

City of Saskatoon November 2011

KINSMEN PARK MASTERPLAN

Volume 2: Appendices



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A1

WORKSHOP SERIES #2 WRITTEN COMMENTS

Appendix 1 includes all of the written comments received from the public and stakeholder workshops, from workshop series #2.

APPENDIX 1: WORKSHOP 2 COMMENTS

STAKEHOLDER WORKSHOP 2: WRITTEN COMMENTS

WHERE: Saskatoon Public Library

WHEN: June 1, 2011

- Boat docks: the tour and dinner boat docking area should be augmented over time to serve as a pull-out location for canoes and kayaks.
- That pull-out location could also incorporate a landing dock for one or two small motorized private boats for short-term tie-up (family visiting park facilities or attending Shakespeare as an example.)
- Planning of docking etc infrastructure should be done in close consultation with river boat operating company, etc.
- Based on concept 1, with emphasis on this being our first historic park: Bring in and restore/ recognize/ adapt heritage elements of park through time including the naturalizing river edge- riparian - excellent!! Thank you.
- Other key heritage considerations: the Mendel and its integration to the site, old bridge; restoring the water fountain dam features, trees,... existing sculptures, heritage plantings, bowling, pathways, play facilities, train(we have now), amphitheatre (river side) ...
- Being mindful that the river is also a "front" yard - love the walking trail + riparian area identified with this include a put in/ put out by shear water dock- create that into a picnic area - many people drawn to this area.
- Essential to declassify the street from arterial to collector, like the promenade extension - include bike lane + more access points to integrate the two sides of park - including being able to walk out the front of Mendel+head across the street. Ped + active transportation - priorities 1 + 2 cars -3.
- Re Mendel - utilizing for as much public space akin to what we have would be great - digital multimedia public - love it!
- The back of mendel is way under utilized. Bike/canoe/ kayak rentals - outdoor concession, restaurants, etc.
- Introduce perhaps the architecture school to the digital art to have display space, also the horticulture school
- Consider doing something more on the village/YWCA side to integrate those elements e.g community garden near by for emergency (residents?).
- Love the large area public programmable space (like NYC Battery park) and smaller park open space.
- Play for all ages/ seniors fixed chess table, adult+youth outdoor gym, skiing, like the warm up shack+ boost up the concession to a refit.
- Like the neighbourhood park connections to the local neighbours!! on the edges+ really nice transition + separation.
- Community gardens good though we don't need to overdo it as city park has one on the North side; the ones by the hospital + maybe nearer village would be good. also a garden aspect by mendel - using river water would be good.
- Lighting + such in and around park- lets use solar+wind - picking up on the South facing aspects of area + river+wind to operate the play area + such e.g. Shakespeare - unplugged!
- A distinct sense of place; still like the idea of having the Mendel as Mendel-like as possible - accessible, tree, combination of static + active programming that splits out on to the site; creating a great urban place.
- Parking = share hospital parking in off hours.
- Plan #1 - the parking all together is nice, I appreciate that it is accessible from both sides of the lot (not a dead end)
- Could the remaining un-allocated space beside the bridge (with the traffic circle) be utilized as community gardens or skateboard park?
- Hi, I would like to see a woodchip trail circuit. This would be used by many different users: Running intervals, old guys like me (spring to fall), track clubs, elementary school, high school and university (spring and summer, Cross country teams (fall) - minimum 1 Km
- I really see a need for pedestrian overpasses in concept 1 and 2.
- Possibly 1 central overpass that funnels people from the 2 parking spaces to a central hub for the play area, concession, picnic area.
- Possibly another overpass or passes on 25th street to

allow seniors + downtown high-rise people mind-block or base of bridge and Kinsmen BLVD

- Easier + safer access should improve use of the park.
- For winter Ski activities, Cross Country Canada has ideas and concepts for a ski playground. Cross Country Canada is the national provider of skills development programs for children involved in recreational skiing.
- Attention to safe access.
- No thru traffic in parking area east of Spadina.
- Reduce speed to school zone or add speed bumps Spadina near park.
- Concept 2 traffic arrangement better
- Community garden close to river could use river water irrigation.
- A - unanswerable
- B - need to have more specifics - e.g. giant chess boards; tai chi spaces
- gathering spaces - logs in a circle.
- What is planned for adults, seniors w/ + w/o walking issues), trees? We know some of the plans for children.
- What about safety?
- glad re festivals.
- C - green- Yes! (see comment re community garden)
- Trees not bushes, safety issue.
- either concept must include this component (1+2)
- D - includes washrooms thru/o ; benches thru/o
- You have missed out completely play such as mat play, somersaults, skipping etc, which coaches are seeing many children can not move bodies well - a crucial stance today.
- what is for seniors?
- Conservatory accessible! [in the options for evaluation]
- water park (spray - large park varying sprays + depths for children of various ages.)
- possible canoe trail
- overall like the idea of moving the play area to make it more accessible, however unless you can provide a solution to the traffic issues off of the bridge + up Spadina. it should never even be considered.
- really hard to tell from existing drawings. Would like to add more flowers, etc.
- huge problem here to address with concept 1.
- need to make the park more well it because right now it is a very unsafe place to be in the evening
- Concept 1 will virtually cut off all traffics to the north end of the city. There exist right now only two routes to the north end - either Spadina or 2nd. Turning this into a Broadway area will remove one access route entirely.
- winter - both formal parks are closed. perhaps we can find ways to utilize them year-round.
- No extra parking
- no parking where there was once separated bike lanes
- all lighting facing down + solar powered to prevent light pollution
- outdoor exercise park for seniors would be great
- no through-way connecting major streets w/ parking lots east of Spadina
- lower speed limits on Spadina (school zone)
- love the underpass w/ old bridge
- skate park on land next to bridge
- community gardens near river water
- No moving play parks + parking lots around
- I think one big question is whether Spadina Crescent continues to function as an arterial route as this has implications for the overall design.
- Could 25th through 33rd street become one-way (going north) which could imply traffic lights at 33rd + 7th Ave

APPENDIX 1: WORKSHOP 2 COMMENTS

PUBLIC WORKSHOP 2: WRITTEN COMMENTS

WHERE: Saskatoon Public Library

WHEN: June 1, 2011

- Options do not display or provide concept in how winter or all season activities will be incorporated into the park.
- Vision does not reflect use of park in winter or all seasons.
- Suggest revision of vision to reflect all season + winter use as key aspects of park.
- Concept needs to include winterized warm up facility regardless
- I prefer option 1, however a little worried about cost of this option.
- It would be useful to have a better overpass or underpass due to the amount of traffic on Spadina for either option 1+2 (in addition to the bridge)
- Metal play structures can become slippery/ unusable in winter.
- Could the community park in plan 1 include a small play structure for preschoolers. They tend to get lost in the big playgrounds, especially at a large destination playground. Local families with small children appreciate an intimate space for play.
- Where are the connections to downtown?
- What is implied by a connection to the river?
- How can you get more people to just go to this space?
- The train is a cartoon. Passenger rail and public transit in this city is a joke, and the train puts it on display.
- More people are not going to come to this space by doing the same thing.
- The uses of this park are predefined and to actually increase the use of the space, change has to be made.
- Why is commercial space at City Hospital not part of this conversation?
- Concept 1 could incorporate the more dispersed smaller playgrounds from concept 2 to allow children in surrounding neighbourhoods easier access.
- Winter activities are very important but certainly not the only activity
- Master plan review in September 2011 is too close to City Council approval.
- Modernizing rail tracks BAD IDEA! It would lose a large part of its history related magic.
- Jazz or any other type of festival involving noise will never float can it know. Way to many old folks around there that vote!!
- Traffic circles a busy road wont work here. Too few people can drive here.
- I still think the Mendel building would make a great Saskatoon City Hobby and Model Centre with local contests, shows, and exhibitions, RC planes, Helicopters, cars, model rail road, photography, sewing, etc.
- Concept for park redo: Idea is basically moving the Spadina Route down to the river bank allowing pedestrian free traffic and opening up the whole park "road free"! [with illustration]
- Sorry! We can not understand the questions!
- We need:
 - winterized washrooms
 - no disruption of ski trails by new construction or other activities.
 - secure storage for show machines and trail setting equipment.
 - a winterized kitchen or at least a sink for washing cups would be very useful.
- This is for the enhancement of children's ski lessons, and other ski activities.
- Concept 1 seems better for keeping the ski trails most easily maintained.
- IDEA:
 - Amphitheatre rebuild by the river
 - Could relocate the 1/2 circle of planted trees + create sculptured amphitheatre with stepped seating.
 - Rammed earth backdrop along the path.
 - Full height for performances
 - Rammed earth steps.
 - Possible tensile structure for fabric canopy.

- look at www.sirewall.com
- look at Grand Beach in Manitoba
- Articles on the Winnipeg freepress
- MB. gov - using rammed earth for provincial park facilities
- I found this process frustrating!
- I was not provided with enough information to really understand what the options were! difficult to evaluate!
- The Mendel A.G. (art gallery) should not move! however, this has been determined to be non-negotiable! to add this on to the discussion / input was too confusing.
- In terms of my wish list...
 - a heated facility with washrooms for winter use
 - safe access to the park.
 - a focus of use that is geared to city-wide? Neighbourhood, District.
 - keep the ski trails
- winter activities need clarity
- very disappointed with winter activities
- I need way more to do this properly but concept 1 is definitely better.
- ski trails must not be an after thought
- I like the mound especially.
- Concept 1 better for summer - don't know what winter design is.
- we don't know what the winter plan is
- local/ tourists in summer/ winter depends on seeing the plan
- what is there for teenagers and adults?
- can we still "play" (ski) in the winter?
- need storage building for ski grooming equipment
- clarified instruction would help participants get started on this!
- enhancing the connection between the park and downtown
- shouldn't be the focus/ Children's festival? cant tell from concepts
- can not assess the difference, the same for both.

A2 CHILDREN'S FESTIVAL WORKSHOP IDEAS

Appendix 2 includes all of the written comments received from the during the Children's Festival.

APPENDIX 1: WORKSHOP 2 COMMENTS

CHILDREN'S FESTIVAL WORKSHOP: IDEAS POSTED ON STICKIES

WHERE: PotashCorp Children's Festival of Saskatchewan, Kiwanis Park, Saskatoon, SK

WHEN: June 5 - 8, 2011

Wouldn't it be great if...

- a huge sled that fills up a road
 - fast
 - lots of people
- water slide
- monkey bars
- would love to see dedicated bikeways physically separated from car traffic so we can bike safely with our 4-year-old through the park in all directions
- water rides where you wear helmets
- water slide
- I love about swimming
- rides
- boats
- I want a roller coaster
- have days set aside for when train/carousel can be booked privately so that general public doesn't go expecting to enjoy rides as well!
- more Lego!!!
- roller coaster
- rock mountain
- public BBQs + Tables
- change laws to allow longboards downtown
- tobogganing
- ice slides
- climbing Trees
- skating
- ferris Wheel
- Climbers
- I would like to see people going there by bikes so there are safe was to play and walk around there. Safe environment too.
- using laminar flow outlets to pup very short balls of water into the air. Easy to clean.
- I want a swimming pool
- roller coaster
- climbers
- climbers for older kids 8-12
- simply a safe, child-friendly area for all ages 0-12yrs
- make Mendel a children's facility (museum, etc.)
- solar-powered Ferris wheel
- ferris wheel
- swings Spider climber
- slide
- kites
- dragon festival
- rock climbing wall
- trampolines
- animals
- climbing
- shooting gallery
- climbers
- rides
- water
- 10 storey candy bar
- winter skating rink
- roadway roundabout where Spadina merge meets near Mendel Art Gallery / Shakespeare
- make the Mendel into a children's museum + then add climbers
- roller coaster
- balloon rides
- ferris wheel
- ferris wheel
- maze
- zipline
- ice-slide
- water park
- ice-slide
- maze climbers

- wild animal park
- ferris wheel
- hiking / nature
- crazy big winter slide
- please keep the statues of the children in play
- ferris wheel
- ferris wheel
- spider web climber
- wi-fi
- coffee shop
- newspaper stand
- water slide
- maze
- ferris wheel
- climbing wall
- ferris wheel
- winter slides
- swimming
- bobsled run
- wave pool
- real horses
- zip line
- skydiving
- waterslide (big)
- Lego store
- Lego to build with
- water park
- bike racks
- flying fox zipline
- maze
- more things to do for kids
- play structure
- a ferris wheel
- swimming
- zipline
- ferris wheel
- big slide
- swimming
- no sand
- candy
- a bigger water park
- zipline
- train + big winter slide
- indoor things for kids in winter
- sledding hill
- ferris wheel
- beer garden
- grid of metal squares - step on it + it makes a chime sound (Salzburg)
- roller coaster
- bumper cars
- somewhere to site + change
- go-karts (fast + slow)
- animals
- rock climbing
- BBQs back
- more water
- bigger water play area
- keep train
- spider web climber
- painting
- big climber
- swimming pool
- zoo
- go-carts
- fish
- zipline

A3 PLAY RESEARCH

Appendix 3 includes an overview of some of the research and principles that inform the design of play environments for all ages.

All images in this report are credited to Space2Place Design Inc. unless indicated otherwise.

DESIGN PROCESS



LEARNING THROUGH PLAY

Educator Dale Mann notes that “Play is under utilized as a learning strategy... despite the hundreds of empirical citations documenting its power in cognitive development, language development, the growth of imagination and creativity, and the development of social competence.” (Mann, 1996). Play is a means for children to actively engage with their physical environment in a social setting, and this type of engagement supports learning and development. The play area itself may be designed to promote inquiry-based learning and foster inventiveness by providing malleable materials so that children are able to shape and manipulate their physical environment. The images to the right show a child playing at Garden City Park using sand to construct dams and manipulate the flow of water. This type of play allows children to develop a greater understanding of the properties of water, sand, basic principles of engineering and observational skills, in addition to individual and group problem-solving.

THE ENVIRONMENT AS THE ‘THIRD TEACHER’

The Reggio approach to education likewise emphasizes the role of the physical environment in supporting a child’s learning. Based on principles founded by Loris Malaguzzi in the preschools of Reggio Emilia, Italy, the Reggio approach describes the physical environment as the ‘Third Teacher’. This approach recommends that the children’s play spaces are designed to facilitate movement, interaction and interdependence while providing a range of activities children may choose from. Advocating inquiry-based learning, the Reggio approach highlights the role of the environment in stimulating a child’s curiosity and providing opportunities to investigate, experiment, and test out solutions to one’s own questions.

Current research in neuroscience demonstrates the importance of play in cerebellum development, and the evolutionary importance of play in a range of mammal species. Play trains children to be adaptive with greater mental dexterity and the ability to modify their behavior under varied conditions. Physical play may enhance children’s social competence and problem-solving skills, while fantasy and role play allows children to act out their future as they develop language, communication and socialization skills.



Sources:

Henig, R.M. (2008) Taking Play Seriously, New York Times Magazine, February 17, pp. 38-45, 60, 75.

Herrington, Lesmeister, Nicholls and Stefiuk (2007) Seven Cs: an informational guide to young children’s outdoor play spaces <http://westcoast.ca/playspaces/outsidecriteria/index.html>

Mann, D. (1996) Serious Play, Teachers College Record, 971(3), pp. 446–469.

