit costs with assembly level line items	L: -5% to -15% H: +10% to +20%
Class 2	30% to 75%	Control or bid/tender, semi-detailed	Detailed unit cost with forced detailed take-off	L: -5% to -10% H: +5% to +15%
Class 1	65% to 100%	Check estimate or pre bid/tender, change order	Detailed unit cost with detailed take-off	L: -3% to -5% H: +3% to +10%

Note: (a) The scope of construction complexity and availability of applicable reference cost data affect the range reported. The +/- value represents typical percentage variation of actual cost from the cost estimate after application of contingencies (typically at a 90% level of confidence) for given scope.

Table 1 – Cost Estimate Classification Matrix for Building and General Construction Industries

In addition to the degree of project definition, estimate accuracy is also driven by other systemic risks such as:

- Complexity of the project.
- Quality of reference cost estimating data.
- Quality of assumptions used in preparing the estimate.
- Experience and skill level of the estimator.
- Estimating techniques employed.
- Time and level of effort budgeted to prepare the estimate.

Systemic risks such as these are often the primary driver of accuracy; however, project-specific risks (e.g. risk events) also drive the accuracy range.¹⁹

Assumptions / Notes:

Detailed information regarding the existing electrical system and/or electrical load demands were not available for the purposes of developing this cost estimate. This cost estimate was completed based on the information available at the time of the report's completion.

Client has indicated that power loss at the park occurs due to nuisance tripping in the campsite electrical system and indicates the preference to modify the system to provide a 50A electrical service to park residents. Confirmation via a detailed electrical servicing study will be required to confirm the sufficient power loading required within the park given the increased load associated with additional lots and new lighting loads. Given the additional load proposed to be placed on the system, the new service has been assumed to be a 75Amp, 600V service.

Provided cost estimates have not been confirmed with vendors and/or contractors and are subject to change. Costs do not include labour costs. All costs are to be confirmed at detailed design stage.

Existing utility transformer is assumed to be 30 kVA, 3Phase and 600V (secondary side). Planned electrical service upgrade (from 30 Amp service to 75 Amp service), will require existing 30 kVA utility transformer to be replaced with a 75 kVA transformer. Local electrical utility will need to be contacted to verify requirements. Local electrical utility will provide requirements as well as upgrade costs with higher certainty. These steps are to take place during the detailed design phase of the project.

It is assumed that the existing overhead electrical lines have sufficient capacity for such a service upgrade.

It is assumed that the existing hydro poles can be utilized and that new hydro poles will not need to be installed.

It is assumed that the existing main breaker is a 30Amp, 3 Phase, and 600V rated, and will be replaced with a new 75Amp, 3 Phase 600V rated breaker.

It is assumed that there is a step-down transformer (600V/120/240V) after the existing main breaker to bring 600V to 120/240V.

It is assumed that there is a 120V/240 lighting panel(s) after the step-down transformer. Quantity of branch circuits of the assumed lighting panel(s) are not known.

It is assumed that each lot is serviced with a 30 Amp, 120V rated electrical outlet.

Project No. 723054
 Project Name: Centennial Trailer Park Master Plan
 Description: Roadways
 Date: 3/27/2024

Estimate Class (refer to table below): Class 5

Collection System						
Item	Item Description	Estimated Quantity	Unit	Unit Price	Total Amount	Notes
West System						
1	Resurfacing of existing parking areas adjacent to new parking areas	3080	m ²	\$ 20	\$ 61,600.00	
2	Construction of new parking areas	3700	m ²	\$ 120	\$ 444,000.00	
3	Road refresh	1	LS	\$ 20,000	\$ 20,000.00	
Sub-total:					\$ 525,600.00	
Sub-total Construction:					\$ 525,600	
Additional Construction Costs (10%):					\$ 52,560	Includes mobilization/demobilization, inspection, bonding, insurance
Engineering / Design Costs (10%):					\$ 52,560	Includes design fees & contract admin
Sub-total Construction and Engineering:					\$ 630,720	
Contingency (30%):					\$ 189,216.0	
Total Cost:					\$ 819,936.0	

Project No. 723054
Project Name: Centennial Trailer Park Master Plan
Description: New lots
Date: 3/28/2024
Estimate Class (refer to table below): Class 5

Additional Infrastructure to Accommodate Additional Lots						
Item	Item Description	Estimated Quantity	Unit	Unit Price	Total Amount	Notes
Water						
1	Supply & install water service connection to lot	7	each	\$ 7,500.00	\$ 52,500.00	
					Sub-total:	\$ 52,500.00
Wastewater						
1	Supply & install 300mm dia. PVC sanitary sewer. Connect to existing wastewater collection system.	50	m	\$ 450	\$ 22,500.00	
2	Supply & install 1200mm dia. sanitary manhole	2	each	\$ 12,000	\$ 24,000.00	
3	Supply & install sanitary service connection to lot	7	each	\$ 1,500	\$ 10,500.00	
					Sub-total:	\$ 57,000.00
Electrical						
1	New 50 Amp service for new lots c/w receptacle	7	each	\$ 7,000.00	\$ 49,000.00	
					Sub-total:	\$ 49,000.00
Roadways						
1	Construct 4 metre width gravel roadway (Street C; approximately length of 85 metres) c/w existing removals	340	m ²	130	\$ 44,200.00	
					Sub-total:	\$ 44,200.00
					Sub-total Construction:	\$ 202,700
					Additional Construction Costs (10%):	\$ 20,270 Includes mobilization/demobilization, inspection, bonding, insurance
					Engineering / Design Costs (10%):	\$ 20,270 Includes design fees & contract admin
					Sub-total Construction and Engineering:	\$ 243,240
					Contingency (30%):	\$ 72,972.0
					Total Cost:	\$ 316,212.0

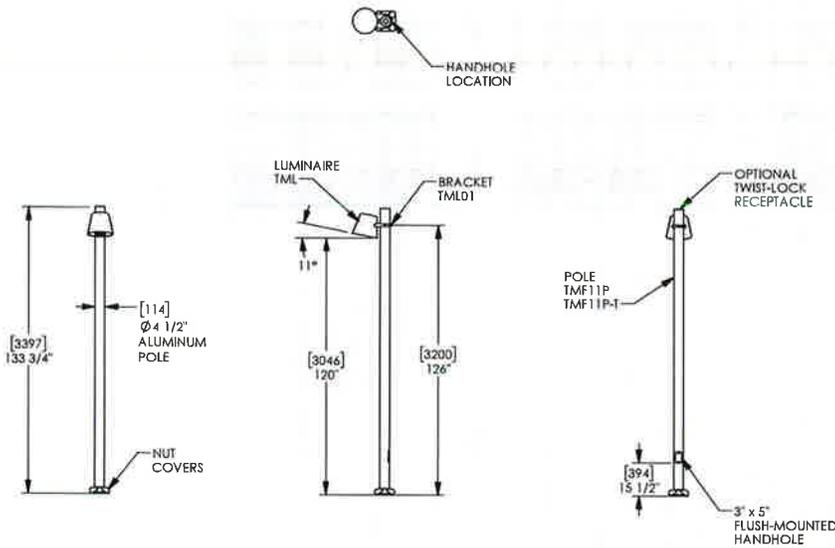
F Park Design Standards

F.1 Pedestrian Level Lighting

SANTA & COLE Tumbler Area Light, 3.4m (11.2ft) height pole with single column bracket
 landscapeforms.com

