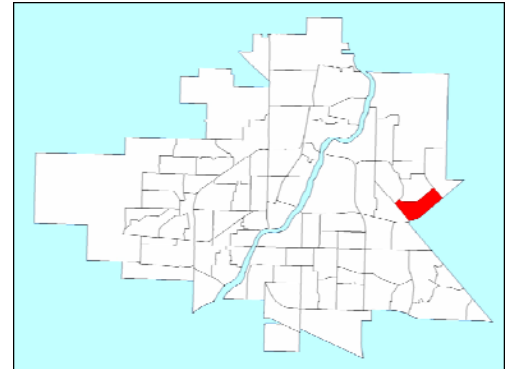


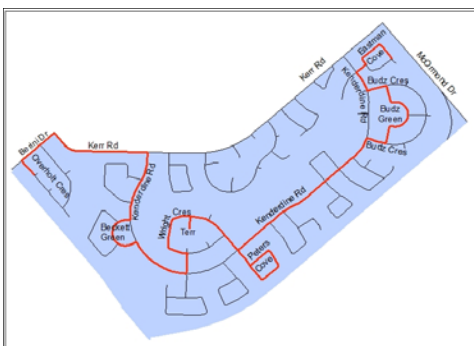
Arbor Creek



The **Smart Cities, Healthy Kids** research project looks for solutions to childhood obesity by investigating how neighbourhood design affects children's ability to be physically active. Research suggests that safety from traffic and crime, the presence of destinations and built features supporting an active lifestyle (eg. parks, playgrounds, and bike lanes), a neighbourhood's attractiveness, and its accessibility are all very important in determining whether people will be active there. To determine which Saskatoon neighbourhood designs are the most supportive of active living, researchers walked each neighbourhood in Saskatoon in the summer months of 2009/2010, collecting data on these areas using two research surveys: the Neighbourhood Active Living Potential (NALP) and the Irvine-Minnesota Inventory (IMI).



Arbor Creek in Saskatoon



NALP Route Map



IMI Segments Map

NALP consists of 22 items within four areas: Activity Friendliness, Safety, Density of Destinations, and Universal Accessibility. Using this method, observers rated each item on a 6-point scale after walking a pre-defined route in each neighbourhood connected by 10 randomly-selected street segments. The route, typically 4 to 5 kilometres in length, is shown in red on the map.

IMI consists of a 229-item inventory of neighbourhood features within five areas: Attractiveness, Diversity of Destinations, Pedestrian Access, Safety from Traffic, and Safety from Crime. Twenty percent of street segments in each neighbourhood were randomly selected and observed. Each segment is the two facing sides of a street block and is indicated by a numbered flag on the map.

The NALP tool is more subjective in nature and takes into account the impression of the entire neighbourhood based on the systematic observations of the researchers. In contrast, the IMI is more objective in nature and is based on observations of each individual segment. The following report will discuss how the characteristics of Arbor Creek compare to Saskatoon neighbourhoods in general.

Smart Cities Healthy Kids

Contact: Tracy Ridalls

306-966-2237

tracy.ridalls@usask.ca

www.smartcitieshealthykids.com

Arbor Creek Overview

Arbor Creek is located on the eastern edge of Saskatoon and is bordered by Highway 5, McOrmond Drive, Kerr Road, Berini Drive, and the CN railway line.

Arbor Creek was designed under the Municipal Development Plan of 1982. This plan focused on low-density development and separated single-family homes from all other forms of land use except parks, churches, and schools in order to protect property values. Arbor Creek is predominantly single-family residential, although there are pockets of medium-density housing. Further, the neighbourhood has no school and very few destinations.



Inviting pedestrian pathway

The streets in Arbor Creek are curvilinear in design with several crescents and culs-de-sac. Noticeably, there were curb cuts present at most observed intersections, although a few observed areas were missing sidewalks throughout the neighbourhood. With its wide streets and prominent garages, Arbor Creek is obviously designed to accommodate motor vehicles. Along Kenderdine Road there was an absence of places for pedestrians to safely cross. Motor vehicles can travel at relatively high speeds as this road has few traffic calming measures. Arbor Creek's location, adjacent to the Sutherland railway yards, restricts walking and cycling routes to the rest of Saskatoon. Overall, Arbor Creek is an attractive neighbourhood; however, it is not highly supportive of an active lifestyle.



Well marked pedestrian crossing

Safety

We rated each neighbourhood according to the presence or absence of certain neighbourhood elements that increase or detract from a feeling of personal security. Observing both the physical and social characteristics of the neighbourhood, security was measured both in terms of traffic and crime. These ratings suggest whether safety concerns affect an individual's related active living decisions in their neighbourhood.