SEVEN C'S

CRITERIA FOR OUTDOOR PLAY ENVIRONMENTS

Seven Cs is a set of criteria developed from a five-year multidisciplinary study of outdoor play environments conducted through the Consortium for Health, Intervention, Learning, and Development (CHILD) Project at the University of British Columbia. Key findings from the study are summarized in an informational guide to young children's outdoor play spaces, named the Seven Cs. These guidelines are based on research from local examples of childcare facilities, and are intended to be used by designers, early childhood educators, teachers, administrators, and parents. The guide identifies the following seven specific physical conditions to help inform the design of outdoor play environments for young children:



CONTEXT

Context refers to how the playground is integrated with its surroundings. Physical and visual and physical connections to the surrounding neighbourhood are emphasized to facilitate access and to provide views that extend beyond the site. Water, vegetation, sun and shading are considered both within the site itself, and in relation to its larger setting.



CHARACTER

Character refers to the overall feel and design of the outdoor play space. The design intent that shapes the site might be described as modern or organic. The physical environment children engage with is important in their development, as they form memories, learn classification skills, identify concepts of scale, and use language to describe their experiences.



CONNECTIVITY

Connectivity addresses the physical, visual and cognitive connections within the play space. The flow of play activity may be enhanced by providing a hierarchy of looped pathways that link play elements and orchestrate movement through the site at various speeds. Dominant, multipurpose paths may accommodate various modes of mobility and larger groups of users, while subordinate paths may offer opportunities to explore 'secret' spaces.



CHANGE

Change represents variety within the play environment, and its alteration through physical manipulation and natural processes. A range of differently sized spaces within the playground accommodates larger groups and private niches for one or two children. Malleable materials such as sand and water give children the opportunity to physically shape their environment. The site should also reflect the seasonal cycles of vegetation and the changing patterns of weather and animals.



Image: Helle Nebelong

CLARITY

Clarity combines physical legibility and perceptual imageability. A simple design that is clearly laid out makes the play space easy to navigate and allows children to focus on their activities. Hard surfaces, minimal vegetation, and loud traffic may make the site noisy, creating a general atmosphere of confusion and stress. A high vantage point allows children and supervisors to view the entire site, while clear entry and exit spaces help prevent accidents.



Image: unknown

CHANCE

Chance relates to the opportunities provided for children to use their imagination and be inventive. Spontaneous exploration of the play space may be encouraged by adding an element of mystery to the site. When investigating their environment, children use both their body and their mind, which is key to cognitive development. Messy zones that provide places to dig, splash, and construct things out of 'loose parts' promote imaginative play.



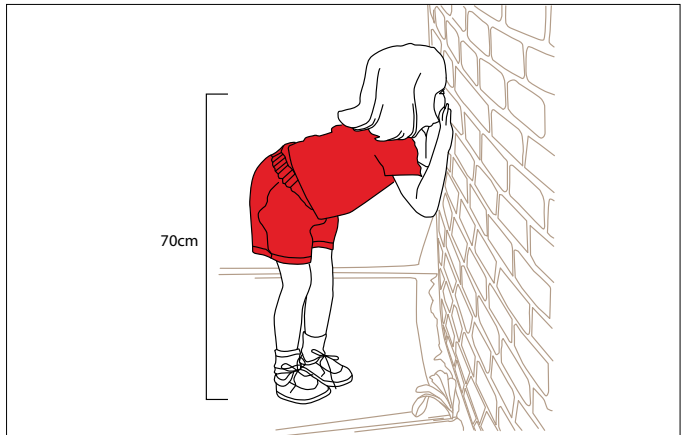
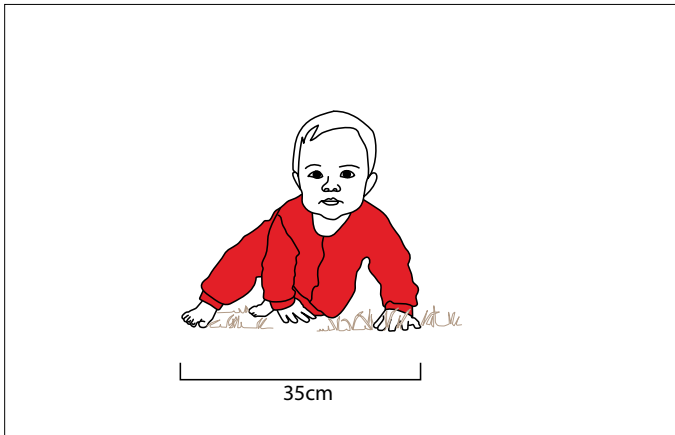
CHALLENGE

Challenge allows children to experiment with the limits of their physical and cognitive abilities. Risk-taking is key in developing skills and self-confidence. Graduated challenge accommodates a range of abilities by providing different levels of difficulty for each activity. Balance, strength, coordination, and problem-solving skills are developed as children master successive levels of difficulty and reach their full potential.

PLAY RESEARCH

AGE-APPROPRIATE DESIGN

PIAGET'S THEORY OF COGNITIVE DEVELOPMENT



AGE 0 TO 2

SENSORY-MOTOR

- initially limited to reflex activity
- intentional activity develops
- increasing physical coordination
- beginning to talk
- develops an awareness of cause and effect

- experiences the world through their senses
- interaction with the ground plane
- increasingly tests their physical ability
- increasing hand-eye coordination
- increasingly cooperates with others
- developing symbolic play



AGE 2 TO 7

PRE-OPERATIONAL

- rapid conceptual development
- rapid verbal development
- thought is pre-logical
- unable to assume another's viewpoint

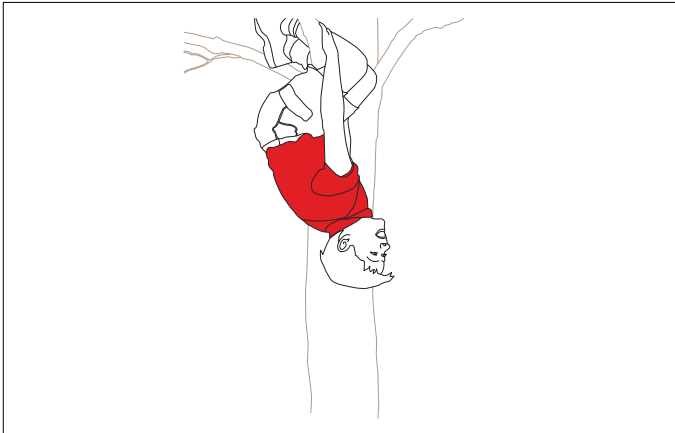
- elaborate symbolic play
- role play
- fantasy play
- sensory activities
- increasingly cooperates with others
- places to retreat or be alone

ATTRIBUTES

DESIGNING FOR PLAY

Sources:

Wadsworth, Barry (1979) Piaget's Theory of Cognitive Development, second ed. Longman, New York: New York
 Herrington, Lesmeister, Nicholls and Stefiuk (2007) Seven Cs: an informational guide to young children's outdoor play spaces
<http://westcoast.ca/playspaces/outsidecriteria/index.html>



AGE 7 TO 11

CONCRETE OPERATIONAL

- uses logic to solve concrete problems
- able to assume another's viewpoint
- language is social and communicative
- able to classify and place in series

- interest in structured play with rules
- increasingly independent
- increasing importance of peers
- increasingly competitive
- physical or active play
- theatrical performance
- observes nature
- enjoys collecting



AGE 11 TO 15

FORMAL OPERATIONAL

- able to solve hypothetical problems
- able to solve verbal problems
- able to use scientific reasoning
- capable of introspection

- often active in sports
- larger social groups
- increasing importance of peers
- enjoys 'hanging out'
- attention seeking behaviour
- 'daring' activities

ATTRIBUTES

DESIGNING FOR PLAY

AGE-APPROPRIATE DESIGN

LEARNING AS ADULTS

Learning is accumulative in all stages of development as we build on the understanding and insight gained through life experience. As we mature from children to adults, our learning is increasingly self-directed and we continually define for ourselves the value of what is being learned. Opportunities for learning may be enhanced through one's physical and social environment, as well as available resources.



Photo: unknown

● YOUNG ADULT

- competence in abstract and concrete thinking
- learning is increasingly self-directed and self-motivated
- increased self-evaluation of learning outcomes
- exposed to conflicting opinions among educators, role models and family members
- increased ability to synthesize learning from diverse sources
- often a transition to independent living establishes broader social influences
- focus of learning often increasingly compartmentalized
-



Photo: unknown

● ADULT

- learning is self-directed and self-motivated
- focus of learning is often on gaining or improving employable skills
- learning is often increasingly specialized
- potential obstacles include limited time and/or finances
- parents are often engaged with their child's development and education, which influences their own learning
-



Photo: unknown

● MATURE ADULT

- focus of learning may shift away from employable skills
- increased available time to pursue interests
- may have limited financial resources to pursue interests
- may face challenges of cognitive decline
- decline in physical abilities may require modification of physical environment such as level walking surfaces and increased use of handrails
- decline in vision and hearing may require modification of communication techniques

ENGAGING YOUTH IN PUBLIC PARKS



Image: Corocord

Historically, parks and playgrounds were designed to emphasize physical development for youth and children. MacLeod has written about this history, recounting that the number of children raised farms and engaged in physical labour decreasing with the rise of urbanization. Physical activities for children and youth were organized to counter physical frailty and to provide “a necessary outlet for the sexual and other energies of adolescents” (1987). MacLeod continues:

Supervised athletics were seen as an antidote to middle class youth “turning soft” and organized sports fostered strength and courage. Recreation specialists at the turn of the century claimed that regimented and supervised team sports could teach lower-class boys obedience and cooperation (MacLeod 1998).

Children and youth are now viewed more holistically, integrating the physical, emotional and intellectual needs of the individual. This has been supported through a greater

understanding of child development through research on brain development. It had been believed that the brain reached maturity at the age of ten or twelve, but now studies show that the frontal lobe matures in the early 20s, and in this phase cognitive functions shift to the prefrontal cortex, which is responsible for self-control, judgment, emotions and organization. (ACT for Youth, 2002).

A list of the physical, emotional and intellectual capacities of youth aged 13-17 is listed on the following page, and can be used by park designers and programmers to help inform their designs. A range of sources recommend directly engaging youth in the design of spaces and programs intended for their use. Gearin and Kahle highlight the fact that children and teenagers make up a significant portion of park users, yet they are rarely consulted in the design process or user surveys (2006). In their own focus groups working with urban youth, these authors note that the youth expressed a strong preference for spaces that facilitated multiple uses: “They used limited spaces flexibly, from active sports

activities with friends, to family gatherings and barbecues, to passive socializing.” (2006). Likewise, Margery Turner emphasizes the need to tailor youth programs to specific age groups, rather than treat youth as a homogenous whole. She notes that “...the most effective programs do not try to be all things to all young people. No single program can or should try to serve all the children and adolescents in the community” (2004).

It is clear that we need to accommodate children and youth in the public realm, and to encourage their participation in the public life of the community. Research conducted in the UK indicates that the behavior of adults towards children and youth in public space can be a significant deterrent. The study notes “while two thirds of children aged seven to sixteen like to play outside daily, 80 per cent say that they have been told off for doing so, and one in three says that this stops them from playing outdoors” (CABE 2004).

It is important to create spaces that encourage youth participation, and fosters an environment of respect. But it is challenging to design a space that youth will appropriate, since their underlying reasons for selecting a public hang out space is often unclear: “Young people will spontaneously select and then appropriate open space. Their use of space that accommodates this informal appropriation, or ‘slack space’, treads a fine line between asserting ownership and behaving anti-socially. It is a challenging issue that needs to be tackled head on, as an understanding of the importance of ‘slack space’ can have a significant effect on the design and participation process” (CABE 2004). The authors describe ‘slack space’ as an informal hangout spot, where youth can socialize with their friends. Common traits among hang out spots selected by young people are that they tend to be “reasonably sheltered, lit at night, separate from places adults use and clearly definable” (CABE 2004). Karen Malone notes that public space is often used by young people as a venue where they experiment with and construct their social identity through their relationships with their peers and members of their wider community. Speaking of the public realm as “a stage for performance”, Malone recounts “Many of the identities young people adopt within the public domain are contradictory and oppositional to the dominant culture (messy, dirty, loud,

smoking, sexual); others have an easy fit (clean, neat, polite, in school uniform)” (2002). One design response intended to create public spaces for youth has been ‘youth shelters’, which are small covered areas open on all sides. These shelters are best located at natural gathering spaces in parks and other public spaces, where they are within public view from passers-by, and therefore create a stage for the public performance referred to by Malone. Rather than site these shelters in marginalized and under used areas, Worpole emphasizes the need to site such youth spaces in lively sites, yet at a distance from children’s playgrounds and residences, “in order to give young people a distinct status and place of their own” (2002).

Such shelters represent a smaller gesture to accommodate youth in urban areas, but the positive effects of an immersive experience in nature for young adults have been widely acknowledged.

Stephen Kellert has written about the positive effect of wilderness adventure programmes and environmental education on young adults. Citing numerous studies on such programs he lists the physical, emotional, and intellectual benefits for youth. He views the rise in popularity of these programmes as:

One, recognition of the need to better equip young people with the attitudes and skills necessary to ameliorate a wide range of serious environmental problems facing humanity today. And, two, a growing belief in the importance of outdoor experience as a way of fostering productive, creative, and self-confident young people. (Kellert 1998)

Although not all young adults have access to these outdoor programs that may be several weeks in length, research has shown that even a view of trees or natural environments can help teenage girls improve their self-discipline through enhanced concentration, inhibition of impulsive behavior, and delay of gratification (Taylor et al., 2002). From providing a view of trees to accommodating youth spaces to gather and socialize, public parks are key areas for fostering the healthy development of young people.

Margery Turner reminds designers and program developers to work with the strengths presented by the park itself: “Parks should design their youth initiatives around the unique assets and opportunities their particular facilities offer” (2004). In addition to existing facilities, the physical characteristics of the landscape itself provide a key foundation to developing a unique experience for the visitor that promotes a greater understanding of local ecologies and the site’s connections to larger natural systems.

Physical Development

Most teens, ages 13 to 17 will:

- Complete puberty and the physical transition from childhood to adulthood
- Reach nearly their adult height, especially females [Males continue to grow taller into their early twenties.]

Cognitive Development

Most teens, ages 13 to 17 will:

- Attain cognitive maturity—the ability to make decisions based on knowledge of options and their consequences
- Continue to be influenced by peers [The power of peer pressure lessens after early adolescence.]
- Build skills to become self-sufficient
- Seek increased power over their own lives
- Learn to drive, increasing their independence

Emotional Development

Most teens, ages 13 to 17 will:

- Have the capacity to develop long-lasting, mutual, and healthy relationships, if they have the foundations for this development—trust, positive past experiences, and an understanding of love
- Understand their own feelings and have the ability to analyze why they feel a certain way
- Begin to place less value on appearance and more on personality



Photo: unknown

SUMMARY

It is generally acknowledged that youth are the most challenging group of people to include when designing public spaces. From the above review the following key points about youth are relevant to the design of the Surrey Nature Centre:

- Learning is increasingly self-directed learning.
- Leadership opportunities are desirable.
- Multi-functional spaces are preferred.
- Hang-out or slack space should be sheltered but visually permeable, within view of adults but not too close, and away from play space for small children.
- Wilderness adventure programs especially immersive ones are important.
- Environmental education is desirable.
- The physical characteristics of the landscape can be used to provide a connection to the region.

This information reinforces the feedback that was provided at the Stakeholder workshop. The youth, in particular, expressed a desire for performance/theatre space, environmental monitoring programs, volunteer and leadership opportunities, camping, hang-out activities, and interactive environmental learning programs.

