

**City of Thunder Bay Marina Advisory Committee (MAC)**  
**Input to Parking Authority Report to Council:**

**- UPDATED – March 3, 2017-**

**INTRODUCTION**

Since the recommendations presented below are intended to address a parking system in a multiuse facility, there is interconnectedness among them. We have attempted to identify the areas of overlap and the significance thereof. The recommendations are presented in no particular order of importance.

**BACKGROUND**

**Marina Parking Surveys**

Recently, 2 surveys of marina parking in Ontario were conducted: one by City staff; the second by MAC. The details can be found in Appendix A (see page 11). In summary, the main findings of the surveys are:

- Of the 25 marinas identified in the survey, 2 had parking fees over and above docking fees.
- 4 of those marinas issue marina parking passes.
- Most of the marinas have municipal parking lots situated adjacent to slip areas.
- Most of the marinas are without designated parking spots for boaters.
- Most municipal marinas operate on a “first-come, first-served” basis.
- Thunder Bay is somewhat unique in 2 ways: the marina is located at the heart of a municipal park; and, the marina configuration makes use of some parking on the piers.

**Parking Standards**

A review of the literature reveals that there are no universal rules for parking at marinas (*Ross*). The ratio of parking spaces to boats are affected by a number of variables including size of boats, dryland versus wet storage, slip location, season, amenities associated with marina, activities enjoyed in the area, etc. While estimates can range from 3 spaces/boat for commercial operations to 0.2 spaces for dryland, there are “best judgement estimates” or guidelines generally accepted by industry professionals (*Stone; Lloyd*). These are:

0.6 spaces per wet slip  
0.2 spaces per dryland storage bay  
0.2 spaces per swing mooring

A review of Prince Arthur’s Landing parking by the BA Group suggested that a ratio of 0.7 parking spaces/slip on busy weekends and 0.5 spaces/slip on weekdays would be appropriate to meet parking demands during the summer season (*Lloyd*). This is within the range of “best judgement estimates” noted above although due consideration needs to be given to the uniqueness of the PAL situation. As it currently stands (see Appendix B, page 12), the PAL marina parking ratios are:

**Pier 1: 0.43; Pier 2: 0.0; Pier 3: 0.25; Marina Overall: 0.33**

The report also points out that when site specific amendments to the former City of Thunder Bay Zoning By-Law were approved by City Council in 2008 and 2009 they included parking standards for residential, hotel, conference facility, restaurant, retail, office, Water Garden, art studio/gallery and general public use but they did “not include a minimum requirement for marina activities” (*Lloyd*). This oversight occurred even though marina users were the largest, pre-established stakeholder group in the area prior to development occurring in Marina Park. This changes the context of parking needs analysis and,

without consideration of accepted guidelines, skews the assessment of marina parking needs when attempting to find a balanced solution to Marina Park parking needs for all users. The BA Group report states “it is likely that the new Zoning By-law standards overstate demands relative to commercial uses on the property but, at the same time, understates those related to the recreational and waterfront uses given that there is no marina parking standard within the Zoning By-Law.” It goes on to say “it is likely that Zoning By-Law parking requirements understate parking requirements of the Prince Arthur’s Landing [PAL] redevelopment plan as a result.” (Lloyd)

The significance of the above for marina parking is revealed when a comparison is made between the BA Group’s proposed 123+/- parking spaces on the piers to the current number on the piers, 95. In effect, the parking standards have led to an understating of parking demands for PAL, and the marina in particular, and the parking supply currently available for adequately addressing those understated marina demands is 23% less than the BA Group’s proposed solution. It is not difficult to see why, at times, there can be demand and supply issues within PAL although this is not normally the case.

## **RECOMMENDATIONS**

### **Pier Parking**

MAC recommends:

- that there be no plans for paid parking on the piers;
- that only those with boater parking passes obtained with a boater docking or storage contract be permitted to park in the designated boater parking spaces on the piers;
- that, as previously suggested to marina management, those with “crew passes” and those with a “duplicate parking passes” on Pier 3, along with vehicles without any of type of parking passes not be permitted to park on the piers; instead these passes should permit vehicles to park in what has been normally referred to as the “Boater Service lot” with no additional charge on a first-come, first-serve basis;
- that, as previously suggested to marina management, 2 passes/slip should be allotted to contract holders on Piers 1 and 2;
- that this approach to the use of crew and duplicate passes be implemented on a trial basis for 2017.