Date: 01/28/2020
 Ph: 800.521.2546

LUMINAIRE AND POLE ARE ORDERED SEPARATELY. SEE PRODUCT DATA SHEET FOR LUMINAIRE OPTIONS.
 ANCHORING HARDWARE INCLUDED WITH POLE.



landscapeforms Drawing: CB0001
 Dimensions are in inches (mm)

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F.2 Wall Mounted Lighting

SANTA & COLE
urb|de|rnis
Product Drawing

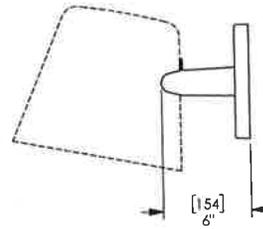
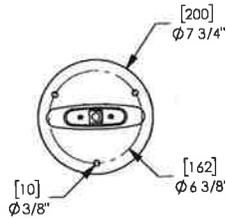
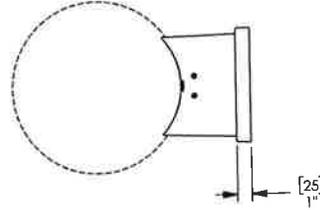
Tumbler

wall mount bracket

Date: 02/05/2020
www.landscapeforms.com Ph: 800.521.2546

LUMINAIRE SPECIFIED SEPARATELY

HARDWARE FOR ATTACHING BRACKET TO WALL IS NOT INCLUDED.



landscapeforms
Drawing: TML02
Dimensions are in inches (mm)

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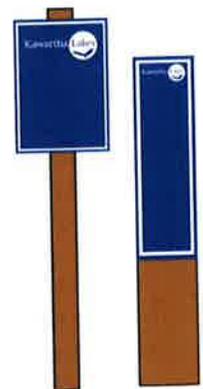
F.3 Sample Trailhead Signage



Major trailhead (left) and minor trailhead (right) signage



Off-trail / navigational signage



Trail / directional signage

F.4 List of Acceptable Tree Species



List of Acceptable Tree Species for City of Kawartha Lakes Planting

Botanical Name	Common Name	Locational Use
<i>Abies concolour</i>	white fir	park
<i>Acer griseum</i>	paper bark maple	street
<i>Acer miyabei</i> 'Morton'	state street maple	street
<i>Acer pseudoplatanus</i>	sycamore maple	street
<i>Acer saccharinum</i>	silver maple	street
<i>Acer saccharum</i> cv.	sugar maple	street
<i>Acer rubrum</i> cv.	red maple	street
<i>Acer x freemanii</i>	Freeman maple	street
<i>Aesculus glabra</i>	Ohio buckeye	street
<i>Aesculus carnea</i>	red horse chestnut	street
<i>Betula nigra</i>	river birch	park
<i>Carpinus caroliniana</i> 'Uxbridge'	Rising Fire hornbeam	park
<i>Catalpa speciosa</i>	northern catalpa	park
<i>Celtis occidentalis</i>	common hackberry	street
<i>Corylus columa</i>	turkish hazel	street
<i>Fagus grandiflora</i>	American beech	park
<i>Fagus sylvatica</i>	European beech	park
<i>Ginkgo biloba</i>	maidenhair tree	street
<i>Gleditsia triacanthos</i> cv.	locust	street
<i>Gymnocladus dioica</i> cv.	Kentucky coffee tree	street
<i>Liquidambar styraciflua</i> cv.	sweetgum	park
<i>Liriodendron tulipifera</i> cv.	tulip tree	park
<i>Malus</i> sp.	crabapple	park
<i>Nyssa sylvatica</i>	black gum	park
<i>Ostrya virginiana</i>	ironwood	park
<i>Picea glauca</i>	white spruce	park
<i>Pinus strobus</i>	white pine	park
<i>Platanus</i> sp.	planetree	street
<i>Prunus serotina</i>	black cherry	park
<i>Pyrus calleryana</i> cv.	ornamental pear	street
<i>Quercus alba</i>	white oak	street
<i>Quercus coccinea</i>	scarlet oak	street
<i>Quercus macrocarpa</i>	bur oak	street
<i>Quercus ellipsoidalis</i>	Northern pin oak	street
<i>Quercus robur</i>	English oak	street
<i>Quercus rubra</i>	red oak	street
<i>Quercus velutina</i>	black oak	street
<i>Sorbus</i> sp.	mountain ash	street
<i>Tilia</i> sp.	linden	street
<i>Tsuga canadensis</i>	Eastern hemlock	park
<i>Ulmus</i> sp.	elm	street

URBAN FLARE 6' BENCH



As the centerpiece of Classic Displays' new Urban Series, the Urban Flare 6' bench offers a contemporary feel and look to a classic ribbon bench design. The back and seating area features a unique laser-cut "keyhole" shaped pattern adding visual interest, with the same pattern appearing on most every piece in the Urban Series product line. The flared side arms add an extra touch of elegance while providing proper ergonomics with additional grip width for entering and exiting the bench. The Urban Flare 6' bench is manufactured from galvanized steel that is powder-coated offering increased protection against moisture, impact, chipping, scratching, abrasion, corrosion and fading. The Urban Flare 6' bench can be shipped "knocked down" for easy transport, and is also available in 2', 3', and 4' lengths with various arm configurations for Accessibility. Replacement components are readily available. The Urban Flare 6' Bench features predrilled legs for easy ground mounting. All sizes meet the National Standard of Canada for Accessible Design.