Sources:







- Turner, Margery (2004) "Urban Parks and Partners in Youth Development" *Beyond Recreation: A Broader View of Urban Parks*. The Urban Institute.
- ACT for Youth (2002) *Adolescent Brain Development*. Cornell University, University of Rochester, an NYS Centre for School Safety."
- Advocates for Youth "Growth and Development, Ages 13-17 – What Parents Need to Know" (http://www.advocatesforyouth.org/parents/13_17.htm)
- CABE (2004) *What would you do with this space? Involving Young People in the Design and Care of Urban Spaces*.
- Childress, Herb (2004) "Teenagers, Territory and the Appropriation of Space" *Childhood*, Vol. 11, No. 2, 195-205
- Stephen R. Kellert, with the assistance of Victoria Derr (1998) *A National Study of Outdoor Wilderness Experience*. School of Forestry and Environmental Studies, Yale University.
- Gearin, Elizabeth and Chris Kahle (2006) *Teen and Adult Perceptions of Urban Green Space Los Angeles*. *Children, Youth and Environments* 16(1).
- Faber Taylor, A., Kuo, F.E., & Sullivan, W.C. (2002). "Views of Nature and Self-Discipline: Evidence from Inner City Children." *Journal of Environmental Psychology*, 22, 49-63.
- Macleod, D.I. (1998). *The Age of the Child: Children in America, 1890—1920*. New York: Twayne Publishers.
- Macleod, D.I. (1987). "Act Your Age: Boyhood, Adolescence and the Rise of the Boy Scouts of America." In Graff, H.J., ed. *Growing Up In America*. Detroit: Wayne State University Press, 397-413
- Malone, Karen (2002) "Street Life: Youth, Culture and Competing Uses of Public Space" *Environment & Urbanization*, 14(2), 157-168.
- Ken Worpole (2002) *No Particular Place to Go? Children, Young People and Public Space*

A4 RIDES RESEARCH

Appendix 4 includes a comparison of a range of amusement rides and play features that were considered in the preliminary design of the Kinsmen Park play area.








APPENDIX 4: RIDES RESEARCH

Kinsmen Park Preliminary Ride Comparison - Draft ver.2 (Aug. 11, 2011)

Name / Type	Character Image	Price Range*	Operator Required	Level of Maintenance	Complexity of Maintenance	Target Age	Height Restriction	Spatial Requirements	Manufacturer	Passive/Active	Motion	Capacity
Miniature Train		Varies: Potentially \$500k - \$1mil	Yes	High	High	0 - Adult	N/A	Station: 6m x 12m Track length varies	Arizona Railroad Depot (800) 963-0068	Passive	Slow (<8km/hr) forward	24 passengers
Carousel		\$300,000	Yes	High	High	2 - 8	N/A	15m dia. x 6m ht.	Chance Morgan (316) 945-6555,	Passive	Slow, horizontal rotation	24 passengers
Ferris Wheel		\$330,000 - \$400,000	Yes	High	High	4 - 8	1200mm unacc. 900mm acc.	18.6m x 12.2m x 20.4m ht	Eli Bridge (217) 245-7145	Passive	Slow, vertical rotation	48 children (3 per seat)
Balloon Race		\$250,000	Yes	High	High	3 - 6	1050mm unacc. 900mm acc.	14m dia x 9m ht.	Zamperla USA (973) 334-8133	Passive	Forward, circular, vertical	32 passengers
Children's Parachute Tower		\$250,000	Yes	High	High	5 - 10	1200mm unacc. 1050mm acc.	12m dia. x 20m ht.	Intamin (410) 768-4000	Passive	Vertical	12 passengers
Mini Tea Cup		\$75,000	Yes	High	High	3 - 6	1050mm	8m dia. x 2.5m ht	Zamperla USA (973) 334-8133	Passive	Spinning	24 passengers

* Prices are approximate & do not include installation. For comparison purposes only.







Kinsmen Park Preliminary Ride Comparison - Draft ver.2 (Aug. 11, 2011)

Name / Type	Character Image	Price Range*	Operator Required	Level of Maintenance	Complexity of Maintenance	Target Age	Height Restriction	Spatial Requirements	Manufacturer	Passive/Active	Motion	Capacity
Roller Coaster		\$2 mil. - \$3 mil.	Yes	High	High	5 - 10	1200mm unacc. 900mm acc.	varies: 35m x 24m x 6.5m ht	Intamin (410) 768 40 00, Zamperla USA (973) 334-8133	Passive	Fast, forward	12 - 16 passengers
Samba Tower		\$250,000	Yes	High	High	5 - 10	1050mm unacc.	8.7m x 9.9m x 13m ht	Zamperla USA (973) 334-8133	Passive	Vertical	32 passengers
Scrambler		\$300,000	Yes	High	High	5 and up	1200mm unacc. 900mm acc.	18.2m dia. x 6.4m ht	Eli Bridge (217) 245-7145	Passive	Fast, spinning	36 passengers
Tilt-a-Whirl		\$75,000	Yes	High	High	4 - 8	1150mm	15m dia.	Sellner Manufacturing 1-888-SELLNER	Passive	Spinning, tipping	24 passengers
Wave Swinger / Yo-Yo		\$600,000 - \$800,000	Yes	High	High	5 - 10	1050mm	22m dia.	Chance Morgan (316) 945-6555	Passive	Fast, forward circular	32 passengers
Eurythmos		\$75,000	No	Low	Moderate	8 and up	N/A	18m dia. x 3.5m ht	Corocord Distributor: RecTec (604) 940-0067	Active	Climbing, bouncing	20
Forest Bridges		\$30,000 - 75,000	No	Low	Moderate	5 and up	N/A	variable layout x max. 3m ht	Corocord Distributor: RecTec (604) 940-0067	Active	Climbing, balancing	High

* Prices are approximate & do not include installation. For comparison purposes only.

APPENDIX 4: RIDES RESEARCH

Kinsmen Park Preliminary Ride Comparison - Draft ver.2 (Aug. 11, 2011)

Name / Type	Character Image	Price Range*	Operator Required	Level of Maintenance	Complexity of Maintenance	Target Age	Height Restriction	Spatial Requirements	Manufacturer	Passive/Active	Motion	Capacity
Giant Orion Spacenet with 3 trampolines		\$75,000	No	Low	Moderate	8 - 15	N/A	19m dia. x 3.5m ht	Corocord Distributor: RecTec (604) 940-0067	Active	Climbing, bouncing	40
Jumping Pillow		\$30,000	No	Moderate	Low	0 - Adult	N/A	13m x 24m	Jumping Pillow (865) 387-8706	Active	Jumping	45
Lookout Tower & Slide Combination		\$400,000 - \$700,000	No	Low	Low	4 - Teens	N/A	18.5m x 21.5m x 20m ht 25.0m x 27.0m x 26m ht	Kaiser & Kuhne Distributor: RecTec (604) 940-0067	Active	Fast sliding, Climbing	40
Rope Parkour		\$30,000 - 75,000	No	Low	Moderate	5 and up	N/A	16.4m x 16.8m x 3m ht Varies depending on design	Corocord - Distributor: RecTec (604) 940-0067	Active	Climbing	High
Ropescape		\$75,000 - \$150,000	No	Low	Moderate	5 - 12	N/A	25m x 30m x 3.5m	Corocord Distributor: RecTec (604) 940-0067	Active	Climbing	High
Zip Line		\$13,000	No	Low	Low	4 - Teens	N/A	3m x 15m	Kaiser & Kuhne Distributor: RecTec (604) 940-0067	Active	Fast, forward, horizontal	1

* Prices are approximate & do not include installation. For comparison purposes only.

A5 STANTEC TRAFFIC STUDY

Appendix 5 includes traffic impact study for Spadina Crescent through Kinsmen Park including the existing conditions a potential T-intersection and the proposed roundabout shown in the long-term phase of the master plan.



**Kinsmen Park Master Plan
Traffic Impact Study
Draft Final Report**

Prepared for:

City of Saskatoon

Prepared by:

Stantec Consulting Ltd.
100 – 75 24th Street East
Saskatoon, Saskatchewan

September 2011
File: 113155006
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**KINSMEN PARK
TRAFFIC IMPACT STUDY**

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KINSMEN PARK TRAFFIC IMPACT STUDY

1.0 Introduction

1.1 BACKGROUND

The City of Saskatoon is currently in the process of creating a functional Master Plan for the Kinsmen Park and Area. As part of this Master Plan, Space 2 Place Landscaspe Architects have developed functional plans for the Kinsmen Park corridor of Spadina Crescent East from Queen Street to 25th Street East.

Stantec Consulting Ltd. (Stantec) has been retained by the City of Saskatoon to complete a Traffic Impact Study (TIS) for the proposed re-development. The TIS is to determine the impacts the proposed re-development will have on the surrounding roadway network, and to identify potential problem areas and mitigation strategies to resolve those problems.

1.2 SCOPE

The principle objectives of this TIS are to:

- Determine existing traffic operating conditions for the roadways and intersections serving the development site for the weekday morning, afternoon, and Saturday peak hour time periods;
- Determine traffic operating conditions at key intersections after the development is completed for the weekday morning, afternoon, and Saturday peak hour time periods;
- Determine if additional pedestrian facilities are required to ensure safety.
- Identify potential locations of unacceptable congestion; and
- Determine roadway, intersection and access improvements required to provide acceptable levels of service and safety.

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2.0 Existing Conditions

2.1 TRANSPORTATION SYSTEM

The proposed roadway re-development is situated along Spadina Crescent between 25th Street East and Queen Street.

2.1.1 Study Area Roadways

The following roadways in the vicinity of the proposed development that may be impacted by the re-development:

- **Spadina Crescent** – is a two lane undivided major collector urban roadway. The roadway has a posted speed limit of 50 km/hr and parking is prohibited on both sides of Spadina Crescent within the study area;
- **Spadina Crescent Southbound Loop** – is a single lane roadway diverging from Spadina Crescent Northbound providing access to Spadina Southbound and the University Bridge.
- **Spadina Crescent Northbound Ramp** – is a two lane undivided urban roadway. The roadway has a speed limit of 50 km/hr.
- **Queen Street** – is a two lane undivided minor collector urban roadway with parking on both sides. The roadway has a speed limit of 50 km/hr.

2.1.2 Study Area Intersections

The following are intersections in the vicinity of the proposed re-development:

- **Spadina Crescent/ Spadina Crescent Southbound Loop** – provides a single free flow lane diverging from Spadina Crescent onto the Spadina Crescent Southbound Loop
- **Spadina Crescent / Spadina Crescent Northbound Ramp** – is a modified T intersection and is currently signalized. There is a left turn lane in the southbound direction.
- **Spadina Crescent / Mendel Art Gallery Parking Access** – is an unsignalized T intersection that provides stop control for the westbound vehicles leaving the parking lot. A pedestrian crosswalk exists at the north leg of the intersection.
- **Spadina Crescent /Queen Street**– is a signalized T intersection including right turn channelization in the eastbound direction.

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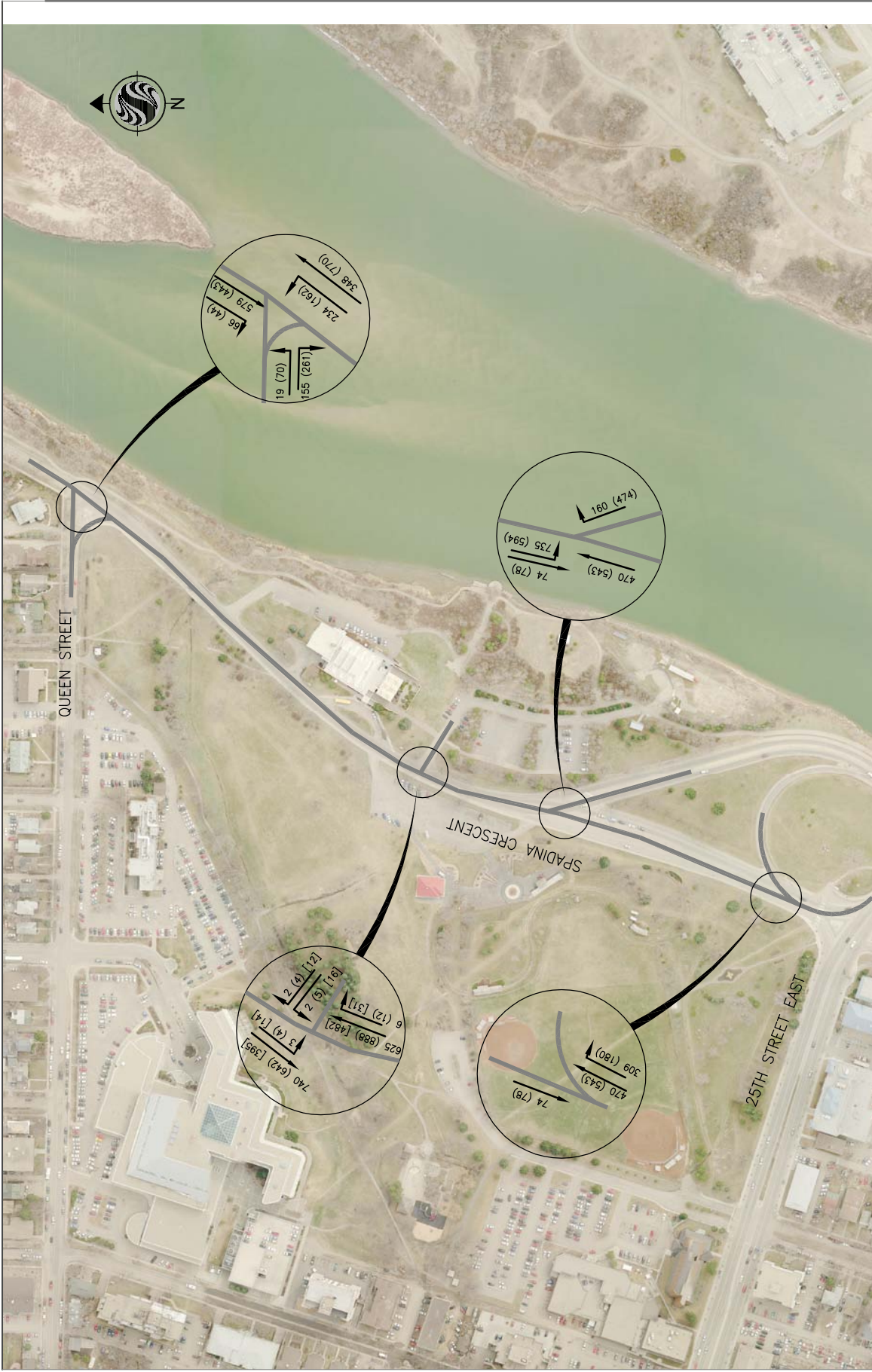
KINSMEN PARK TRAFFIC IMPACT STUDY

2.2 TRAFFIC VOLUMES

Turning movement counts (TMC) were collected by Stantec in September 2011 for the weekday morning (7:30 – 8:30 AM) and afternoon (4:30 – 5:30 PM) peak hours. Time periods for TMC were based on recent City of Saskatoon Average Daily Traffic (ADT) information for study area roadways. ADT data was used to ensure that peak hour traffic was accurately captured. Vehicle and pedestrian data was also collected on a Saturday (1:00 – 3:00 PM) at the intersection of Spadina Crescent / Mendel Art Gallery Access to capture operating conditions during typical park usage. The turning movement counts are shown on Figure 2.1 for the AM, PM, and Saturday peak hour time periods.