### **Rationale:**

- ✓ The Marina Advisory Committee (MAC) agrees with and supports the position put forward by the Parking Authority representatives at the December 14, 2016 MAC meeting that there are no plans for paid parking on the piers.
- ✓ The results of the sample of marinas surveyed (Appendix A., pg. 11) suggests that the vast majority of Ontario municipal marinas do not have additional charges for parking for marina contract holders.
- ✓ The reason the approach to the use of the alternate or second parking passes is only being suggested for Pier 3 is that the parking congestion on Pier 3 (adjacent to the Bight Restaurant and Mariner’s Hall) is much more severe than is currently being experienced on the other piers.
- ✓ MAC is suggesting that this approach be monitored in 2017 and an assessment of its effectiveness be made at the end of the season. With the loss of some of the temporary parking that has been available at the foot of Pier 2 to a construction laydown area, an analysis of actual

parking data for 2017 may identify new demands on Pier 1 parking. However, until we have actual as opposed to anecdotal parking data, MAC is reluctant to recommend a blanket solution to areas which may not be experiencing the same congestion problems.

### **Pier Overflow Parking**

MAC recommends:

- that on those occasions where parking spaces on the piers are fully occupied, vehicles with boater parking passes be permitted to park without charge in public parking areas in Marina Park. For example, when parking on Pier 3 is full, parking pass holders should be permitted to park in the parking lot to the north of the pier. This recommendation would include parking in those lots available on weekends and for “special” Marina Park events;
- that this approach also be implemented on a trial basis for 2017.

### **Rationale:**

- ✓ Marina surveys indicate that “first-come” parking in public lots is the norm as a solution for marina parking.
- ✓ There is little doubt that Pier 3 needs additional parking; it is at the hub of activity in Marina Park with recreational boating, commercial boating, a restaurant, a splash pad, Mariner’s Hall, a skateboard park and an art gallery all located within close proximity to the foot of Pier 3. This problem will be further exacerbated when the proposed market square and hotel comes on-line, the condominiums are at full capacity, the permanent loss of temporary parking in the gravelled parking lot at the base of Pier 2 (save for 7 spaces approved in the original plans for the area) and the influx of more people using the market square. It is therefore reasonable to foresee that boaters with seasonal contracts may arrive to find the pier boater lot(s) full and may need to park in either the North lot or the Boater Service lot instead.

The reality is that both the programming and facility areas of the park, coupled with the growth of boating interest and activity at the waterfront, have become victims of their own successes, particularly in the area of Pier 3. This has resulted in an increased demand for access and parking in an area of the park where it is most difficult to provide.

- ✓ MAC recommends these parking recommendations also be implemented on a trial basis for 2017 in order to ascertain, from actual parking data, how these parking solutions will affect parking availability in other lots, in particular the lot to the north of Pier 3. The frequency and amount of overflow parking during normal hours of parking restrictions, to the best of our knowledge, has not been accurately documented. Thus, there is no reliable data, other than anecdotal, on the impact of allowing overflow parking on the piers to park in other areas. If we do not know the impact with any accuracy or reliability, trying this approach to alleviating congestion at the base of Pier 3 and documenting the results will provide more reliable solutions to the long-term parking scenario at Marina Park.

### **Free Parking along the Railway and Pool 6**

MAC has been led to believe by City Administration that, in the future, there will be free parking in the area of the pumping station (adjacent to railway) and in the vicinity of the former Pool 6 facility. Given this, MAC recommends:

- that the free parking adjacent to the pump house would provide a reasonable solution to boater “guest” parking; the viability of this solution would depend on temporary access to the piers to load and unload gear and supplies;
- that the free parking adjacent to Pool 6 not be considered as a reasonable solution for boater parking within the current configuration of the marina. However, this may provide a reasonable boater parking resource should reconfiguration proceed, for example in Tug Boat Basin.