*Centre Arm with no side arms also available ☒



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Right for you since 1977

URBAN FLARE 4' BENCH



The Urban Flare 4' Bench was designed with flexible outdoor seating in mind, providing a comfortable and socially distanced seating area for an individual, couple, or parent with children. As part of the Urban series line featuring benches of various sizes and configurations, the 4' seating option pairs nicely with a 6' bench, or its smaller 2' and 3' seat siblings. The Urban Flare 4' Bench features predrilled legs for easy ground mounting, and could also be installed freestanding and secured locations. Manufactured from robust powder coated laser-cut and galvanized steel, The Urban Flare 4' Bench is available in multiple arm configurations for Accessible seating, and can be shipped unassembled to virtually every corner of North America. Replacement components are readily available.



*Centre Arm with no side arms also available ☒



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URBAN FLARE BENCH

Product Data Sheet

Urban Flare Bench 6'



Urban Flare Bench 4'



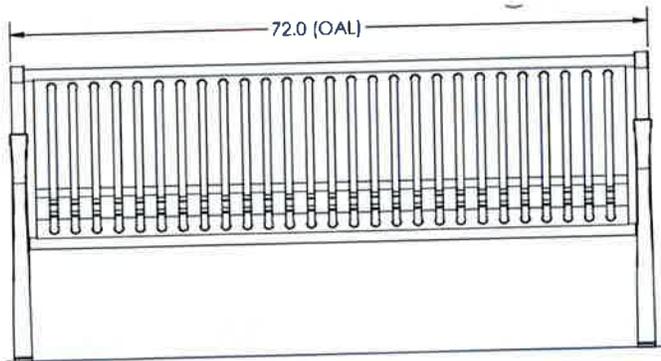
MATERIALS

- Zinc-Plated/Galvanized Powder-Coated Steel
- Stainless Steel Hardware

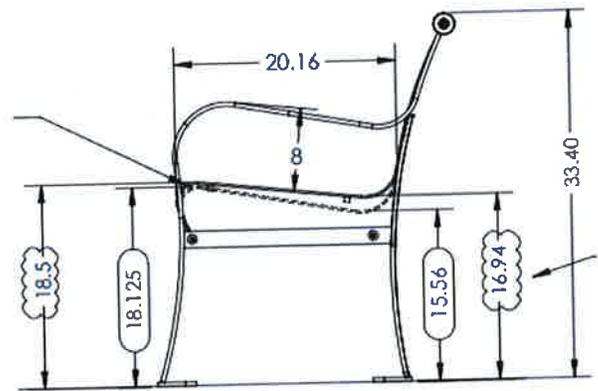
FINISHES

- Powder-Coated Epoxy Textured Black

6' Bench Shown Here



ELEVATION



SIDE VIEW

	4' Length	6' Length
Length	48"[1219mm]	72"[1829mm]
Depth	26.6"[676mm]	26.6"[676mm]
Height	33.4"[848mm]	33.4"[848mm]
Seat Height	18.1"[460mm]	18.1"[460mm]
Weight	140lbs[63.5kg]	182lbs[82.5kg]

TO SPECIFY

- Bench Length (4' or 6')
- Arm Configuration



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URBAN FLARE BENCH

Installation

- For Benches with pre-drilled Legs

Tools and Hardware Required:

- Hammer Drill
- Masonry Bit
- Expanding concrete/wedge anchor (stainless steel recommended) with locking nut

Instructions:

- Drill ½" deeper than anchor will penetrate
 - Deeper anchor will offer better hold
- Drill hole in concrete equal to diameter of anchor
 - Depth of Wedge Anchor = Thickness of material fastened + Minimum embedment
 - Leave space for nut and washer
- Insert wedge anchor into concrete
 - Turn nut clockwise while pulling the anchor up
 - Wedge clip between anchor & concrete.

Notes:

- Do not install anchor within 10 anchor diameters of other anchor, or within 5 anchor diameters of unsupported edge.
- Install on even concrete surface



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URBAN FLARE BENCH

Warranty

Classic Displays Site Furniture Warranty Statement

Classic Displays warrants to the original owner of a Classic Displays product for five years from the date of substantial completion, that the product they receive will be free from defective workmanship and materials when subjected to proper and normal uses.

Limitations of Liability

Classic Displays warrants that should defects occur with a Classic Displays product, the company herein recognizes that it will produce a replacement product and ship it to the original owner at no charge. Classic Displays shall not be liable for any consequential damages that the product may receive through incorrect usage, adverse environment conditions, or used in conjunction with materials harmful to the product.

In the event that defective materials are received, please advise us our office immediately to expedite replacement materials.

* **Acceptance of Merchandise:** Claims of products that are lost or damaged in transit are the responsibility of the customer in reporting the claim. When accepting shipment, missing cartons or visible damage must be noted on the carrier's bill of lading/receipt of delivery, and reported to our office. Claims must be filed with the delivering carrier as soon as possible or may result in refusal of claim by the carrier.

Maintenance

Wash with Soap and Water

- Mix 1/4 cup dish soap in a gallon of hot (not scalding) water.
- Scrub the metal surface with firm, circular strokes using a soft-bristled brush.
- Rinse this off thoroughly with hot water and then wipe it dry using a lint-free cloth.

Clean Off Hard Water

- Create a solution of equal parts white distilled vinegar and water.
- Rub the solution into the metal with a soft cloth or spray with a spray bottle.
- Dry with a cloth.



Classic Displays

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URBAN FLARE 6' STRAIGHT BENCH



The Urban Flare 6' Straight Bench is designed to complement the standard backed Urban Flare Bench in a setting where multiple bench configurations are required, or is equally suited as a standalone piece for sites where access to both sides of the bench is necessary. The Urban Flare 6' Straight Bench provides a lower profile look with its backless design, while emanating the same elegant design cues as featured throughout the Urban Series product line. Manufactured from laser-cut galvanized steel, the Urban Flare 6' Straight Bench provides maximum protection against the elements in any climate. The Urban Flare 6' Straight Bench can be shipped "knocked down" or fully assembled, and is also available in a 4' length.

Replacement components are readily available.



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URBAN FLARE 4' STRAIGHT BENCH



The Urban Flare 4' Straight Bench is the perfect solution for smaller areas where accessibility from both sides of the bench is required. The 4' Straight Bench compliments it's larger 6' sibling, as well as the entire Urban Series line of Site Furnishings. With pre-drilled feet for ground mounting, the Urban Flare 4' Straight Bench can also stand on its own 4 legs for a portable solution. Similar to all Urban Series Site Furnishings, the 4' Straight Bench is built from powder-coated laser-cut and galvanized steel ensuring maximum longevity with minimal maintenance requirements. Replacement components are readily available. For easy shipping throughout North America, the Urban Flare 4' Straight Bench can be shipped "knocked down".