2.3 PEDESTRIAN VOLUMES

Pedestrian counts were also collected by Stantec in September 2011 for the same peak hour time periods as the turning movement counts. The pedestrian counts are shown on Figure 2.2.



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SPADINA CRESCENT

Figure No. **2.1**

Title **EXISTING TRAFFIC VOLUMES**

LEGEND

- XX (XX) — AM PEAK TRAFFIC FLOW
- (XX) — PM PEAK TRAFFIC FLOW
- [XX] — SATURDAY PEAK TRAFFIC FLOW

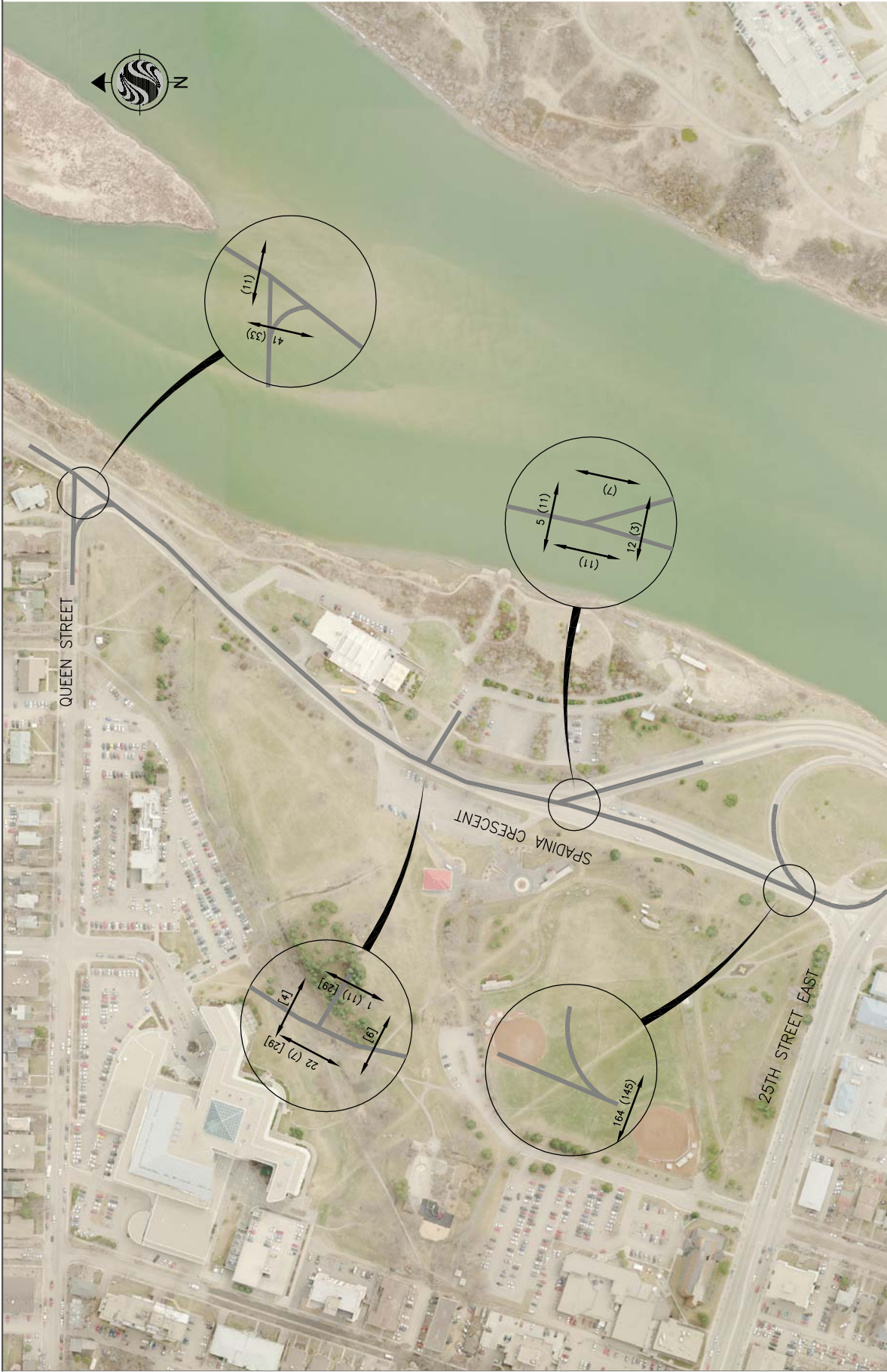
ORIGINAL SHEET — ANSI A

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APPENDIX 5: TRAFFIC STUDY



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SPADINA CRESCENT

Figure No.

2.2

Title

EXISTING PEDESTRIAN VOLUMES

LEGEND

XX (XX)

XX - AM PEAK PEDESTRIAN VOLUME

(XX) - PM PEAK PEDESTRIAN VOLUME

[XX] - SATURDAY PEAK PEDESTRIAN VOLUME

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3.0 Proposed Re-Development

The proposed re-development is situated on Spadina Crescent East from Queen Street to 25th Street East. The master plan includes re-developing Kinsmen Park, the Mendel Art Gallery, Shakespeare on Saskatchewan site, and the Shearwater Tours boat dock.

The proposed re-development will incorporate the following modifications:

- Additional on-street parking along Spadina Crescent within the study area;
- Potential addition of cyclist lanes;
- Modifications to existing parking areas;
- Revised intersection geometry near the Mendel Art Gallery;
- Revised intersection geometry at Spadina Crescent / Queen Street;
- Revised intersection geometry at Spadina Crescent / Spadina Crescent Ramp;
 - T-Intersection treatment;
 - Roundabout;

The above noted modifications are shown in Figures 3.1 and 3.2 respectively.



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SEPTEMBER 26, 2011
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KINSMEN PARK
SPADINA CRESCENT
Figure No. 3.1
Title SPADINA CRESCENT SCHEMATIC

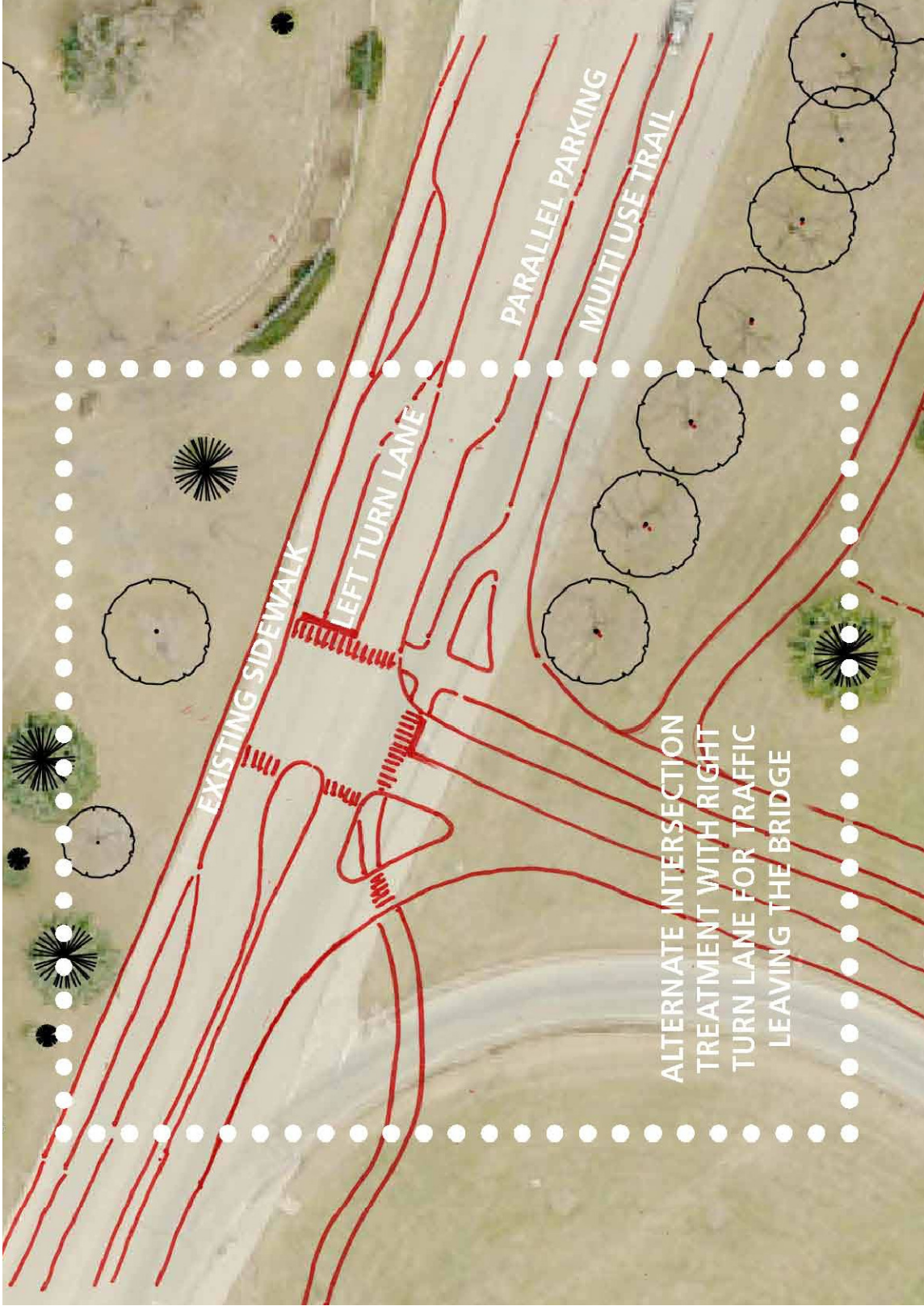
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SPADINA CRESCENT

Figure No.

3.2

Title

PROPOSED T INTERSECTION

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4.0 Traffic Analysis

4.1 ANALYSIS

The traffic operational measures of effectiveness (MOE’s) most applicable to this analysis are maximum queuing lengths and level of service (LOS). Maximum queue lengths represent the longest queue of vehicles that can be expected for a particular movement in a statistically significant number of occurrences of peak hour conditions. LOS is defined by ranges of average delay sustained by motorists traveling through an intersection. LOS A represents the lowest range of average delay and the best conditions while LOS F represents the highest range and represents a total breakdown of traffic operations. Typically, LOS ratings worse than D are not considered acceptable in the peak hours of traffic flow. Table 4.1 shows the ranges of delay associated with each LOS for stop controlled and signalized intersections.

Table 4.1
Ranges of Delay for Levels of Service

Level of Service	Delay per Vehicle (seconds)	
	Signalized Intersections	Stop Controlled Intersections
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	>20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

The intersections within the study area were analyzed using the computer programs SYNCHRO ver. 7.0 and SIDRA. SYNCHRO analyzes both signalized and unsignalized intersections in terms of LOS, delay and queues according to the methodology detailed in the 2000 edition of the HCM. It can be used to evaluate existing operations or to optimize traffic signal phase configurations, timing splits, and cycle lengths. The program also optimizes coordinated signal networks and their associated cycle offsets. For purposes of this study, SYNCHRO was used to analyze intersection operations under existing conditions.

SIDRA INTERSECTION is an advanced micro-analytical traffic evaluation tool that employs lane-by-lane and vehicle drive-cycle models coupled with an iterative approximation method to provide estimates of capacity and performance statistics (delay, queue length, stop rate, etc). Although SIDRA INTERSECTION is a single intersection analysis package, you can perform traffic signal analysis as an isolated intersection (default) or as a coordinated intersection by specifying platooned arrival data. SIDRA INTERSECTION traffic models can be calibrated for local conditions. SIDRA INTERSECTION provides various facilities for this purpose.

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In addition to the intersection/network analysis and optimizations, a traffic simulation program, SIMTRAFFIC, was used to validate roadway geometry and traffic control to ensure actual conditions were modeled as accurately as possible. It also provided a means for determining the suitability of various traffic control and geometric improvement alternatives. The primary benefit of traffic simulation is the identification of locations where significant queuing creates spillback that blocks adjacent lanes and/or affects upstream intersection operations. The HCM methodology does not include the potential for spillback in its intersection evaluations.

Traffic analysis was completed for the weekday morning and afternoon peak hours as well as a Saturday scenario was examined. These times were examined for existing conditions and long term treat including various intersection options for the Kinsmen Park corridor.

4.1.1 Existing Conditions

Traffic conditions were analyzed for the time period prior to development in order to establish a base condition against which future conditions could be compared to determine the impact of the proposed development.

The following intersections were analyzed:

- Spadina Crescent and Spadina Crescent Underpass (signalized)
- Spadina Crescent and Mendel Gallery Access (stop controlled in the WB direction)
- Spadina Crescent and Queen Street (signalized)

The traffic analysis results for existing conditions are shown in Tables 3.2, 3.3, and 3.4 for the weekday morning, afternoon, and Saturday peak periods respectively.

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Table 3.2
Existing Conditions Analysis Results - Weekday AM Peak Hour

Intersection	MOE	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Spadina Cres & Spadina Cres NB Ramp (signalized)	LOS	C	-	-	C	A	-	-	-	-	-	B	-
	Delay (sec)	34.1	-	-	28.1	4.7	-	-	-	-	-	13.5	-
	95 th Percentile Queue (m)	108.8	-	-	224.0	8.6	-	-	-	-	-	34.6	-
Spadina Cres & Mendel Access (WB Stop Control)	LOS	-	A	A	A	A	-	-	-	-	D	-	D
	Delay (sec)	-	0.0	0.0	0.1	0.1	-	-	-	-	25.0	-	25.0
	95 th Percentile Queue (m)	-	0.0	0.0	0.1	0.1	-	-	-	-	0.5	-	0.5
Spadina Cres & Queen St (signalized)	LOS	B	A	-	-	C	-	B	-	-	-	-	-
	Delay (sec)	10.0	5.3	-	-	24.3	-	10.3	-	-	-	-	-
	95 th Percentile Queue (m)	23.6	29.6	-	-	152.5	-	18.2	-	-	-	-	-

Table 3.3
Existing Conditions Analysis Results - Weekday PM Peak Hour

Intersection	MOE	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Spadina Cres & Spadina Cres NB Ramp (signalized)	LOS	-	D	-	-	C	A	-	-	-	-	C	-
	Delay (sec)	-	36.6	-	-	24.2	4.0	-	-	-	-	20.3	-
	95 th Percentile Queue (m)	-	132.9	-	-	146.8	7.9	-	-	-	-	106.5	-
Spadina Cres & Mendel Access (WB Stop Control)	LOS	-	A	A	A	A	-	-	-	-	D	-	D
	Delay (sec)	-	0.0	0.0	0.1	0.2	-	-	-	-	26.0	-	26.0
	95 th Percentile Queue (m)	-	0.0	0.0	0.2	0.2	-	-	-	-	1.3	-	1.3
Spadina Cres & Queen St (signalized)	LOS	A	B	-	-	B	-	B	-	-	-	-	-
	Delay (sec)	6.3	10.8	-	-	18.2	-	18.5	-	-	-	-	-
	95 th Percentile Queue (m)	17.5	121.8	-	-	102.6	-	36.7	-	-	-	-	-

Table 3.4
Existing Conditions Analysis Results - Saturday Peak Hour

Intersection	MOE	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Spadina Cres & Mendel Access (WB Stop Control)	LOS	-	A	A	A	A	-	-	-	-	C	-	C
	Delay (sec)	-	0.0	0.0	0.2	0.5	-	-	-	-	17.3	-	17.3
	95 th Percentile Queue (m)	-	0.0	0.0	0.4	0.4	-	-	-	-	2.3	-	2.3

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Spadina Crescent / Spadina Crescent NB Ramp

The results show that prior to the completion of corridor modifications the intersection of Spadina Crescent / Spadina Crescent NB Ramp will operate acceptably with the exception of the northbound through movement which operates at an LOS D in the PM Peak. All other movements operate acceptably during both peak periods. 95th percentile queue lengths for the intersection are in excess of 100 m during the PM peak, however, queue lengths remain within storage lengths.