Rationale:

- ✓ Free parking along the railway adjacent to the pumping station would be suitable for marina user “guests” in that the distance from the pump house to the Marina Services building is approximately .3 km to “C” dock on Pier 1; approximately .5 km to the foot of Pier 2; and .7 km and to Pier 3. The convenience envelope is pushed for boaters on Piers 2 and 3 with this option and it is somewhat inconvenient for those on Pier 1. However, if guests are allowed to drop off gear on the piers this parking solution may provide at least a temporary workable approach to boater “guest” parking.
- ✓ This parking location would also seem to be a reasonable solution for members of the public interested in walking/sightseeing in the area of the marina or crewing boats using the launch ramps.
- ✓ However, the distance from parking in the Pool 6 area would not seem to be workable for boaters. From the Pool 6 area to “C” dock on Pier 1 is approximately .75km; to the foot of Pier 2 it is 1 km; to Pier 3 it is 1.2 km. These distances are too far to walk with gear or at night time which makes the Pool 6 area not viable as a practical solution for most boater parking requirements. Perhaps with some reconfiguration of the marina in the future (i.e. the development of Tugboat Basin) this option would be possible.

**Enforcement**

Simply put, parking by-laws and marina rules need to be enforced or they will not have any impact on addressing the parking issues at Marina Park. Last year, to a large extent (with perhaps the exception of the Pier 3 parking area at times), the by-laws and rules were not being consistently enforced and both the public and marina users were well aware that such was the case. The result was little to no control over the parking situation in the marina area and people openly flaunted the rules to the frustration of many.

If the rules and by-laws are enforced most people will abide by them; if they are unattended to, parking control initiatives will become even more fruitless than what was experienced last season. Therefore, MAC recommends:

- strongly, that the parking by-laws and regulations for Prince Arthur’s Landing be rigorously enforced for the 2017 season and beyond;
- that, in particular for Wednesday nights, the evening of peak demand in both the park and the marina, there should be 2 security people restricting parking access, one at the entrance to the turning circle from Pearl St. and a second at the exit from the turning circle to the piers. Those with crew passes or duplicate Pier 3 passes should be permitted to park in the Boater service lot; those without any passes should not be allowed to park in either place;
- that this approach be monitored closely in 2017 and if it is discovered that the Boater Service lot is not fully occupied, it be opened up to the public on a first-come, first-served basis;

- that the current security services be reviewed with the purpose of bringing about more consistent enforcement;
- that revenues generated from the “security services” enforcement of the marina parking rules go into the marina budget as an additional source of marina funding to assist with the upkeep of the marina infrastructure.

Rationale:

- ✓ Pier parking needs to be enforced more consistently. In 2016, parking without passes on the piers was not enforced effectively with the predictable outcomes. Nor was there enforcement in the Boaters Service lot, although construction in the area was a mitigating factor. Nonetheless, the result was that vehicles were often parked in a helter-skelter manner, thus limiting the number of available spaces. This also resulted in day-use boaters coming to the marina to launch being unable to do so since adequate vehicle/trailer parking was unavailable. In effect, an important part of the marina intended for use by non-contract holders was not available to an important segment of the boating community.
- ✓ MAC recognizes that within the existing parking by-laws there are some limitations regarding who can issue parking tickets and where they can do so. Nonetheless, these limits result in inconsistencies in the application of parking by-laws and marina park regulations and for that reason MAC suggests that enforcement be reviewed in the interest of eliminating these inconsistencies.

**Long-term Parking (24 to 48hrs or beyond) and Parking Security**

Currently, there is no rule or policy in the *Terms and Conditions* of the City of Thunder Bay Docking Agreement specifying long-term parking regulations. There is a statement in the covering letter of the *Boater Docking Package* sent to contract holders in 2016 regarding long-term parking. The letter states that “if you [a boater] plan to be out on the water for more than 48 hours, you are required to move your vehicle to the Boater Service lot before leaving”.