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URBAN FLARE STRAIGHT BENCH

Product Data Sheet

Urban Flare Straight Bench 4'



Urban Flare Straight Bench 6'



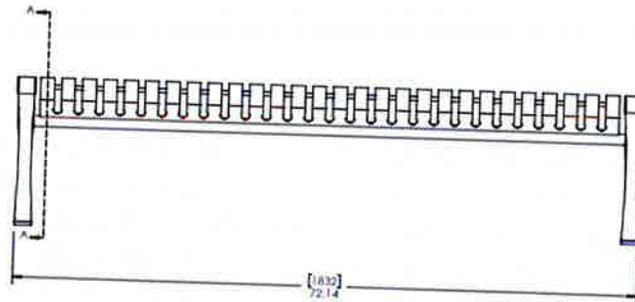
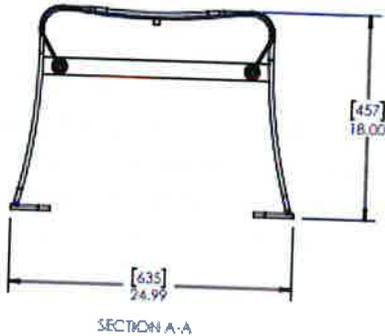
MATERIALS

- Zinc-Plated/Galvanized Powder-Coated Steel
- Stainless Steel Hardware

FINISHES

- Powder-Coated Epoxy Textured Black

6' Bench Shown Here:



TO SPECIFY

- Bench Length (4' or 6')

	4' Length	6' Length
Length	48" [1219mm]	72" [1829mm]
Depth	26.6" [676mm]	26.6" [676mm]
Height	18.1" [460mm]	18.1" [460mm]
Seat Height	18.1" [460mm]	18.1" [460mm]
Weight	92lbs [41.7kg]	120lbs [54.4kg]



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URBAN FLARE STRAIGHT BENCH

Installation

- For Benches with pre-drilled Legs

Tools and Hardware Required:

- Hammer Drill
- Masonry Bit
- Expanding concrete/wedge anchor (stainless steel recommended) with locking nut

Instructions:

- Drill ½" deeper than anchor will penetrate
 - Deeper anchor will offer better hold
- Drill hole in concrete equal to diameter of anchor
 - Depth of Wedge Anchor = Thickness of material fastened + Minimum embedment
 - Leave space for nut and washer
- Insert wedge anchor into concrete
 - Turn nut clockwise while pulling the anchor up
 - Wedge clip between anchor & concrete.

Notes:

- Do not install anchor within 10 anchor diameters of other anchor, or within 5 anchor diameters of unsupported edge.
- Install on even concrete surface



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URBAN FLARE STRAIGHT BENCH

Warranty

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Maintenance

Wash with Soap and Water

- Mix 1/4 cup dish soap in a gallon of hot (not scalding) water.
- Scrub the metal surface with firm, circular strokes using a soft-bristled brush.
- Rinse this off thoroughly with hot water and then wipe it dry using a lint-free cloth.

Clean Off Hard Water

- Create a solution of equal parts white distilled vinegar and water.
- Rub the solution into the metal with a soft cloth or spray with a spray bottle.
- Dry with a cloth.



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URBAN FLARE WASTE CONTAINER 120



Laser cut for maximum strength, style, and durability, the Urban Flare Waste Container 120 is a timeless design suitable for a wide range of settings. Fabricated from galvanized steel then powder coated, the Urban Flare Waste Container 120 includes a 32 gallon (120L) rotationally-molded polyethylene liner and pre-drilled feet for easy ground mounting with three anchor points. With its ergonomic side access door, operators can easily access the liner without lifting it up and out of the unit. An optional rain shield, lid stickers, and a customizable nameplate are also available. The Urban Flare Waste Container 120 comes standard in glossy black powder coated epoxy finish, and can also be specified in a wide range of colours. The Urban Flare Waste Container 120 ships fully assembled, with replacement components/liners readily available.

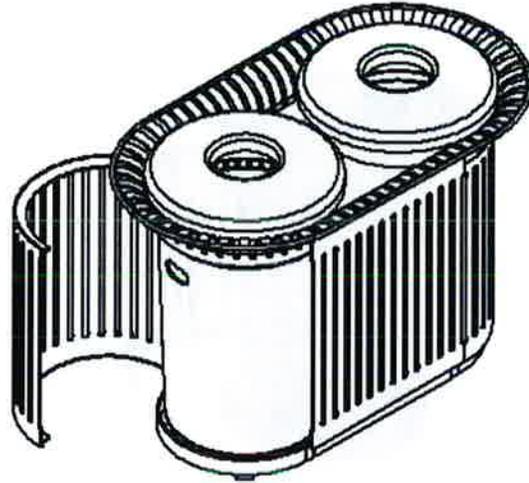


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URBAN FLARE WASTE CONTAINER 240



Manufactured from zinc-plated powder coated steel, the laser-cut Urban Flare Waste Container 240 provides extended capacity, or up to two additional streams for recycling for a total of 3 streams. The unit includes 2 x 32 gallon (120L) rotationally-molded polyethylene liners, where one liner can be subdivided into 2 x 16 gallon (60L) streams. Both liners have separate side door access, ensuring proper ergonomics when servicing the unit, reducing straining on the operator. Optional rain shields, lid stickers, and nameplates can also be added to further customize the unit. The unit is equipped with three pre-drilled feet for surface mount application. Powder coated Black finish is standard for this unit, however many additional colours are also available, including a Natural Galvanized Finish. The Urban Flare Waste Container 240 ships fully assembled, with replacement components/liners readily available.



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URBAN FLARE WASTE CONTAINER

Product Data Sheet



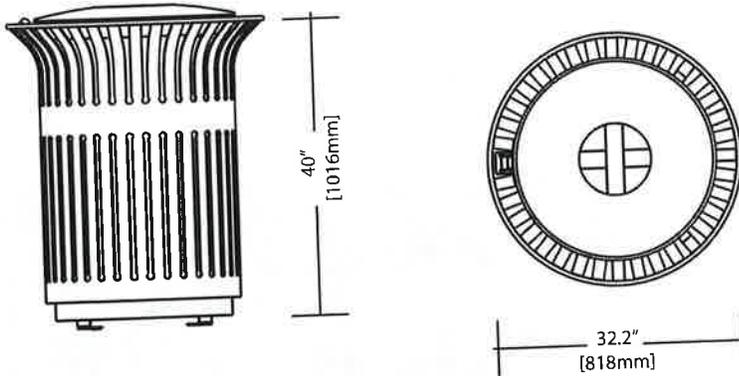
MATERIALS

- Electrostatically Zinc Plated Laser Cut Steel for Maximized Rust Protection
- Polyester Powdercoated Finish
- Stainless Steel Hardware