Spadina Crescent / Mendel Art Gallery Access

Under existing conditions the intersection operates acceptably with the exception of the westbound left and right turn movements. These movements are currently under stop control and experience a LOS D. 95th percentile queue lengths are low for these movements which suggest that delays are experienced by a few number of vehicles. Operation during the Saturday peak improves as there is less through traffic along Spadina Crescent.

Spadina Crescent / Queen Street

Under existing conditions the intersection operates acceptably with all intersection movements operating at LOS C or better. 95th percentile queue along Spadina Crescent in both the AM and PM peaks is in excess of 100 m which would impact vehicles destined westbound on Queen Street.

4.1.2 Long-Term Treatment

Traffic analysis was completed for the long-term intersection treatments as proposed by Space 2 Place Landscape Architects and as discussed in Section 3.0 Including:

- Inclusion of on-street parking
- Revised intersection geometry near the Mendel Art Gallery;
- Revised intersection geometry at Spadina Crescent / Queen Street;
- Revised intersection geometry at Spadina Crescent / Spadina Crescent Ramp;
 - T-Intersection treatment;
 - Roundabout;

Traffic volumes under this scenario remain consistent with existing conditions as the study area is located in an established area with little projected traffic growth. In addition to traffic volumes, commuter cyclist volumes were incorporated into the analysis as there may be considerations to include upgraded cyclist facilities. To estimate the potential number of cyclists using the Spadina Corridor, Stantec Referenced the *City of Saskatoon Traffic Characteristics Report 2009*

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to assess average cyclist commuter traffic. The Study yielded an average of 2% cyclists as compared to total traffic. To maintain a conservative analysis, 3% of the total traffic was used to estimate the cyclist traffic incorporated into the analysis.

4.1.2.1 Proposed T-Intersection

An intersection signal warrant was completed for the proposed T-intersection. The results of the signal warrant indicated that if this intersection was to be implemented it would require signalization based on the existing traffic volumes alone. The signal warrant summary can be found in Appendix B.

Tables 3.5 and 3.6 present the Long-Term Treatment traffic analysis for the weekday morning and afternoon peak hours for the Spadina Crescent corridor including proposed T-intersection under stop control and signalization.

Table 3.5
Long – Term T-Intersection Analysis Results - Weekday AM Peak Hour

Intersection	MOE	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Spadina Cres & T-Intersection (unsignalized)	LOS	-	A	A	C	A	-	-	-	-	-	-	B
	Delay (sec)	-	0.0	0.0	18.5	0.0	-	-	-	-	-	-	15.0
	95 th Percentile Queue (m)	-	0.0	0.0	59.0	0.0	-	-	-	-	-	-	11.1
Spadina Cres & T-Intersection (Signalized)	LOS	-	D	A	E	A	-	-	-	-	-	-	A
	Delay (sec)	-	52.5	5.3	64.0	3.5	-	-	-	-	-	-	0.6
	95 th Percentile Queue (m)	-	141.5	18.2	203.6	6.5	-	-	-	-	-	-	0.0
Spadina Cres & Mendel Gallery Access(WB Stop Control)	LOS	-	A	A	A	A	-	-	-	-	D	-	D
	Delay (sec)	-	0.0	0.0	0.1	0.1	-	-	-	-	26.2	-	26.2
	95 th Percentile Queue (m)	-	0.0	0.0	0.1	0.1	-	-	-	-	1.2	-	1.2
Spadina Cres & Queen St (signalized)	LOS	B	A	-	-	C	-	B	-	-	-	-	-
	Delay (sec)	10.0	5.3	-	-	24.3	-	10.3	-	-	-	-	-
	95 th Percentile Queue (m)	23.6	29.6	-	-	152.5	-	18.2	-	-	-	-	-

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Table 3.6
Long – Term T-Intersection Analysis Results - Weekday PM Peak Hour

Intersection	MOE	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Spadina Cres & T-Intersection (unsignalized)	LOS	-	A	A	C	A	-	-	-	-	-	-	F
	Delay (sec)	-	0.0	0.0	15.4	0.0	-	-	-	-	-	-	162.4
	95 th Percentile Queue (m)	-	0.0	0.0	39.0	0.0	-	-	-	-	-	-	167.9
Spadina Cres & T-Intersection (signalized)	LOS	-	A	A	E	A	-	-	-	-	-	-	D
	Delay (sec)	-	4.0	0.6	58.3	2.4	-	-	-	-	-	-	36.1
	95 th Percentile Queue (m)	-	44.3	3.6	83.1	6.2	-	-	-	-	-	-	92.2
Spadina Cres & Mendel Gallery Access (WB Stop Control)	LOS	-	A	A	A	A	-	-	-	-	E	-	E
	Delay (sec)	-	0.0	0.0	0.1	0.2	-	-	-	-	35.1	-	35.1
	95 th Percentile Queue (m)	-	0.0	0.0	0.1	0.1	-	-	-	-	3.6	-	3.6
Spadina Cres & Queen St (signalized)	LOS	B	A	-	-	C	-	B	-	-	-	-	-
	Delay (sec)	10.0	5.3	-	-	24.3	-	10.3	-	-	-	-	-
	95 th Percentile Queue (m)	23.6	29.6	-	-	152.5	-	18.2	-	-	-	-	-

*Denotes approach LOS and Delay

Spadina Crescent T - Intersection

The results show that with the addition of the proposed T – Intersection, traffic operations will deteriorate under both unsignalized and signalized operation. In the unsignalized condition, the westbound movement experiences a LOS F with 95th percentile queue lengths in excess of 165 m. Under the signalized condition, the southbound left movement operates at a LOS E with 95th percentile queue lengths in excess of 200 m during the AM peak hour.

Spadina Crescent / Mendel Art Gallery Access

Under Long-Term conditions the intersection operates acceptably with the exception of the westbound left and right turn movements. These movements operate at an LOS D and E in the AM and PM peak periods respectively. 95th percentile queue lengths are low for these movements which suggest that delays are experienced by a few number of vehicles. Operation for these movements worsens slightly as more traffic is routed to the south parking lot under Long-Term conditions as the north parking lot will be decreased in size.

Spadina Crescent / Queen Street

Under the Long – Term modifications and maintaining existing signal timing the intersection operation is identical to the existing condition with all intersection movements operating at LOS

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C or better. 95th percentile queue along Spadina Crescent in both the AM and PM peaks is in excess of 100 m which would impact vehicles destined westbound on Queen Street.

4.1.2.2 Proposed Roundabout

The proposed ramp geometry outlined in Figure 3.1 shows the future connection of the expanded Mendel Art Gallery parking lot directly to the Spadina Crescent ramp. This intersection treatment is not recommended and was therefore not analyzed as part of this report. An alternate 4 leg roundabout was modeled and can be found in Appendix A if further consideration of this connection is required.

SIDRA INTERSECTION software was used to model and analyze the proposed roundabout intersection for the Long - Term treatment on Spadina Crescent. The main findings from the analysis are shown below in Figures 3.7 and 3.8, more detailed analysis results can be found in Appendix A.

Table 3.7
Long – Term Roundabout Analysis Results - Weekday AM Peak Hour

Intersection	MOE	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Spadina Cres & Round-About (unsignalized)	LOS	-	F	F	A	A	-	-	-	-	B	-	A
	Delay (sec)	-	93.1	94.3	8.9	3.1	-	-	-	-	11.4	-	6.8
	95 th Percentile Queue (m)	-	418.7	418.7	40.2	40.2	-	-	-	-	11.5	-	11.5

Table 3.8
Long – Term Roundabout Analysis Results - Weekday PM Peak Hour

Intersection	MOE	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Spadina Cres & Round-About (unsignalized)	LOS	-	C	C	A	A	-	-	-	-	B	-	B
	Delay (sec)	-	20.8	22.0	8.9	3.1	-	-	-	-	15.9	-	11.3
	95 th Percentile Queue (m)	-	117.2	117.2	26.6	26.6	-	-	-	-	49.7	-	49.7

The results show that the proposed roundabout will function over capacity with excessive delays and queue lengths. In order to resolve this issue a free flowing northbound right turn lane was added and analyzed. The results for the added turn lane are shown below in Tables 3.9 and 3.10.

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Table 3.9
Long – Term Roundabout Analysis Results - Weekday AM Peak Hour (Added Lane)

Intersection	MOE	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Spadina Cres & Round-About (unsignalized)	LOS	-	B	A	A	A	-	-	-	-	B	-	A
	Delay (sec)	-	14.1	3.8	8.9	3.1	-	-	-	-	11.6	-	6.9
	95 th Percentile Queue (m)	-	56.5	-	40.2	40.2	-	-	-	-	11.5	-	11.5

Table 3.9
Long – Term Roundabout Analysis Results - Weekday PM Peak Hour (Added Lane)

Intersection	MOE	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
Spadina Cres & Round-About (unsignalized)	LOS	-	B	A	A	A	-	-	-	-	B	-	B
	Delay (sec)	-	11.8	3.7	8.9	3.1	-	-	-	-	16.1	-	11.5
	95 th Percentile Queue (m)	-	60.0	-	32.5	32.5	-	-	-	-	58.1	-	58.1

As noted in the above results, the additional right turn lane is will improve roundabout operation to acceptable LOS, and 95th percentile queue lengths. The 95th percentile queue length in the northbound direction is 60 m. In order to accommodate this, the proposed placement of the roundabout intersection will need to be moved approximately 15 m to the north, thus allowing additional storage to prevent vehicles queuing on Spadina Crescent northbound to extend onto the University Bridge.

4.1.3 Pedestrian Signal Warrant

A pedestrian signal warrant was completed for the crosswalk at the intersection of Spadina Crescent and the Mendel Art Gallery parking access. The signal warrant showed that an actuated pedestrian signal for this crosswalk is not warranted based on the existing traffic and pedestrian volumes. Pedestrian observations at this location indicate that there is a large amount of pedestrian travel north-south along Spadina Crescent. However, very few pedestrians cross Spadina Crescent at this location. Pedestrians destined for Kinsmen Park may cross at the existing signal located at Spadina Crescent / Queen Street to avoid traffic. The warrant results can be found in Appendix C.

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5.0 Conclusions

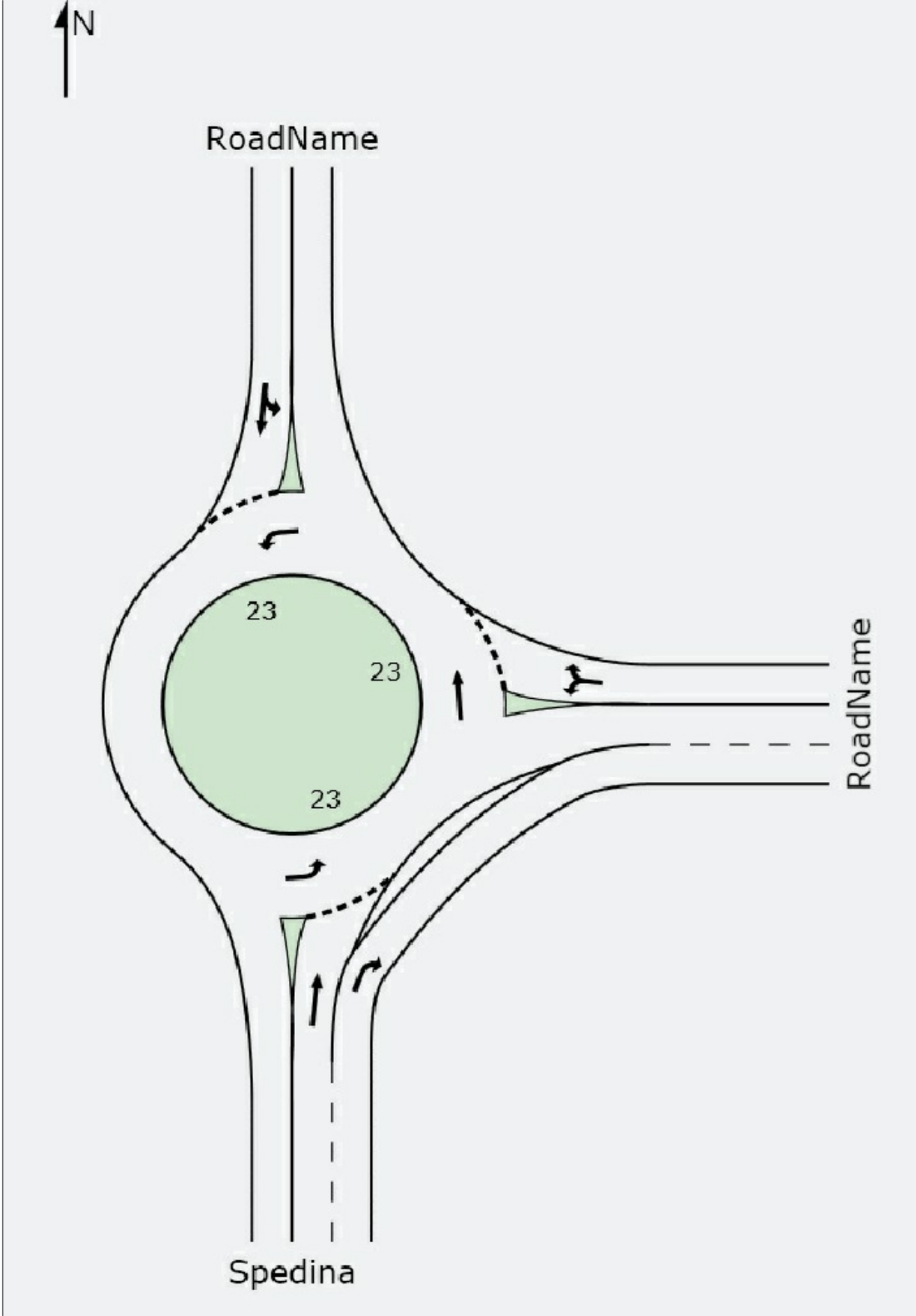
This traffic impact study has examined the existing and Long-Term traffic conditions of the proposed Spadina Crescent corridor as proposed by Space 2 Place Landscape Architects.

The following are the key findings of the study:

1. The modified roundabout intersection including the free flowing northbound right turn lane as shown in Figure 5.1 is recommended. It is also recommended that the roundabout be located a minimum of 75 m from the existing cross walk located adjacent to the University Bridge to ensure that vehicles on Spadina Crescent do not queue onto the Bridge.
2. If traffic volumes increase along Spadina Crescent in excess of 10% future roundabout operation will result in queues in excess of 70 m in the northbound direction which would result in spill back onto the University Bridge.
3. Cyclist activity on Spadina Crescent and through the proposed roundabout do not negatively affect future intersection operation.
4. Pedestrian actuated signals are not warranted at the Spadina Crescent / Mendel Art Gallery Access. Warrant analysis conducted for this area do not suggest the need for additional pedestrian facilities. Warrant analysis should be completed again in the future if pedestrian travel patterns change significantly.