MAC recommends:

- that this requirement be placed in the Terms and Conditions of the rental agreement and that it be enforced. The designated lot for long-term parking is the Boater Service lot;
- that long-term parking in the designated lot be covered by the Boater Parking pass, (i.e. no additional parking charge be levied for boater long-term parking in the designated lot);
- that an area for long-term parking for those using boat launch ramps be established; Accommodating long-term parking for large vehicles with trailers in the Boater Service lot would eat up a significant amount of space in this lot for extended periods of time;
- that reliable security for long-term parking be put in place.

Rationale:

- ✓ Notifying the marina office of an absence from the marina for more than 48 hours is already included in the covering letter to the *Terms and Conditions* of marina user contracts but that is to expedite slip rental for transient boaters, not specifically to manage or control parking. Enforcing this requirement will “free up” parking space in the high-demand areas of the piers.
- ✓ The major concern of boaters with long-term parking, however, is security of their vehicles in long-term parking areas. Currently, many feel that their vehicle is safer left on the piers rather

than in the Boater Service lot even though this lot is closer to the Marina Services building and overnight security services.

### **Boat Launch Parking**

It is important to keep in mind that the Prince Arthur's Landing Marina is a facility that provides services not only to seasonal contract holders and transient boaters, but it was also designed and intended for day use by the general boating community of Thunder Bay.

Given this, MAC recommends:

- that adequate and appropriate parking spaces for vehicle-with-trailer parking be provided within reasonable proximity to the launch ramps, preferably in the Boater Service lot;
- that the layout of the Boater Service lot be reviewed and reconfigured to ensure that ample space be available for boaters to launch in a safe and efficient manner;
- that day-users should be charged for parking in the designated launch parking spaces;
- that day-user parking fees should include the fee for use of the launch ramps.

### **Rationale:**

- ✓ There must be designated boat launch spots (for vehicle + trailer) so that the launch facility is available for its intended use. It should be noted that this type of parking requires a design/layout that will accommodate larger vehicles (trucks, recreational vehicles and large SUV's along with their trailers typically owned by this group of marina users); parking stalls designed to handle small to mid-sized vehicles will be inadequate in this application.
- ✓ Members of the public using the ramps tend to be day-users who come to the marina to launch their boats for short evening excursions, early morning fishing trips, mid-day getaways, etc. and without designated areas to park their vehicles and trailers they are denied access to this facility. Without designated parking spaces, as was witnessed last season, there simply isn't room for these users to park. Further, and just as importantly, without adequate control of the Boaters' service lot, in particular with regards to where and how people park, these users are denied access the launch facilities. They require adequate room to manoeuvre their vehicles and trailers into the launch ramp. Last season, on a number of occasions this was an impossible task given how people were allowed to park in the Boater Service lot. Quite simply, if these requirements are not met an important part of the marina becomes non-functional and a significant number of community members are denied service.
- ✓ Having day-users who utilize the launch ramps pay a parking fee which also covers the boat launch fee would provide an effective, reliable and consistent method for collecting launch fees. Currently, launch fees are not being paid by all launch-ramp users. This results in an unfair system of the application of user fees. It also represents a loss of revenue which could be used to help maintain the facility.

### **Additional Pier Parking**

A couple of points have come up in MAC's conversations about marina parking:

- As noted earlier, the success of Marina Park has generated an ever increasing demand for parking; we are the victims of a success story.
- A consideration that needs to be taken into account is the frequently cited observation by park planners that "we don't think vehicles should have a better view of the waterfront than people."
- We are dealing with a limited resource at Marina Park, that is, available land. Except for where land reclamation has occurred to facilitate condo and hotel development, we are limited with a

precisely-defined, scarce resource. There simply is a shortage of available space to provide all things to all park and marina users.

Given the above, MAC recognizes that in order to find workable solutions to the parking dilemma at Marina Park there is a need to find a balance among a number of variables: these include but are not limited to fair and reasonable access to parking for all users; the unique parking requirements of different user groups; park/marina aesthetics; costs; offsetting revenues; traffic flow, both pedestrian and vehicular; season fluctuations in demand; and, park and marina activities which, not infrequently, compete for available space and facilities.

With the above in mind, MAC recommends:

- that a reconfiguration of Pier 1 parking be considered. It would involve removing the 11 or so “bump-outs” in the lot. This will create up to an additional 13 spaces on Pier 1 or an increase of approximately 18% in available parking on the pier.