FEATURES

- Side Access Door with Keyless Locking Mechanism
- Pre-Drilled feet (3 anchor points)
- Includes one or two 32 gal (120L) Poly Liners
- Optional 3 stream option with one liner divided
- Optional Rain Shield
- Optional Custom Nameplates and Lid Stickers

120 Model Shown Here



TO SPECIFY

- Single (120L), or Multi-Stream (240L, 2 or 3 streams)
- Optional Rain Shields
- Optional Side Nameplates
- Optional Lid Stickers

	120 (1 stream)	240 (2-3 stream)
Length (Bottom)	25.5"[647mm]	50"[1270mm]
Length (Top)	32.2"[818mm]	56.7"[1440mm]
Width (Bottom)	25.5"[647mm]	25.5"[647mm]
Width (Top)	32.2"[818mm]	32.2"[818mm]
Height	40"[1016mm]	40"[1016mm]
Height with Rain Shield	50"[1270mm]	50"[1270mm]
Weight	135lbs[61kg]	250lbs[113kg]
Capacity	32 gal[120L]	64 gal[240L]

Optional Rain Shield



Optional Side Nameplate



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URBAN FLARE WASTE CONTAINER

Installation

- For pre-drilled Waste Bins

Tools and Hardware Required:

- Hammer Drill
- Masonry Bit
- Expanding concrete/wedge anchor (stainless steel recommended) with locking nut

Instructions:

- Drill $\frac{1}{2}$ " deeper than anchor will penetrate
 - Deeper anchor will offer better hold
- Drill hole in concrete equal to diameter of anchor
 - Depth of Wedge Anchor = Thickness of material fastened + Minimum embedment
 - Leave space for nut and washer
- Insert wedge anchor into concrete
 - Turn nut clockwise while pulling the anchor up
 - Wedge clip between anchor & concrete

Notes:

- Do not install anchor within 10 anchor diameters of other anchor, or within 5 anchor diameters of unsupported edge
- Base is pre-drilled for easy surface mounting (recommended)
- Can also be installed free-standing
- Install on even concrete surface



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URBAN FLARE WASTE CONTAINER

Warranty

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Maintenance

Wash with Soap and Water

- Mix 1/4 cup dish soap in a gallon of hot (not scalding) water.
- Scrub the metal surface with firm, circular strokes using a soft-bristled brush.
- Rinse this off thoroughly with hot water and then wipe it dry using a lint-free cloth.

Clean Off Hard Water

- Create a solution of equal parts white distilled vinegar and water.
- Rub the solution into the metal with a soft cloth or spray with a spray bottle.
- Dry with a cloth.



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METRO



The Metro bike rack is available in natural galvanized steel, or a zinc-plated finished with powder coated paint. Suitable for 2 bikes, the Metro bike rack can be specified as in-ground mounted, or a surface mounted unit.

**Surface
Mount**



In-Ground



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In-Ground



Surface Mount

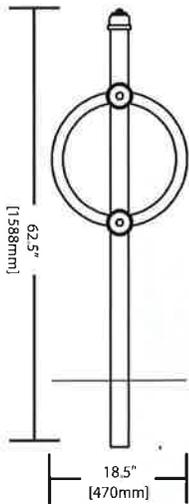
MATERIALS

- Zinc Plated or Galvanized Steel Pipe
- Cast Aluminum Ring and Cap

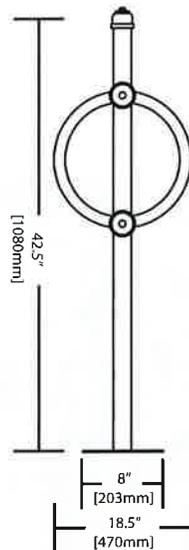
FEATURES

- Outdoor Application
- Available as a Pre-Drilled Surface Mount or as an In-Ground Model
- Powdercoated Black or Natural Galvanized Finish
- Optional Paint Colours Available
- Custom Embossing Available

In-Ground



Surface Mount



TO SPECIFY

- Surface Mount or In-Ground
- Powdercoated Black or Natural Galvanized Finish
- Optional Paint Colour
- Custom Embossing

	In-Ground	Surface Mount
Height	62.5" [1588mm]	42.5" [1080mm]
Width	18.5" [470mm]	18.5" [470mm]
Depth	6" [152mm]	6" [152mm]
Pipe Diameter	2.38" [60mm]	2.38" [60mm]
Baseplate Diameter		8" [203mm]
Weight	25 lbs [11 kg]	25 lbs [11 kg]



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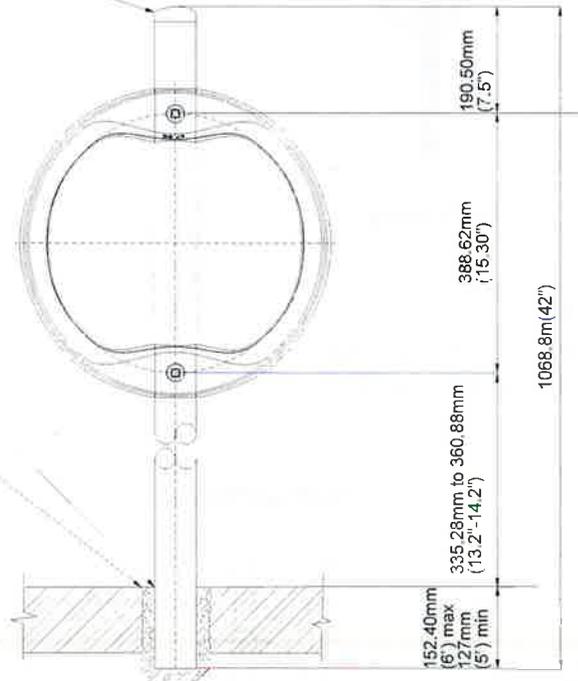
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In-Ground Mounting Installation

TYPICAL GALVANISED TERMINAL CAP
FOR 60.33 mm. (2.375") FENCE POST
SECURED TO PIPE

CORE DRILL 101.6mm(4")
DIAMETER HOLE
INTO SIDEWALK TO
DEPTH
OF 152.40mm(6")

USE CONCRETE GROUT
BETWEEN POLE
AND SIDEWALK
TO SECURE POLE



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METRO

Surface Mount Installation

Tools and Hardware Required:

- Hammer Drill
- Masonry Bit
- Expanding concrete/wedge anchor (stainless steel recommended) with locking nut