It is recommended that additional analysis be undertaken as part of the detailed design phase or if there are significant changes to the proposed concepts provided by Space 2 Place Landscape Architects.

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 SPADINA CRESCENT
 Figure No. 5.1
 Title

REVISED ROUNDABOUT
 GEOMETRICS

ORIGINAL SHEET - ANSI A

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Appendix A – Roundabout Analysis

Unlicensed Trial Version

MOVEMENT SUMMARY - No R.T.L.

Site: Spedina AM

Spedina Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h	
South: Spedina												
2	T	511	2.0	1.043	87.3	LOS F	55.9	398.1	1.00	3.21	9.3	
3	R	325	2.0	1.043	88.4	LOS F	55.9	398.1	1.00	3.21	9.2	
Approach		836	2.0	1.043	87.7	LOS F	55.9	398.1	1.00	3.21	9.2	
East: RoadName												
4	L	1	2.0	0.197	11.5	LOS B	1.3	9.3	0.69	0.80	34.0	
6	R	168	2.0	0.197	6.8	LOS A	1.3	9.3	0.69	0.68	35.7	
Approach		169	2.0	0.197	6.8	LOS A	1.3	9.3	0.69	0.68	35.7	
North: RoadName												
7	L	774	2.0	0.487	8.9	LOS A	4.6	33.0	0.03	0.67	35.7	
8	T	80	2.0	0.487	3.1	LOS A	4.6	33.0	0.03	0.26	43.0	
Approach		854	2.0	0.487	8.4	LOS A	4.6	33.0	0.03	0.63	36.2	
All Vehicles		1859	2.0	1.043	43.9	LOS D	55.9	398.1	0.53	1.79	16.1	

Level of Service (LOS) Method: Delay (HCM 2000).
 Roundabout LOS Method: Same as Signalised Intersections.
 Vehicle movement LOS values are based on average delay per movement
 Intersection and Approach LOS values are based on average delay for all vehicle movements.
 Roundabout Capacity Model: SIDRA Standard.
 SIDRA Standard Delay Model used.

Unlicensed Trial Version

MOVEMENT SUMMARY - No R.T.L.

Site: Spedina PM

Spedina
Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Spedina											
2	T	572	2.0	0.856	20.8	LOS C	16.5	117.2	1.00	1.43	24.3
3	R	189	2.0	0.856	22.0	LOS C	16.5	117.2	1.00	1.43	24.2
Approach		761	2.0	0.856	21.1	LOS C	16.5	117.2	1.00	1.43	24.3
East: RoadName											
4	L	4	2.0	0.642	15.9	LOS B	7.0	49.7	0.95	1.03	30.2
6	R	499	2.0	0.642	11.3	LOS B	7.0	49.7	0.95	1.01	31.9
Approach		503	2.0	0.642	11.3	LOS B	7.0	49.7	0.95	1.01	31.9
North: RoadName											
7	L	627	2.0	0.410	8.9	LOS A	3.7	26.6	0.06	0.66	35.6
8	T	82	2.0	0.410	3.1	LOS A	3.7	26.6	0.06	0.26	42.4
Approach		709	2.0	0.410	8.2	LOS A	3.7	26.6	0.06	0.61	36.2
All Vehicles		1974	2.0	0.856	14.0	LOS B	16.5	117.2	0.65	1.03	29.8

Level of Service (LOS) Method: Delay (HCM 2000).
 Roundabout LOS Method: Same as Signalised Intersections.
 Vehicle movement LOS values are based on average delay per movement
 Intersection and Approach LOS values are based on average delay for all vehicle movements.
 Roundabout Capacity Model: SIDRA Standard.
 SIDRA Standard Delay Model used.



Added Cyclists

Unlicensed Trial Version

MOVEMENT SUMMARY - With R.T.L.

Site: Spedina AM with n to e rtco

Spedina
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h	
South: Spedina												
2	T	511	2.0	0.640	14.1	LOS B	6.9	48.9	0.90	1.11	29.3	
3	R	325	2.0	0.178	3.8	X	X	X	X	0.39	42.1	
Approach		836	2.0	0.640	10.1	LOS B	6.9	48.9	0.55	0.83	33.2	
East: RoadName												
4	L	1	2.0	0.198	11.6	LOS B	1.3	9.3	0.69	0.81	33.8	
6	R	168	2.0	0.198	7.0	LOS A	1.3	9.3	0.69	0.69	35.7	
Approach		169	2.0	0.198	7.0	LOS A	1.3	9.3	0.69	0.69	35.7	
North: RoadName												
7	L	779	2.0	0.490	8.9	LOS A	4.7	33.4	0.03	0.67	35.7	
8	T	80	2.0	0.490	3.1	LOS A	4.7	33.4	0.03	0.26	43.0	
Approach		859	2.0	0.490	8.4	LOS A	4.7	33.4	0.03	0.63	36.2	
All Vehicles		1864	2.0	0.640	9.0	LOS A	6.9	48.9	0.32	0.73	34.9	

X: Not applicable for Continuous movement.

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model used.

APPENDIX 5: TRAFFIC STUDY

Added Cyclists

Unlicensed Trial Version

MOVEMENT SUMMARY - With R.T.L.

Site: Spedina PM with n to e rtco

Spedina
Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Spedina											
2	T	588	2.0	0.661	11.7	LOS B	7.2	51.3	0.86	1.02	31.5
3	R	189	2.0	0.103	3.7	X	X	X	X	0.39	42.1
Approach		778	2.0	0.661	9.8	LOS A	7.2	51.3	0.65	0.87	33.6
East: RoadName											
4	L	4	2.0	0.638	16.1	LOS B	6.8	48.7	0.94	1.04	30.0
6	R	499	2.0	0.638	11.5	LOS B	6.8	48.7	0.94	1.01	31.7
Approach		503	2.0	0.638	11.5	LOS B	6.8	48.7	0.94	1.01	31.7
North: RoadName											
7	L	625	2.0	0.410	8.9	LOS A	3.7	26.5	0.06	0.66	35.6
8	T	84	2.0	0.410	3.1	LOS A	3.7	26.5	0.06	0.26	42.4
Approach		709	2.0	0.410	8.2	LOS A	3.7	26.5	0.06	0.61	36.2
All Vehicles		1991	2.0	0.661	9.7	LOS A	7.2	51.3	0.52	0.81	34.0

X: Not applicable for Continuous movement.

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model used.

Unlicensed Trial Version

MOVEMENT SUMMARY - With R.T.L

Site: Spedina PM with n to e rtco

Spedina
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h	
South: Spedina												
2	T	572	2.0	0.659	11.8	LOS B	8.4	60.0	0.86	1.02	31.4	
3	R	189	2.0	0.103	3.7	X	X	X	X	0.39	42.1	
Approach		761	2.0	0.659	9.8	LOS A	8.4	60.0	0.65	0.87	33.5	
East: RoadName												
4	L	4	2.0	0.602	16.1	LOS B	8.2	58.1	0.93	1.04	30.0	
6	R	499	2.0	0.641	11.5	LOS B	8.2	58.1	0.93	1.01	31.7	
Approach		503	2.0	0.641	11.5	LOS B	8.2	58.1	0.93	1.01	31.7	
North: RoadName												
7	L	625	2.0	0.412	8.9	LOS A	4.6	32.5	0.06	0.66	35.6	
8	T	82	2.0	0.413	3.1	LOS A	4.6	32.5	0.06	0.26	42.4	
Approach		707	2.0	0.412	8.2	LOS A	4.6	32.5	0.06	0.61	36.2	
All Vehicles		1972	2.0	0.659	9.7	LOS A	8.4	60.0	0.51	0.81	34.0	

X: Not applicable for Continuous movement.

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model used.

APPENDIX 5: TRAFFIC STUDY

Unlicensed Trial Version

MOVEMENT SUMMARY - With R.T.L

Site: Spedina AM with n to e rctc

Spedina
Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Spedina											
2	T	495	2.0	0.634	14.1	LOS B	7.9	56.5	0.89	1.10	29.3
3	R	325	2.0	0.178	3.8	X	X	X	X	0.39	42.1
Approach		820	2.0	0.634	10.0	LOS A	7.9	56.5	0.54	0.82	33.3
East: RoadName											
4	L	1	2.0	0.211	11.6	LOS B	1.6	11.5	0.68	0.81	33.8
6	R	168	2.0	0.200	6.9	LOS A	1.6	11.5	0.68	0.68	35.7
Approach		169	2.0	0.199	7.0	LOS A	1.6	11.5	0.68	0.68	35.7
North: RoadName											
7	L	774	2.0	0.490	8.9	LOS A	5.6	40.2	0.03	0.67	35.7
8	T	78	2.0	0.490	3.1	LOS A	5.6	40.2	0.03	0.26	43.0
Approach		852	2.0	0.490	8.4	LOS A	5.6	40.2	0.03	0.63	36.2
All Vehicles		1841	2.0	0.634	9.0	LOS A	7.9	56.5	0.32	0.72	34.9

X: Not applicable for Continuous movement.

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model used.

Processed: Friday, September 16, 2011 9:09:45 AM
 SIDRA INTERSECTION 5.1.6.2039
 Project: C:\Users\elangevin\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\JV03RRSI\Spedina (2).sip
 UNLICENSED TRIAL VERSION

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SIDRA
INTERSECTION

Unlicensed Trial Version
MOVEMENT SUMMARY

Site: 4 legged RBT Option AM

\$ legged option
 Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h	
South: Spedina												
1	L	495	2.0	0.701	22.6	LOS C	10.0	71.1	0.97	1.24	20.2	
2	T	5	2.0	0.658	16.8	LOS B	10.0	71.1	0.97	1.22	20.1	
3	R	325	2.0	0.178	3.7	X	X	X	X	0.39	38.7	
Approach		825	2.0	0.701	15.2	LOS B	10.0	71.1	0.59	0.90	24.3	
East: Ramp												
4	L	4	2.0	0.222	11.7	LOS B	1.8	13.0	0.71	0.86	30.1	
5	T	168	2.0	0.220	5.9	LOS A	1.8	13.0	0.71	0.64	31.5	
6	R	11	2.0	0.219	7.0	LOS A	1.8	13.0	0.71	0.71	31.6	
Approach		183	2.0	0.220	6.1	LOS A	1.8	13.0	0.71	0.65	31.5	
North: Parking lot access												
7	L	16	2.0	0.065	12.5	LOS B	0.5	3.6	0.73	0.79	28.6	
8	T	26	2.0	0.065	6.7	LOS A	0.5	3.6	0.73	0.64	30.4	
9	R	5	2.0	0.065	7.8	LOS A	0.5	3.6	0.73	0.67	30.6	
Approach		47	2.0	0.065	8.8	LOS A	0.5	3.6	0.73	0.69	29.7	
West: Spedina												
10	L	5	2.0	0.585	9.2	LOS A	6.8	48.2	0.30	0.80	31.6	
11	T	774	2.0	0.557	3.4	LOS A	6.8	48.2	0.30	0.34	36.1	
12	R	78	2.0	0.556	4.5	LOS A	6.8	48.2	0.30	0.45	34.8	
Approach		857	2.0	0.558	3.5	LOS A	6.8	48.2	0.30	0.36	36.0	
All Vehicles		1913	2.0	0.701	8.9	LOS A	10.0	71.1	0.47	0.63	29.0	

X: Not applicable for Continuous movement.

Level of Service (LOS) Method: Delay (HCM 2000).
 Roundabout LOS Method: Same as Signalised Intersections.
 Vehicle movement LOS values are based on average delay per movement
 Intersection and Approach LOS values are based on average delay for all vehicle movements.
 Roundabout Capacity Model: SIDRA Standard.
 SIDRA Standard Delay Model used.

APPENDIX 5: TRAFFIC STUDY

Unlicensed Trial Version MOVEMENT SUMMARY

Site: 4 legged RBT Option PM

4 legged option
Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Spedina											
1	L	572	2.0	0.702	19.2	LOS B	9.9	70.5	0.93	1.14	22.2
2	T	5	2.0	0.752	13.4	LOS B	9.9	70.5	0.93	1.11	22.5
3	R	189	2.0	0.103	3.7	X	X	X	X	0.39	38.7
Approach		766	2.0	0.702	15.4	LOS B	9.9	70.5	0.70	0.95	24.4
East: Ramp											
4	L	4	2.0	0.702	16.9	LOS B	8.9	63.7	0.96	1.07	25.5
5	T	499	2.0	0.668	11.1	LOS B	8.9	63.7	0.96	1.05	26.7
6	R	11	2.0	0.658	12.3	LOS B	8.9	63.7	0.96	1.05	26.5
Approach		514	2.0	0.668	11.2	LOS B	8.9	63.7	0.96	1.05	26.7
North: Parking lot access											
7	L	16	2.0	0.100	17.8	LOS B	0.9	6.1	0.90	0.86	24.0
8	T	26	2.0	0.100	12.0	LOS B	0.9	6.1	0.90	0.81	24.9
9	R	5	2.0	0.099	13.1	LOS B	0.9	6.1	0.90	0.82	24.7
Approach		47	2.0	0.100	14.1	LOS B	0.9	6.1	0.90	0.83	24.6
West: Spedina											
10	L	5	2.0	0.478	9.2	LOS A	5.2	37.0	0.27	0.81	31.6
11	T	625	2.0	0.469	3.3	LOS A	5.2	37.0	0.27	0.34	36.4
12	R	82	2.0	0.469	4.5	LOS A	5.2	37.0	0.27	0.45	35.0
Approach		713	2.0	0.469	3.5	LOS A	5.2	37.0	0.27	0.36	36.2
All Vehicles		2040	2.0	0.702	10.1	LOS B	9.9	70.5	0.62	0.77	28.0

X: Not applicable for Continuous movement.

Level of Service (LOS) Method: Delay (HCM 2000).