- Out of a possible highest rating of 10, Arbor Creek rated **7.03** for Safety from Traffic, above Saskatoon's average rating of **6.06**. (IMI)
- Out of a possible highest rating of 10, Arbor Creek rated **9.03** for Safety from Crime, above Saskatoon's average rating of **8.46**. (IMI)
- Out of a possible highest rating of 6, Arbor Creek rated **4.00** for Safety, above Saskatoon's average rating of **3.81**. (NALP)

Arbor Creek's high safety ratings suggest that pedestrian and vehicular travel areas are well defined and safe to navigate and that there are few elements that reduce feelings of personal security. For example, most streets we observed had low traffic levels. The intersections with the most traffic included measures of safety for pedestrians. Further, well maintained homes, an absence of concealed spaces for lurking, and plenty of opportunities for casual surveillance of the street by home owners all contribute to the perception of personal security; however, we observed a high amount of graffiti in some areas of the neighbourhood.



Graffiti

Destinations

We rated each neighbourhood according to the number, diversity, and density of its destinations. These ratings suggest whether destinations in a neighbourhood can motivate deliberate, localized active living choices by providing a place to go and a means to interact with others.



Convenience Store

- Out of a possible highest rating of 10, Arbor Creek rated **3.00** for Diversity of Destinations, below Saskatoon's average rating of **6.26**. (IMI)
- Out of a possible highest rating of 6, Arbor Creek rated **2.39** for Density of Destinations, below Saskatoon's average rating of **3.92**. (NALP)

Arbor Creek's destination ratings suggest that there are few destinations of a limited variety. For example, observed destinations in Arbor Creek include a convenience store, a playing field, a playground, and a pond.

Activity Friendliness

We rated the activity friendliness of each neighbourhood based on specific features that encourage or present barriers to an active lifestyle. These ratings suggest whether a neighbourhood assists or limits the opportunities for physical activities such as walking, cycling, or skateboarding.

- Out of a possible highest rating of 10, Arbor Creek rated **5.13** for Pedestrian Access, above Saskatoon's average rating of **5.08**. (IMI)
- Out of a possible highest rating of 6, Arbor Creek rated **3.67** for Activity Friendliness, in line with Saskatoon's average rating of **3.67**. (NALP)



Pedestrian Access Way



Pedestrian Sidewalk Separated from Traffic

These activity friendliness ratings suggest that Arbor Creek has some supports and few obstructions for pedestrians. For example, most streets have a least one sidewalk, and when present, sidewalks are in good condition. Further, wide streets provide adequate room for cyclists. However, the street design with several crescents and culs-de-sac limits the route choices and access for pedestrians and cyclists.

Attractiveness

We rated each neighbourhood based on specific features that could potentially increase or decrease the attractiveness of the neighbourhood. This rating suggests whether the level of attractiveness for each neighbourhood itself can encourage or discourage individuals to participate in an active lifestyle.



Garage dominated streetscape

- Out of a possible highest rating of 10, Arbor Creek rated **4.99** for Attractiveness, above Saskatoon's average rating of **4.80**. (IMI)

Arbor Creek's attractiveness rating suggests that both attractive and unattractive features are present in the neighbourhood. For example, garages dominate most street views in Arbor Creek. Although young street trees are present on some streets, none are yet large enough to provide shade. The observed bus stops did not have benches or shelters, and no other street benches were observed. Some open spaces are undeveloped, and noise was frequently heard from the nearby industrial and railway area. However, the pond and nature features considerably increase the attractiveness of the neighbourhood.

Universal Access

We rated the universal accessibility of each neighbourhood according to the presence or absence of specific features that help or prevent safe movement for those with mobility, visual, or hearing impairments. These ratings suggest whether people with reduced mobility are able to travel in the neighbourhood safely without assistance.



Graded curb cut

- Out of a possible highest rating of 6, Arbor Creek rated **3.17** for Universal Accessibility, above Saskatoon's average rating of **2.19**. (NALP)

This universal accessibility rating indicates that Arbor Creek has some elements that enable safe movement for those with reduced mobility. For example, almost all sidewalks in Arbor Creek are mountable, and there are graded curb cuts present at most intersections. However, none of the observed pedestrian crossings are adapted for individuals with visual or hearing impairments.

The principal investigator for this project is Nazeem Muhajarine, PhD. For a complete list of contributing researchers, partner organizations, project staff, and more information, please visit our website: www.smartcitieshealthykids.com

If you have any further questions about the project, please contact our research co-ordinator tracy.ridalls@usask.ca or call 966-2237.