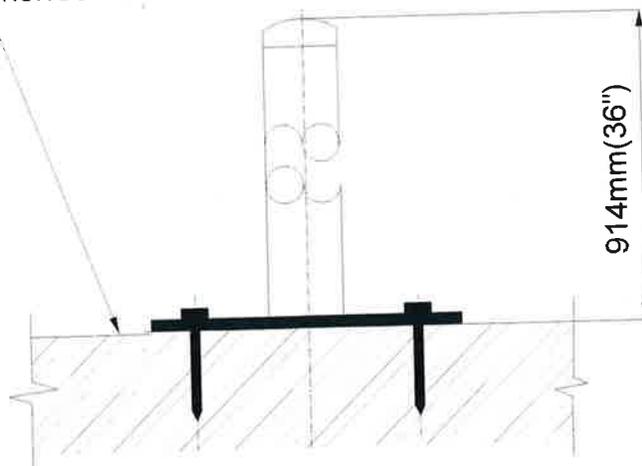
Instructions (Surface Mount)

- Drill ½" deeper than anchor will penetrate
 - Deeper anchor will offer better hold
- Drill hole in concrete equal to diameter of anchor
 - Depth of Wedge Anchor = Thickness of material fastened + Minimum embedment
 - Leave space for nut and washer
- Insert wedge anchor into concrete
 - Turn nut clockwise while pulling the anchor up
 - Wedge clip between anchor & concrete

Notes:

- Do not install anchor within 10 anchor diameters of other anchor, or within 5 anchor diameters of unsupported edge
- Install on even concrete surface

BASE PLATE
SECURED TO SIDEWALK
76.2mm(3") ANCHOR BOLTS



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METRO

Warranty

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Maintenance

Wash with Soap and Water

- Mix 1/4 cup dish soap in a gallon of hot (not scalding) water.
- Scrub the metal surface with firm, circular strokes using a soft-bristled brush.
- Rinse this off thoroughly with hot water and then wipe it dry using a lint-free cloth.

Clean Off Hard Water

- Create a solution of equal parts white distilled vinegar and water.
- Rub the solution into the metal with a soft cloth or spray with a spray bottle.
- Dry with a cloth.

Neutralize Alkaline Deposits (Galvanized Steel)

- Mix one part baby powder with two parts milk.
- Use a toothbrush to apply this solution to the metal surface.
- Rinse off and dry thoroughly.



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COIL



The Coil bike rack is a popular design, with two different configurations for capacity. The 4 bike capacity provides parking for 2 bicycles on each side of the unit, while the 8 bike capacity provides parking for 4 bicycles on each side. Constructed from 2 3/8" zinc-plated and finished with polyester powder-coated paint, the Coil bike rack comes standard as a surface mounted unit with pre-drilled feet for easy ground mounting.



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COIL



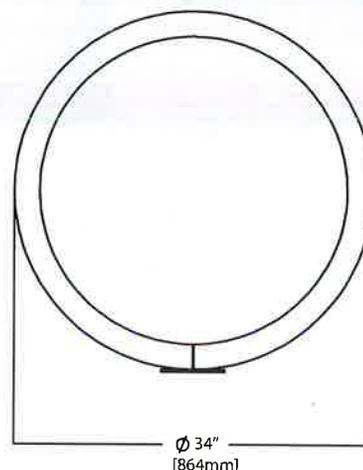
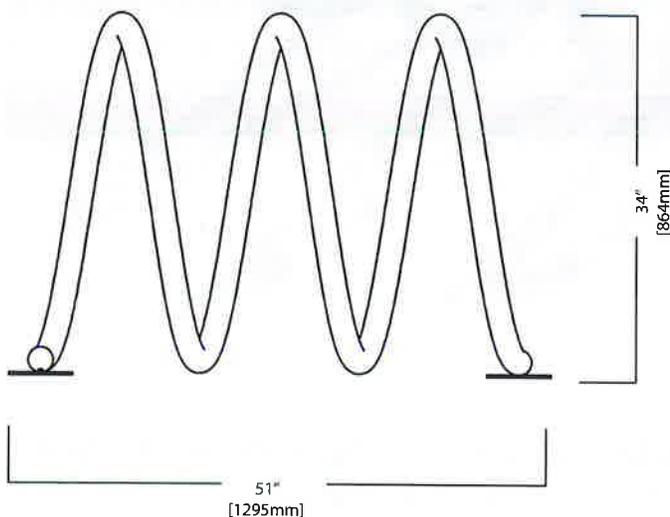
MATERIALS

- 2 3/8" Zinc Plated or Galvanized Steel

4 bike model shown here:

FEATURES

- Pre-Drilled for Surface Mounting
- Indoor/Outdoor Application
- Powdercoated Black or Natural Galvanized Finish
- Optional Paint Colours Available
- 2-sided Unit with Combined 6 Bike Capacity



4 Bikes

8 Bikes

Length	51"[1295mm]	85"[2160mm]
Depth	34"[864mm]	34"[864mm]
Height	34"[864mm]	34"[864mm]
Separating Distance	15"[381mm]	15"[381mm]
Weight	105lbs[42kg]	175bs[54.4kg]

TO SPECIFY

- 4 or 8 bike capacity
- Powdercoat Black or Natural Galvanized Finish
- Optional Paint Colour



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COIL

Installation

- For pre-drilled Bike Rack

Tools and Hardware Required:

- Hammer Drill
- Masonry Bit
- Expanding concrete/wedge anchor (stainless steel recommended) with locking nut

Instructions

- Drill ½" deeper than anchor will penetrate
 - Deeper anchor will offer better hold
- Drill hole in concrete equal to diameter of anchor
 - Depth of Wedge Anchor = Thickness of material fastened + Minimum embedment
 - Leave space for nut and washer
- Insert wedge anchor into concrete
 - Turn nut clockwise while pulling the anchor up
 - Wedge clip between anchor & concrete

Notes:

- Do not install anchor within 10 anchor diameters of other anchor, or within 5 anchor diameters of unsupported edge
- Base is pre-drilled for easy surface mounting (recommended)
- Can also be installed free-standing
- Install on even concrete surface



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COIL

Warranty

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Maintenance

Wash with Soap and Water

- Mix 1/4 cup dish soap in a gallon of hot (not scalding) water.
- Scrub the metal surface with firm, circular strokes using a soft-bristled brush.
- Rinse this off thoroughly with hot water and then wipe it dry using a lint-free cloth.

Clean Off Hard Water

- Create a solution of equal parts white distilled vinegar and water.
- Rub the solution into the metal with a soft cloth or spray with a spray bottle.
- Dry with a cloth.