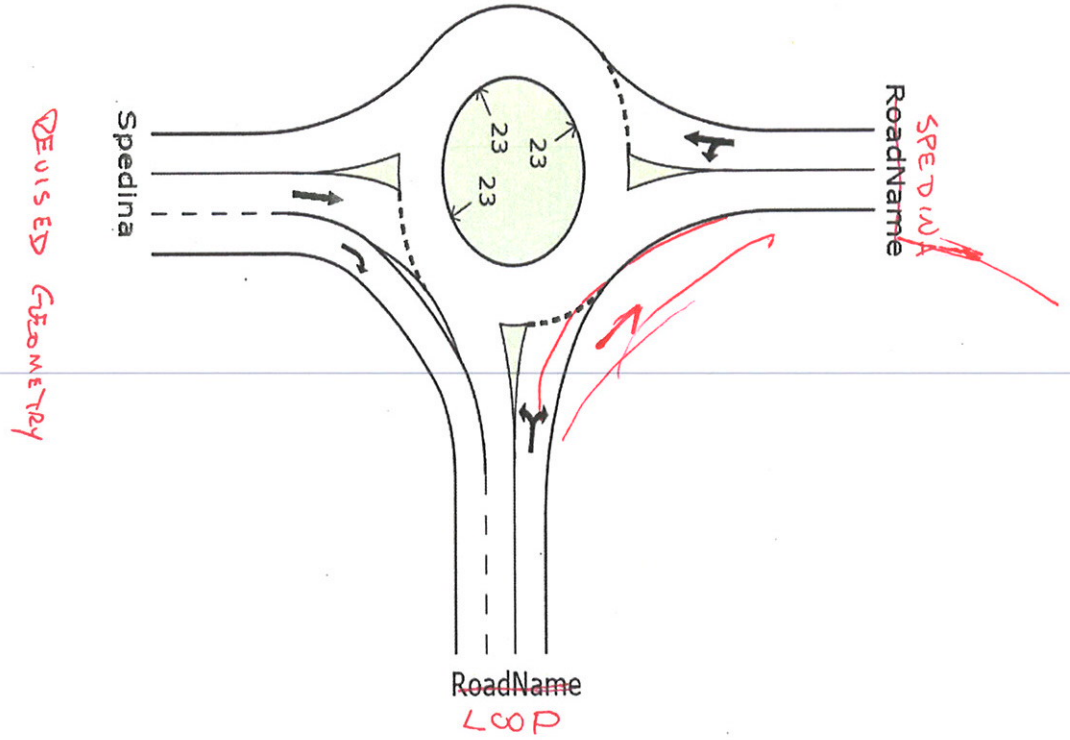
Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

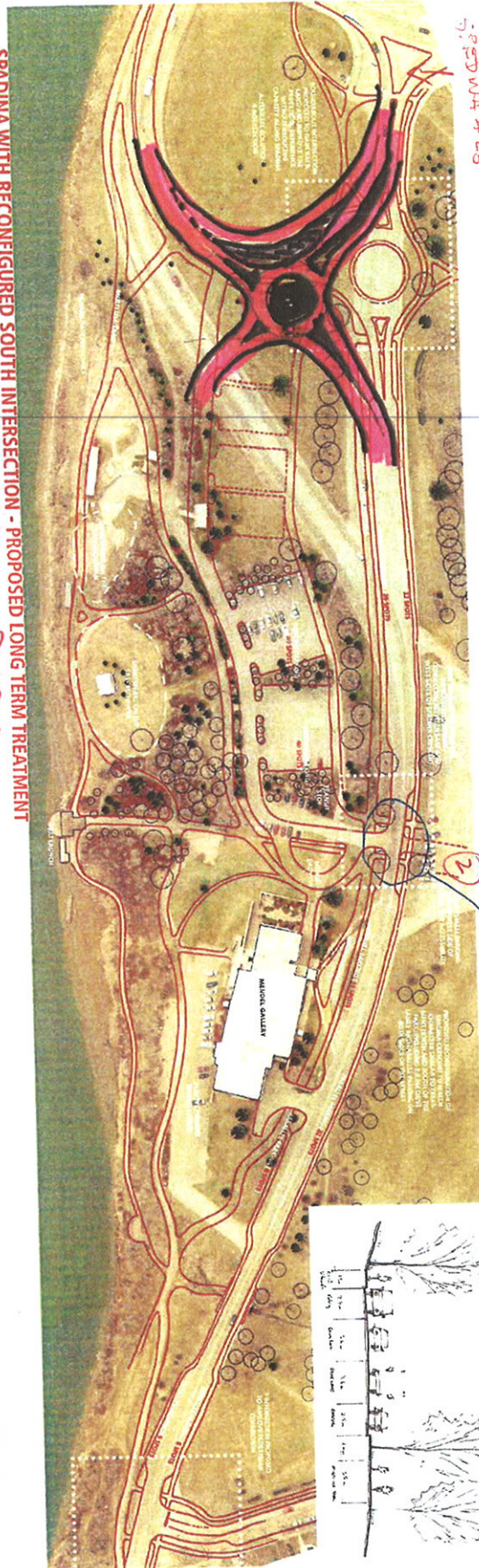
SIDRA Standard Delay Model used.



SPADINA - PROPOSED NEAR TERM TREATMENT

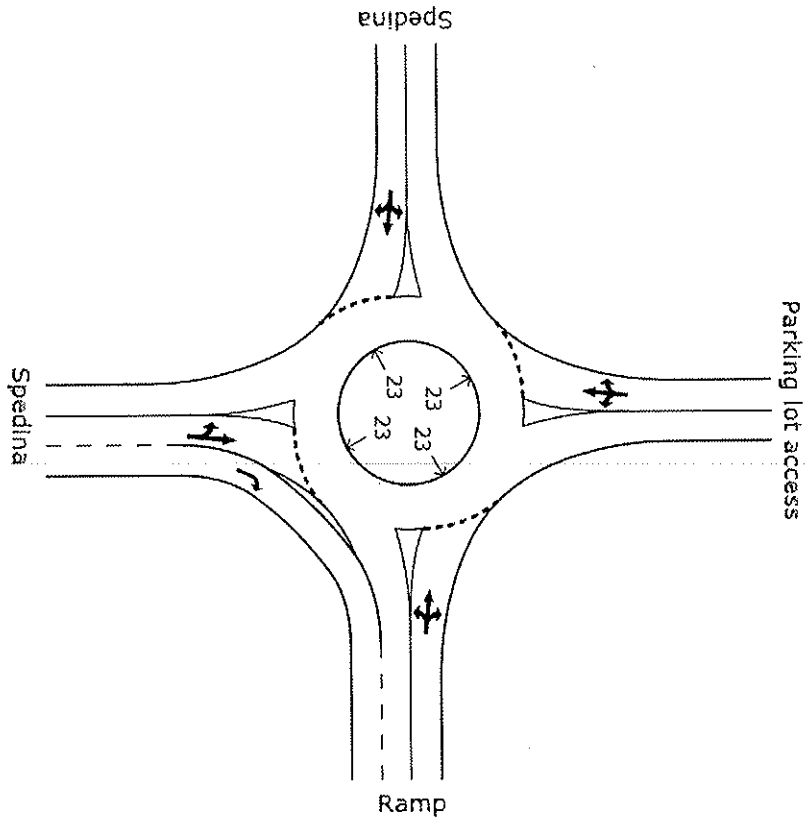


SPADINA WITH RECONFIGURED SOUTH INTERSECTION - PROPOSED LONG TERM TREATMENT
DEVELOPED BY OPTION 2



5: PSD W/A 4 25

Red / traffic counts.



DEVIATED GEOMETRY

Stantec
KINSMEN PARK
TRAFFIC IMPACT STUDY

Appendix B – Intersection Signal Warrants



Canadian Traffic Signal Warrant Analysis

Main Street
Side Street

Spadina Crescent Underpass	
(#)	1
(#)	1
(#)	1
(#)	1
(#)	1
(km/h)	50
(%)	2.0%
(m)	0.0

Date: September 26, 2011
City: Saskatoon, Saskatchewan

(m)	175
(y/n)	n
(y/n)	n
(y/n)	n
(#)	240,000
(y/n)	n
(%)	2.0%
(y/n)	n
(y/n)	n

Cs =	0.900 (Int SpacingFactor)
Cnt =	1.000 (MainStTruckFactor)
Cv =	1.000 (SpeedFactor)
Cp =	1.100 (PopDemoFactor)
Csb =	1.000 (SideStBusFactor)
Cst =	1.000 (SideStTruckFactor)
Vm =	755 (MainSHighest)
Vm2 =	1.497 (MainSVeh-Pe#)
Cbt =	1.000 (maximum of Csb,Cst)

	MSLTL	MSLTH	MSLRT	MSLTL	MSLTH	MSLRT	MSLTL	MSLTH	MSLRT	MSLTL	MSLTH	MSLRT	PedC1	PedC2
7:00 - 8:00	740	74	0	0	471	311	0	0	0	0	0	167		
8:00 - 9:00	596	78	0	0	543	180	0	0	0	0	4	474	0	0
11:00 - 12:00	668	76	0	0	507	246	0	0	0	2	0	321	0	0
12:00 - 13:00														
16:00 - 17:00														
17:00 - 18:00														
Average														

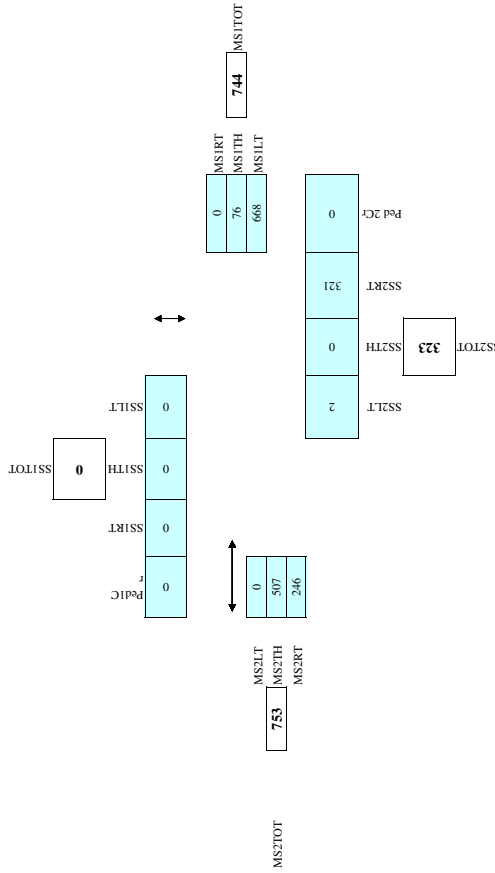
*** Enter the hourly turning movement counts averaged over the peak six hours of a typical week day

*** Enter the peak pedestrian volume crossing the main street averaged over the same hours

$$W = [C1 \times Cbt(Vm1 \times Ys) / K1 + (F(Vm2 \times Pc) / K2)] \times Cvp$$

W = 341 341 0
Veh Ped

Warranted



Roadway, Vehicle and Pedestrian Factors	Range	
	Min	Max
Cs = (Int SpacingFactor)	0.90	<200 m
Cnt = (MainStTruckFactor)	1.00	<5%
Cv = (SpeedFactor)	1.00	<60 km/h
Cp = (PopDemoFactor)	1.00	<250,000
Csb = (SideStBusFactor)	1.00	<10%
Cst = (SideStTruckFactor)	1.00	<10%
F = (Ped DemoFactor)	1.20	
(max of)	1.10	
	1.10	
	1.10	

Explanation of Factors:

- Cbt = 1.05 if the side street either is a bus route, or has more than 10% trucks, otherwise = 1.00. (it is assumed that these two factors only affect the side street vehicles trying to cross the main street, not the pedestrians)
- C1 = the product of the other 4 geographic factors
- Cs = intersection spacing. Cnt = main street truck, Cv = Speed, Cp = Population
- Vm1 = the main street volume - either the total of the two approaches, or the highest single approach (if the median is >= 10.0 metres) (averaged over 6 peak hours)
- Vm2 = the main street volume - either the total of the two approaches, or the highest single approach (if the median is >= 6.0 metres) (averaged over 6 peak hours)
- Vs = the highest side street approach volume (averaged over 6 peak hours)
- F = Pedestrian demographic factor - the maximum of the 3 individual pedestrian demographic factors *** note: it has been determined that Vs must be > 75 for signals to be considered ***
- Pc = the total pedestrian volume crossing the mainstreet (averaged over 6 peak hours)
- L = number of lanes that the pedestrians have to cross (only half the street if the median is >= 5.0 metres)
- Kv = Vehicle - Vehicle denominator constant (Kv = 1,100 if L <= 3, Kv = 1,400 if L > 3)
- Kp = Vehicle - Pedestrian denominator constant (Kp = 2,000 if L <= 3, Kp = 5,000 if L > 3)

Stantec
KINSMEN PARK
TRAFFIC IMPACT STUDY

Appendix C – Pedestrian Signal Warrants

KINSMEN PARK MASTER PLAN REPORT: APPENDICES

RESULTS SUMMARY

DO NOT ENTER DATA INTO THIS PAGE

Prepared By: Eric Langevin Date: Tuesday, April 19, 2011

Location & Roadway Classification: Spadina Crescent and Mendel Access

Date of Count: Day of wk: Saturday Mth, Day, Yr: Saturday, September 03, 2011

Weather: Sunny / Warm

Traffic Control Devices: Stop W

Current Pedestrian Control: PC

Other Notes: Kinsmen Park

Number of travel lanes passing through the crosswalk(s) 2 lanes

Is there a physical median in this crosswalk(s)? n (y or n)

Speed limit (for 85th percentile speed) 50 km/h
 85th percentile (check one) (school zone - 30 kph during school hours)
 Posted Limit

Distance to nearest protected crosswalk 300 m
 Location: Queen St
 Type: Standard (w/ traffic calming)

Is the orientation of this crosswalk(s) N-S? n (y or n)

Duration of pedestrian count 2 hrs

Elementary: _____ Total Warranted PC Points: _____ or _____ / period
 High School: _____ Highest PC point value: 1,791 at _____
 Adult: 24 Active Ped Corridor Points: _____
 Senior: _____ Pedestrian Actuated Signal Points: 40
 Vehicles passing through crosswalk(s): 1,688

**ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED
 PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED**

**Install device at the North Crosswalk **

(Note: Standard and Zebra crosswalks can be installed on both sides if pedestrian volumes are approximately equal.)

Time	Vehicle Counts				Pedestrian Counts							
	SB	WB	NB	EB	North Crosswalk			Senior / Impaired	Senior / Impaired	South Crosswalk		
					Child	Teen	Adult			Adult	Teen	Child
7:00												
7:15												
7:30												
7:45												
8:00												
8:15												
8:30												
8:45												
9:00												
9:15												
9:30												
9:45												
AM Totals												
11:30												
11:45												
12:00												
12:15												
12:30												
12:45												
13:00	91		101									
13:15	106		100				9					
Noon Totals	197		201									
14:00	95	1	102							5		
14:15	100	4	107									
14:30	112	1	131				4					
14:45	91	2	108							2		
15:00	107	5	135							4		
15:15	83	2	104									
15:30												
15:45												
16:00												
16:15												
16:30												
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19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
PM Totals	588	15	687							11		
Totals	785	15	888				13			11		
							North Crosswalk =	13				
									South Crosswalk =	11		

A6 PUBLIC ART STRATEGY

Appendix 6 includes an overview of the existing art context, examples of successful public art strategies and projects, and suggestions and recommendations for approaching public art initiatives in Kinsmen Park.

KINSMEN PARK & AREA PUBLIC ART STRATEGY

DATE 16 November 2011
PROJECT OWNER City of Saskatoon
PROJECT ADDRESS Kinsmen Park
945 Spadina Cres. East
Saskatoon, SK

PREPARED FOR Space2Place Design Inc. Landscape Architects
as part of the Kinsmen Park & Area Master Plan

PREPARED BY Maureen Smith
id ā Public Art Consulting
T 604 731 3879 E id_a.maureen@telus.net



PHOTO: Damien Gabrielson



Figure 1 CHILD'S PLAY by Robert Iveson & Tommie Gallie,, Painted Steel, 1982, Kinsmen Park, Saskatoon. Photo by Damien Gabrielson.

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Figure 2 Harvest dusk near Somme, Saskatchewan. Photo by Damien Gabrielson.

PREFACE

“ ”

The drama of this landscape is in the sky, pouring with light and always moving. The earth is passive. And yet the beauty I am struck by, both as present fact and as revived memory, is a fusion: this sky would not be so spectacular without this earth to change and glow and darken under it. And whatever the sky may do, however the earth is shaken or darkened, the Euclidean perfection abides. The very scale, the hugeness of simple forms, emphasizes stability. It is not hills and mountains which we should call eternal. Nature abhors an elevation as much as it abhors a vacuum; a hill is no sooner elevated than the forces of erosion begin tearing it down. These prairies are quiescent, close to static; looked at for any length of time, they begin to impose their awful perfection on the observer's mind. Eternity is a peneplain.¹

Wallace Stegner, *Wolf Willow*

I would like to take this opportunity to say what a pleasure it has been to work on this project and be given the opportunity to get to know Saskatoon and the province of Saskatchewan—the places and the people—better than I did before. Having been born and raised, and lived most of my life in British Columbia, a place of a decidedly different landscape, the Canadian Prairies have always been more of a place of imagination for me. A place met first in the literature of W.O. Mitchell, Guy Vanderhaeghe, Rudy Wiebe and now Wallace Stegner (thanks to a reference to his work, *Wolf Willow*, by John O'Brian in the catalogue introduction for the Mendel Art Gallery's exhibition *The Flat Side of the Landscape The Emma Lake Artists' Workshops*, which I came upon while doing research for this project) and a place experienced ethereally through the music of Joni Mitchell and k.d. lang.