Rationale:

- ✓ No doubt the first concern here will be for Pier aesthetics; the intent of the “bump-outs” is, most likely, to mitigate expanses of pavement through landscaping. However, no such “bump-outs” appear to be in use in recently developed parking lots at PAL. The pictures below reveal that new parking spaces being constructed in the vicinity of the pumping station have no such “bump-outs”. Mitigation of the vast open spaces here will no doubt come through the use of landscaping on the perimeter of the lots.



*Above, new parking lots currently being developed in the area west of the Boater Service lot and north of the pumping station. Curbing is in place along the eastern perimeter of the lot.*

*Below, another view of new parking facilities in the area west of the Boater Service lot, north of the pumping station and adjacent to the rail lines.*



- ✓ Perimeter landscaping already exists on Pier 1, save for some trees that have been taken out by the resident beaver population. Trees removed from the “bump-outs” could be replanted along the pier banks to increase the tree canopy for parked vehicles thus reducing, more effectively, the heat effect on vehicles parked in the area.



*Above, view of Pier 1 parking facilities with 11 “bump-outs” jutting into the lot.*

- ✓ There is no doubt that removal of the “bump-outs” on Pier will have an impact on the visual aesthetics. However, elimination of grassy areas on the “bump-outs” will assist with improving



the park aesthetics by helping as a deterrent for geese. The geese problem at Marina Park presents a different type of threat to marina aesthetics. The average adult goose eats approximately 3 lbs. of grass per day (or 5 sq. ft. of turf each day); the average adult goose leaves behind approximately 1-3 lbs. of excrement each day (*Long Island Geese Control*). The visual and tactile effect of these 2 facts makes Pier 1 a rather messy and unattractive place to walk on.

Also, geese return to the general area of their birth each year to mate and nest. Molting season runs from early June to late July. During the molt, geese need to be near water sources for easy escape from predators but the molting area also needs an easily accessible food supply (*Long Island Geese Control*). The piers readily provide this easy access to the land and food. While removing some of that food supply close to the shoreline, that is in the grass-covered “bump-outs” on Pier 1, will not completely resolve the problem geese create for the marina environment, it will at least offer a partial solution in making the pier a less attractive place for the geese to find food. To be sure, other measures need to be taken to assist in finding a workable solution to the negative impact geese are having on marina and park aesthetics.

On balance, considering the dual impacts on aesthetics, as discussed above, along with the benefit of increasing a scarce resource, a strong case can be made in support of creating additional parking space on Pier 1.

- ✓ There is precedent for making changes to park layout and configuration of roadways and parking lots so what is being proposed is not “out of the norm
- ✓ The creation of up to 13 additional parking spaces on Pier 1 would also have a positive effect on parking ratios. For Pier 1 the parking ratio would improve to 0.51 and for the marina as a whole to 0.37. The Pier 1 ratio moves closer to the BA Group’s assessment and closer to the “best judgement estimates” generally accepted by the professionals as mentioned earlier. The marina overall number improves but still remains well below the professional recommendations.

With respect to Pier 1, however, there is a caveat. The temporary boater parking for Pier 2 in the gravel lot at the foot of the pier will be lost to Pier 2 boaters, in part, in 2017 as some of it will be used for a laydown area for hotel construction and in full, save for 7 spaces as discussed earlier, when the market square area is developed.

This means Pier 2 boater parking will be displaced and the most logical solution for Pier 2 boaters is to make use of available parking on Pier 1. If that is the case, without the addition of spaces on Pier 1 and with the influx of Pier 2 vehicles the parking ratio for Pier 1 drops to 0.37, well below recognized guidelines. With the addition of up to 13 parking spaces on Pier 1 and the influx of Pier 2 boater parking on it, the Pier 1 ratio would remain at its current level of 0.43.

### **Parking Control Technology (Meters or Pay-Display)**

MAC recognizes that it is not within its mandate or expertise to provide guidance with respect to parking control technology. That being said, MAC does recommend:

- that wherever paid parking is introduced the technology that is employed must be able to accommodate ½ to full day parking for those going out on the lake;

- that there should be reasonable mechanisms in place to accommodate parking overages without unreasonable penalties;
- that some form of “pay and display” technology be used for day-use boaters who use the launch ramps.