Neutralize Alkaline Deposits (Galvanized Steel)

- Mix one part baby powder with two parts milk.
- Use a toothbrush to apply this solution to the metal surface.
- Rinse off and dry thoroughly.



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URBAN FLARE PLANTER



Fabricated from galvanized laser-cut steel, the Urban Flare Planter is a timeless design, seamlessly coordinating with other elements of the Urban Series product line, and other steel site furnishings with either a contemporary or a traditional feel. The powder-coated finish provides even more protection against chipping, abrasion, corrosion, scratching, and fading. The Urban Flare Planter includes a 18 gallon/60 Litre poly planting liner, pre-drilled legs with three anchor points for easy ground mounting, and can be specified in various colours upon request. A double planter version is also available increasing capacity to 36 gallons, or 120 Litres. Replacement/additional planting liners available upon request.

Double Planter Also Available



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URBAN FLARE PLANTER

Product Data Sheet



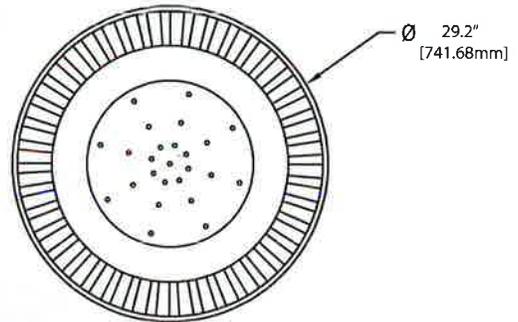
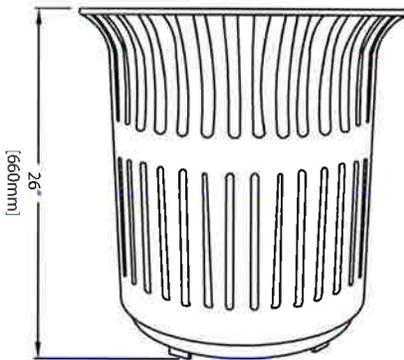
MATERIALS

- Electrostatically Zinc Plated Laser Cut Steel for Maximized Rust Protection
- Polyester Powdercoated Finish
- Stainless Steel Hardware

FINISHES

- Powder coated Textured Black Finish
- Pre-Drilled Feet (3 anchor points)
- Optional Nameplate and Paint Colours
- Includes 60L Capacity Liner(s)

Single Planter Shown Here:



	Single	Double
Diameter at Bottom	21.9"[556mm]	43"[1092mm]
Diameter at Top	29.2"[742mm]	55"[1397mm]
Height	26"[660mm]	26"[660mm]
Weight	92.5lbs[42kg]	182lbs[82.5kg]
Capacity	18 gal[60L]	36 gal[120L]

TO SPECIFY

- Single or Double Planter
- Optional Nameplate
- Optional Paint Colours



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URBAN FLARE PLANTER

Installation

- For pre-drilled Flower Planters

Tools and Hardware Required:

- Hammer Drill
- Masonry Bit
- Expanding concrete/wedge anchor (stainless steel recommended) with locking nut

Instructions:

- Drill ½" deeper than anchor will penetrate
 - Deeper anchor will offer better hold
- Drill hole in concrete equal to diameter of anchor
 - Depth of Wedge Anchor = Thickness of material fastened + Minimum embedment
 - Leave space for nut and washer
- Insert wedge anchor into concrete
 - Turn nut clockwise while pulling the anchor up
 - Wedge clip between anchor & concrete

Notes:

- Do not install anchor within 10 anchor diameters of other anchor, or within 5 anchor diameters of unsupported edge
- Base is pre-drilled for easy surface mounting (recommended)
- Can also be installed free-standing
- Install on even concrete surface



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URBAN FLARE PLANTER

Warranty

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Maintenance

Wash with Soap and Water

- Mix 1/4 cup dish soap in a gallon of hot (not scalding) water.
- Scrub the metal surface with firm, circular strokes using a soft-bristled brush.
- Rinse this off thoroughly with hot water and then wipe it dry using a lint-free cloth.

Clean Off Hard Water

- Create a solution of equal parts white distilled vinegar and water.
- Rub the solution into the metal with a soft cloth or spray with a spray bottle.
- Dry with a cloth.



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Fax: 905-282-1832

Finishing/Coating/Treatment

For Steel Benches, we treat the steel for maximum corrosion protection using either Zinc-Plating or Galvanizing. Steel can remain as a naturally galvanized finish, or can be further finished with Powder coated Paint.

For Powder Coating, we typically use Textured Glossy Black finishing for all our Steel Site Furniture. (Epoxy Thermoset Polymer Coating)

Some of the most important advantages of Powder Coating can be considered here:

- **Resistant:** Powder-coated paint is more resistant to impact, moisture, chemicals, and other extreme weather conditions. Items will look much better as they age.
- **Colour Integrity:** Powder-coated paint colours stay brighter longer. Harmful UV rays have little to no effect on its finish, retaining colour vibrancy for a much longer period of time.
- **Long-Lasting:** Powder-coated pain finishing has been proven to last longer than traditional paint on virtually any metal, making its application quite versatile.
- **Thick:** On the average, powder-coated paint is twice as thick as standard paint – providing greater resistance to vibration, and ability to bend to its material.
- **Durable:** Powder-coated painting reduces the risk of scratches, chipping, abrasion, corrosion, fading, and other wear issues resulting in a longer product lifespan.
- **Textured Glossy Finish:** This particular finish is perfect for hiding imperfections in the metal.

Is Powder Coating Environmentally Friendly?

Absolutely. Powder Coating has a reduced impact on the environment when compared to most traditional paints:

- **No Solvents:** No solvents are used in the powder-coating process, it's also a solid product making the application safer when done correctly.
- **No VOCs:** Powder Coated painting emits zero or near zero harmful Volatile Organic Compounds (chemicals with a low boiling point that are more prone to enter the air).
- **No Finishers:** Harmful finishers are not required in the powder-coating process, unlike traditional paints, resulting in a cleaner and safer environment with less chemicals in the water table.

Sincerely,

Classic Displays



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Fax: 905-282-1832

Materials

- For all flat steel components, we use 3/16" (7 Gauge) Steel.
- Steel components are laser cut and welded or fastened
- All fasteners are Stainless Steel. Visible/Accessible fasteners use tamper-proof Stainless Steel hardware

Recycled Steel & Aluminum

Classic Displays only uses premium steel and aluminum components. Steel is fully recyclable at the end of its life cycle, and a substantial portion of our steel and aluminum elements also contain previously recycled materials, resulting in a greatly reduced environmental burden.

Sincerely,

Classic Displays



**5959 Ambler Drive
Mississauga, ON
L4W 2K2**

**Tel: 905-282-8888
Fax: 905-282-1832**

Lead Time

-Typical lead time is approximately 6-7 weeks from confirmation of order.

-Longer/Shorter leads times will be advised depending on the product, quantity, and timing of the order. Custom orders will see increased lead times.

-We use local fabricators, and it is possible for increased lead times to labour shortages since the spring of 2020.

-We attempt to expedite every order as quick as possible, without compromising our quality control.

-We use local and Canadian carriers to deliver our products safely to our customers, such as Day & Ross. Smaller orders are shipped by courier when possible.

-We keep our customers informed so they can plan accordingly when their products will be delivered.

Sincerely,

Classic Displays

Classic Displays Commitment to Sustainability

Sustainability is a long-term commitment that requires a long-term approach. At Classic Displays, we are constantly seeking and evaluating new materials, processes, and infrastructure to ensure we stay at the cutting edge of sustainability. Our products and components are designed and manufactured for longevity, mirroring our deep-rooted commitment of over 40 years in contributing to a sustainable environment.

Recycled Plastic Lumber

Classic Displays conscientiously promotes the use of our 100% recycled plastic lumber as the primary material for our benches, picnic tables, planters, including many waste & recycling units. With a 25 year warranty against splitting, cracking, rotting, and warping, our recycled plastic lumber is engineered to greatly exceed the lifespan of composite materials and traditional wood products while remaining fully recyclable at the end of its lifespan.

Recycled Steel & Aluminum

Classic Displays only uses premium steel and aluminum components. Steel is fully recyclable at the end of its life cycle, and a substantial portion of our steel elements contain previously recycled materials. We use energy efficient "Secondary" aluminum comprised of 95% recycled material, of which 57% is post-consumer, and 38% is post-industrial recycled material.

Recycled Material in Waste Containers & Liners

Many of our waste & recycling containers and liners are manufactured through a process called rotational molding, where plastic is "baked" into a mold. The result is a durable, long-lasting, impact-resistant, and environmentally friendly product, generating minimal waste during manufacturing. Our black rotationally molded plastic bins and liners are made from 100% recycled regrind plastic, with all colours fully recyclable at the end of their life cycle.

Paints and Finishes

Non-Galvanized metal components are zinc-plated and finished with TGIC-free and UV resistant powder coated paint. Powder coated components are more resistant, lasting longer and creating less material waste. The environmental benefits of the powder coating process itself uses no solvents, finishes, or VOC's, resulting in reduced environmental impact, with less chemicals entering the water table.

Holiday Displays and Lighting

As both a producer and direct importer of holiday display products from a very select group of manufacturers, Classic Displays has complete control over the quality products we offer. Quality fabricated products have superior longevity and produce much less waste. Wherever possible, Classic Displays recycles previously enjoyed holiday display products, including lighting components. We routinely donate used string lighting and bulbs, and recycle all metal ingredients.

Shipping & Packaging

Whenever possible, Classic Displays uses recycled skids, safely reusing shipping materials such as bubble wrap, plastic, and cardboard. We also strive to consolidate loads while maximizing load capacity to improve efficiency. Classic Displays routinely ships many products unassembled, decreasing shipping costs while minimizing the environmental impact of the shipping process.

Optimized Maintenance Programs

Classic Displays owns its own fleet of vehicles, including two hydraulic lift vehicles, two half-ton utility trucks, and one 20' straight truck. To minimize our carbon footprint, we rent additional vehicles during our busy installation season. Our year-round maintenance programs are carefully coordinated ensuring deliveries, installations, and maintenance calls are geographically optimized to reduce travel distances whenever possible, resulting in reduced vehicular emissions.

Corporate Recycling Program

Classic Displays recycles all office and warehouse products including packaging, paper, plastics, glass, printer cartridges, and electronic waste.

Location Advantages

Classic Displays' office, showroom, warehouse, storage facility, and production divisions are all located under one roof eliminating the requirement of travelling between multiple locations. With many of our suppliers nearby, our facility is centrally located in an expansive industrial area within a 2km driving distance of Highway 401, Canada's busiest highway. Our centralized location and consolidated facility greatly reduces our carbon footprint.



G.1 Sample Wayfinding Boards



Example of a Trailer Park welcome sign with wayfinding elements such as a "You Are Here" label, numbered trailer lots, street names, and building names



Example of internal wayfinding signage, orienting residents within the park

Sarah O'Connell

From: Jane Pyle
Sent: Monday, April 22, 2024 10:05 AM
To: Sarah O'Connell
Subject: FW: [Council Report Writers Workgroup - Draft Council Reports] Approval has completed on [PR2024-004 Centennial Trailer Park_Master Plan.docx]

DEV
2004-46

Hi Sarah – this one is approved. Thanks.

Jane Pyle, A.M.C.T. (she/her)
Executive Assistant to the CAO
Office of the Chief Administrative Officer
City of Kawartha Lakes
(705) 324-9411, ext. 1264
www.kawarthalakes.ca



From: Power Automate Admin 365 <PAdmin365@kawarthalakes.ca>
Sent: Monday, April 22, 2024 9:41 AM
To: Jenn Johnson <jjohnson@kawarthalakes.ca>
Cc: Jane Pyle <jpyle@kawarthalakes.ca>
Subject: [Council Report Writers Workgroup - Draft Council Reports] Approval has completed on [PR2024-004 Centennial Trailer Park_Master Plan.docx]

Approval has completed on [[PR2024-004 Centennial Trailer Park_Master Plan.docx](#)].

Approval on [[PR2024-004 Centennial Trailer Park_Master Plan.docx](#)] has successfully completed. All participants have completed their tasks.

- * Stage 1 approved by Ron Taylor (rtaylor@city.kawarthalakes.on.ca) on 04/22/2024 9:41 AM Comment:
- * Stage 1 approved by Craig Shanks (cshanks@city.kawarthalakes.on.ca) on 04/22/2024 8:21 AM Comment:
Hi, I have approved but have 1 question (more for clarification). There is a \$9.7 M investment recommended over the next 20 years. Is this something we want to support - is a Trailer Park still a sustainable business/model? Shoud we state than in big picture that is \$485,000/year. Can/do we support this investment? And it is saying the increased revenues will be \$325,000 over the course of the 20 years. Am i understanding correctly that the \$9.7M will only equate to an additional \$325,000?
- * Approval started by Jenn Johnson (jjohnson@city.kawarthalakes.on.ca) on 04/19/2024 10:20 AM Comment:
Please let me know if you have any questions or concerns. Thanks.

[View the workflow history.](#)