***Rationale:***

- ✓ On occasion, boaters can be delayed from returning to the marina at scheduled times because of severe weather or equipment failure. In these cases, most boaters will take measures to ensure their safety and that could mean delays in returning to the marina. Worrying about a parking control device should be the last thing on their mind. It seems reasonable that some mechanism to deal fairly with parking charges in situations such as this be put in place. For example, technology exists which allows people to add time to their parking via the use of a cellular phone app which would be convenient for those on the water who are unable to return in time before the “meter runs out”. The City of White Rock, British Columbia employs such a system at its waterfront.
- ✓ While people often go on short, evening excursions, much of the boating activity, both power and sail, occurring during the day is frequently for extended periods of time, half to full days. For this reason, time-based parking control devices (i.e. metered hours) that allow for parking in limited time frames will not be appropriate to support boating activities out of the marina.
- ✓ “Pay and display” technology for those launching boats for the day at the marina serves two purposes: one, it will ensure the provision of appropriate available space for this marina user group; second, it will provide a more reliable and fair way of collecting launch fees. Currently, launch fees are not being collected in a reliable and consistent manner. This reduces marina revenues that can be reinvested back into the maintenance and renewal of marina infrastructure. While these fees, in the past, have not represented a substantial contribution to marina revenues, they represent a reasonable amount of potential income to help with the maintenance of the launch facilities.

**Parking Studies**

MAC suggests that a reasonable “roadmap” for managing parking at PAL is presented in the BA Group *Prince Arthur’s Landing Parking Management Strategy, May 2011*. It recognizes issues in forecasting parking requirements, presents data-based proposals for a balanced approach to meeting parking needs for multiple stakeholders at PAL and suggests flexibility in providing solutions. Therefore, MAC recommends:

- that the City implement the BA Group’s proposal for the City to establish a working group/task force comprising of City staff and key stakeholders to meet regularly to develop and refine flexible parking plans; to coordinate the collection of parking data required for effective decision making; to facilitate the sharing of parking information to PAL users and the general public; and to review and assess the effectiveness of plans in meeting PAL user needs.

***Rationale***

- ✓ The BA Group’s conclusion that a key to managing parking demands at PAL, and therefore the marina, is to do so on a pro-active basis is supported by MAC. In fact, their collaborative and pro-active approach is something MAC has been suggesting for a while. A pro-active approach

that explores flexible, data-based solutions to the parking needs at PAL will lead to the greatest efficiency in making use of the well-defined but limited resource available for parking at PAL.

- ✓ A working group/task force of key stakeholders and City staff will ensure that the parking needs of different, sometimes competing, user groups will be well represented in the development of practical and viable solutions to parking management within the park.

Appendix A:

**ONTARIO MARINAS PARKING SURVEY, 2017**

MARINA	COMMUNITY	SURVEY BY		PARKING	Additional Info.
		CITY	MAC		
Port Whitby Marina	Whitby	X	X	Free – City lot	1 <sup>st</sup> -come basis
North Bay Marina	North Bay	X	X	Free – City Lot	1 <sup>st</sup> -come basis
Cobourg Marina	Cobourg	X	X	Free – City lot	1 pass; no designated spots
Bronte Marina	Bronte	X	X	Free – City Lot	1 <sup>st</sup> -come basis
Leamington Marina	Leamington	X	X	Free – City Lot	1 <sup>st</sup> -come basis
Minnehaha Marina	Sturgeon Falls	X	X	Free – City Lot	1 <sup>st</sup> -come basis; + paid secure lot
Lakeview Park Marina	Windsor	X		Free – City Lot	2 passes; no
Big Sound Marina	Perry Sound	X		Free – City Lot	1 pass (\$3 credit if not required)
Barrie Marina	Barrie	X		\$100/season	1 pass; no designated spots – City lot
Gananoque Marina	Gananoque	X	X	\$180/season	– City lot
West Nipissing Marina	Nipissing		X	Free – City lot	Can pay a fee in secured lot
Harbour Light Bayfield	Bayfield		X	Free (3 marinas) – 2 City lots	1 <sup>st</sup> -come basis
Blue Mountain Marina	Thornbury		X	Free – City lot	1 <sup>st</sup> -come basis
Spanish Marina	Spanish		X	Free – City lot	1 <sup>st</sup> -come basis
Bronte Harbour Marina	Bronte		X	Free – City lot	On Site Parking at marina
Penetanguishene Marina	Penetanguishene		X	Free – City lot	1 <sup>st</sup> -come basis
Sault Ste. Marie Marinas	Sault Ste. Marie		X	Free - (2 City lots)	1 <sup>st</sup> -come basis
Richard’s Landing	St Joseph Island		X	Free – City lot	1 <sup>st</sup> -come basis
Lakefront Promenade	Mississauga		X	Free – City lot	1 <sup>st</sup> -come basis
Red Rock Marina	Red Rock		X	Free – City lot	1 <sup>st</sup> -come basis
Nipigon Marina	Nipigon		X	Free – City lot	1 <sup>st</sup> -come basis
Collins Bay Marina	Collins Bay		X	Free – private	

Summary:

Marinas included in survey .....25  
 Number of marinas who charge for marina parking.....2  
 Number marinas who issue marina parking passes.....4  
 Most marinas have city parking lots situated in front of slip areas, without designated spots for boaters (similar to Thunder Bay’s Boater Service lot).  
 Most municipalities are using a “first-come” basis for parking in city lots.  
 Thunder Bay is unique in having piers to drive onto.

Appendix B:

**PARKING RATIOS**

<u>Pier 1</u>		<u>Pier 2</u>	
Parking Spaces	73	Parking Spaces	0
Slips	145	Slips	<u>30</u>
Dryland	<u>23</u>	Total Boats	30
Total Boats	168		
Space to Boat Ratio	<b>0.43</b>	Space to Boat Ratio	<b>0.00</b>
<u>Pier 3</u>		<u>Overall</u>	
Parking Spaces	22	Parking Spaces	95
Slips	81	Slips, Dryland, Moorings	<u>287</u>
Moorings	<u>8</u>	Total Boats	287
Total Boats	89	Space to Boat Ratio	<b>0.33</b>
Space to Boat Ratio	<b>0.25</b>		

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Appendix C:

**Resources and References**

Brook McIlroy Inc. (Planning Consultants): *Report No. R70/2015 (Development & Emergency Services)-Waterfront Master Plan Update: Appendix A – Pool 6/Tug Boat Basin*, September, 2015.

Moffatt & Nichol (Marine and Coastal Engineers): *Report No. R70/2015 (Development & Emergency Services)-Waterfront Master Plan Update: Appendix B – Marina Study*, September, 2015.

Morrow, Lou, Corporate Project Manager: *Memorandum: Report No. R70/2015 (Development & Emergency Services)-Waterfront Master Plan Update*, September 21, 2015.

Lloyd, Alun, BA Group Transportation Consultants: *Prince Arthur's Landing Parking Management Study*, May, 2011 (*City of Thunder Bay Marina Report No. 2011.075 – PAL Parking Study*).

Ross, Neil W., *"Auto Parking in Marinas"*, International Marine Institute, 1989.

Stone, Ron: *"Where There are Boats There Must be Cars—But How Many?"*, Marina Dock Age, September/October, 2009.

\_\_\_\_\_*Canada Geese Damage Management, Control Techniques*, Internet Center for Wildlife Damage Management, February, 2017.

\_\_\_\_\_ *Geese Facts: Long Island Geese Control*, February, 2017.

\_\_\_\_\_ New York State Department of Environmental Conservation Division of Fish, Wildlife and Marine Resources and U.S. Department of Agriculture Animal and Plant Health Inspection Service, *When Geese Become a Problem*, May, 2007.

\_\_\_\_\_ Lake George Park Commission, Lake George NY, *A Compilation of Generally Accepted Standards for Marina Parking*, January, 2015.

\_\_\_\_\_ City of Thunder Bay Marina Advisory Committee Minutes, January, 2013 through December, 2016.