I have learned to not do that thing, when there is a central defining feature of a place—in this case the flatness of the land—and believe that all the places (including topographies), ecologies, cultures and people within that landscape are the same. I know a little of Alberta and Manitoba, and can see threads of similarities, but mostly I sense the differences in the cultures of those places in comparison to Saskatchewan. When the impact of the vastness begins to settle, there is a nuanced noticing that comes with being in a wide open space. The relationship that develops between oneself and that kind

of space is a specific one. Within this relationship, the other objects on the plain—whether natural or crafted together by humans—take on a certain significance. Do these objects begin to set up a mediation to the vastness? Does that relationship inform the collecting and drawing in of materials for living, and the labour and skill in crafting objects which begin to set up a smaller-scaled world that mediates the vast plain?

The history of the hard work of living in this place—whether it be the traditional nomadic way-of-life of the Cree and other First Nations who have lived here for millennia or the homesteading way-of-life of the Europeans who came to this place and carved out an existence for themselves—is present. The recentness of these histories is very much felt here and was raised more than once in conversations I had with the people I met in Saskatoon.

What did feel familiar to me in Saskatoon was the sense of 'westernness' there, and with that—in the larger realm of Canada—the 'youngness' of the western city. My time in Saskatoon this past June came just days after my own young city of Vancouver had yet *another* one of its tantrums at losing the final game of the Stanley Cup championship. In Saskatoon, I found a different kind of 'youngness'—one that is quite civically-minded where efforts to build and improve the city are contributed by a wide diversity of organizations and people of all ages.



Figure 3 Part of the Meewasin Valley Authority's trail system in Kinsmen Park, Saskatoon. Photo by Damien Gabrielson.

EXECUTIVE SUMMARY

Public art programs for major urban parks are often developed in order to establish a particular park as a cultural destination within a city. With the Mendel Art Gallery having been located in Kinsmen Park for 45 years, this kind of identity and association already exists for the park within the experiences of the citizens of Saskatoon. Throughout 2010 alone, the Mendel Art Gallery drew over 180,000 visits to the park in attendance at the gallery's in-house exhibitions, tours, lectures.² Through the development of an on-going program of temporary and permanent public art for Kinsmen Park, this public art strategy proposes to build on the foundation of that identity for the park and to expand it.

Within the North American contemporary art world of both the last century and today, Saskatoon is a place that has not only a significant legacy, but also a very exciting and vibrant community of younger artists who are—like several of their predecessors did—making work that is attracting the attention of curators and galleries far beyond the borders of Saskatchewan. This public art strategy proposes to create a public art program for Kinsmen Park that showcases the work of this exciting community of artists in support of the Master Plan's primary vision to attract, captivate and delight park users from 1 to 100.

After providing an overview of the larger Master Plan project and the existing public art in and around Kinsmen Park, this report provides a foundation of research into public art programs developed for urban parks and also profiles specific public artworks commissioned for various urban parks and regional open spaces. The programs offer examples of programming, administrative, financial and curatorial structures that are informative for consideration in this public art strategy. The profiles of specific artworks show examples of contemporary public artworks in park spaces which have captivated and delighted a wide diversity of park users.

Much can be learned from the experience of the Toronto Sculpture Garden which, through 30 years of programming a small urban park space with public art projects, has cultivated an educated audience as

the public has repeatedly encountered and engaged with artists while they install their work in the park. The same is true for Public Art Fund's *Target Art in the Park* program which developed a series of art exhibitions for Madison Square Park in New York City over a three year period while the park was under-going a major revitalization process. In this case, public art played a key role in an overall strategy to change the park from a site of neglect and criminal activity into a cultural destination within New York City. The program was eventually formalized into an on-going program of changing artworks for the park now known as Madison Square Art.

The profile of Jessica Stockholder's *Flooded Chambers Maid* for Madison Square Park in 2009 shows an artwork by a major contemporary artist. What is significant about the success of this public artwork is that although it is one of the first public realm commissions taken on by Stockholder, it retains a strong connection to her art practice and gallery work. Also, while being able to sustain a more critical level of scrutiny as a contemporary artwork, the piece also happens to completely delight and fully engage members of the public and especially—of particular significance to the focus for Kinsmen Park—children.

This strategy proposes a vision and set of objectives along with a set of strategic guiding principles for the development of a public art program for Kinsmen Park. Also, specific suggestions for approaches to several art projects are offered for consideration and as a starting point for the next level of discussion.

This report also contains a layer of information in the form of quotes from media reviews of public art projects, interviews with artists and published sources which are engaged in a more academic conversation about art in the public realm.

Kinsmen Park has the potential to offer artists many interesting issues, sites and audiences with which to engage as they expand their art practices to consider this rich crossroads of culture, play and ecology within the city of Saskatoon.



Figure 4 The ball diamond in Kinsmen Park, Saskatoon. Photo by Damien Gabrielson.

INTRODUCTION

“ ”

*Public art is about the free field—the play—of creative vision. The point is not just to produce another thing for people to admire, but to create an opportunity—a situation—that enables viewers to look back at the world with renewed perspectives and clear angles of vision. This image embraces the instrumentality, intimacy, and criticality of public art. Public life cannot be decreed; it has to be constantly reinvented.*³

Patricia C. Phillips *Mapping the Terrain: New Genre Public Art*

Along with all of the typical things and experiences one expects to find in an urban park—the respite from the hard surfaces of the city and the chance to connect with nature; the pathways along which we can stroll, power walk, jog or cross-country ski; the handy benches which offer an opportunity to sit and rest; the open grassy areas in which to relax and take in some sunshine or have a picnic; the ability to sit contemplatively and perhaps contentedly under a tree; the opportunities for children to play and invent and imagine—what might the addition of a program of public art bring to this space and these experiences?

An answer to this question may be found in a public art symposium paper by Pam Korza from 1990 titled *Evaluating Artistic Quality in the Public Realm*. In this article, Korza quotes Patricia C. Phillips as saying, “Public art can be more than amenity, entertainment, or ornamentation. It can be a very energetic investigation. Public art is not a discipline or profession. It is an idea and way of thinking about art. What makes it public is that it is situated at the congested crossroads of aesthetics, public life, cultural ideas and political issues. It is an art which is absolutely engaged with the world and this engagement often invokes spirited disagreement . . . Absolute consensus is not necessarily a happy state. A public art that ex-

cites the imaginative potential of many unique individuals in a variety of different ways, is, albeit, a little bit unruly. But a less cautious, less constrained strategy may lead to the best in public art, as it has in all art.”⁴

This document offers a foundation of researched precedent studies, strategic guidelines and specific project suggestions for the development of an innovative public art program that will offer artists the opportunity to interact with the various physical and imagined spaces of Kinsmen Park. These artworks will add layers of experience, meaning, engagement and interpretation to the park that are not there now, or not seen or consciously experienced now.

What follows provides an overview of the master plan project, describes the current public art context of Kinsmen Park and the surrounding area, briefly touches on the contemporary art community in Saskatoon (both historical and current day), provides an in-depth review of several public art programs related to urban parks and regional open spaces, describes several public art projects in urban parks, proposes a vision, set of objectives and guiding principles for the public art program in the park and suggests several specific public art opportunities and concludes with a summary of recommendations.



Figure 5 Pine trees in Kinsmen Park in winter. Photo by Damien Gabrielson.

PUBLIC ART CONTEXT

PUBLIC ART IN KINSMEN PARK AND AREA

There are three public art projects inside the Kinsmen Park boundaries which belong to the City of Saskatoon's permanent collection. They are the memorial to soccer players who were killed in World War I titled *Sergeant Hugh Cairns V.C.* by an unknown artist in Italy, *Child's Play* by Robert Iveson and Tommie Gallie and *Five Altar Pieces* by Bill Epp. Two other public art projects are in the immediate vicinity of Kinsmen Park and are part of the streetscape of 25th Street East, they are *Unfurled* by Douglas Bentham located on the traffic island in the intersection of 25th Street East and Spadina Crescent East and the painted traffic control box on 25th Street East at 6th Avenue depicting a mural of Joni Mitchell with musical instruments in recognizable Saskatoon locales, painted by Sharie Headon

as part of the Saskatoon Community Youth Arts Programming (SCYAP) Urban Canvas Project. The other public artworks within Kinsmen Park are part of The Mendel Art Gallery's collection—they are all welded steel sculptures made in the 1960's and 1990's. These works are by Brian Newman, James Korpan, Peter Hide, Clay Ellis and Douglas Bentham. It is undetermined at this time whether these sculptures belonging to the Mendel collection will be re-located to the new Art Gallery of Saskatchewan site at River Landing when the gallery moves into these new premises.

The public artwork found in and around Kinsmen Park is quite representative of the broader public art collection throughout the City of Saskatoon in terms

of materials, stone or steel, and the various expressions of figuration, either representative or abstract. With the earliest of these artworks being installed in 1921 and the rest in the 1980's and onward, these artworks also illustrate a significant shift that happened in the last century with the presentation of artwork in the public realm—the removal of the plinth. The 1921 *Sergeant Hugh Cairns V.C.* memorial is sited on a tall, granite plinth which elevates and removes the actual marble figure out of the sphere of the viewer. As with many memorials of its time, the figure is elevated in order to exalt, in this case, the ultimate sacrifice of his and the other soccer players' lives in World War I. The soccer gear on the marble figure is very unique—quite possibly the only one in the world—on a WWI memorial. Interestingly, this rendering of the figure in athletic clothing is echoed further south along Spadina Crescent East with the *Denny Carr* commemorative bronze figure by Bill Epp installed in 2000. The more recent artwork in Kinsmen Park, although still figurative, is presented directly on the ground occupying the same sphere as the viewer and thereby setting up a more direct experience of the work. The removal of the plinth as a type of institutional form used to authorize the work as art parallels a similar development with the land art movement of the 1960's and 70's which sought to break away from the institutional and commercial form of the gallery to find a less contested and less constrained space to inhabit as contemporary art practice expanded its modes.



Figure 6 CHILD'S PLAY by Robert Iveson & Tommie Gallie, 1982, Photo by D. Gabrielson.

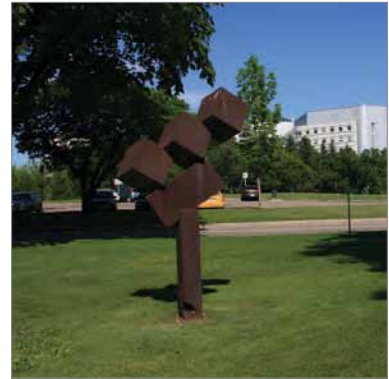
of materials, stone or steel, and the various expressions of figuration, either representative or abstract. With the earliest of these artworks being installed in 1921 and the rest in the 1980's and onward, these artworks also illustrate a significant shift that happened in the last century with the presentation of artwork in the public realm—the removal of the plinth. The 1921 *Sergeant Hugh Cairns V.C.* memorial is sited on a tall, granite plinth which elevates and removes the actual marble figure out of the sphere of the viewer. As with many memorials of its time, the figure is elevated in order to exalt, in this case, the ultimate sacrifice of his and the other soccer players' lives in World War I. The soccer gear on the marble figure is very unique—quite possibly the only one in the world—on a WWI memorial. Interestingly, this rendering of the figure in athletic clothing is echoed further south along Spadina Crescent East with the *Denny Carr* commemorative bronze figure by Bill Epp installed in 2000. The more recent artwork in Kinsmen Park, although still figurative, is presented directly on the ground occupying the same sphere as the viewer and thereby setting up a more direct experience of the work. The removal of the plinth as a type of institutional form used to authorize the work as art parallels a similar development with the land art movement of the 1960's and 70's which sought to break away from the institutional and commercial form of the gallery to find a less contested and less constrained space to inhabit as contemporary art practice expanded its modes.

PUBLIC ART CONTEXT



1

See Appendix A
(pages 54-56) for
artwork details



2



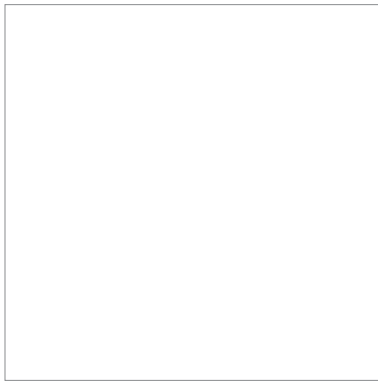
3



4



5



6



7



8

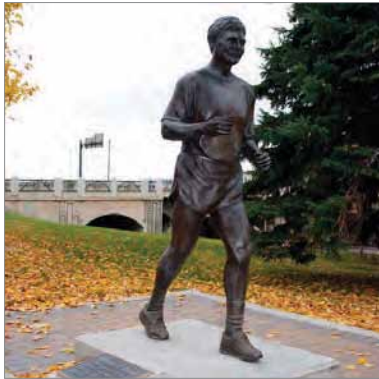


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PUBLIC ART CONTEXT



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See Appendix A
(pages 54-56) for
artwork details



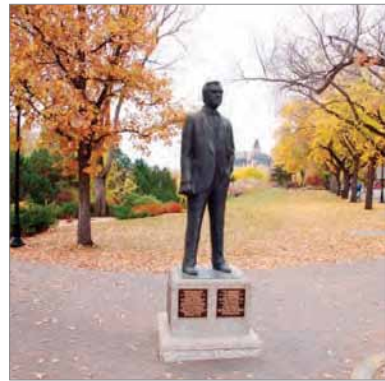
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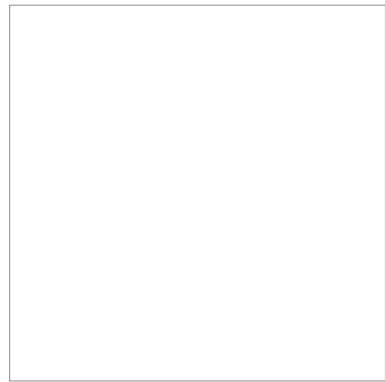
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CONTEMPORARY ART CONTEXT

INTRODUCTION

A well-thought-out public art strategy will be developed with the context of local contemporary art practice in mind. One of the markers of a healthy and dynamic public art program in a city is whether or not both the emerging and established artists of that community are accessing and engaging with the opportunities being offered for making art in the public realm. Not all artists will be interested in participating in a public art program, but for those who are, the consideration of the public realm and all of the attendant real and imagined spaces, social exchanges, broad spectrum of audiences and multiplicity of claims will have an expanding effect on their studio and gallery practices. What follows is a brief summary of the historical visual art legacies and current-day contemporary art practices in Saskatoon.

LEGACIES

What is quite extraordinary about the visual art history of Saskatoon and the province of Saskatchewan, is that although it developed in relative isolation compared to the major art centres of the last century—London, Paris and New York—the work that was being made in the province came to be regarded of an equal calibre and drew the attention of the outside art world; which in a decades-long-stream, came to Saskatchewan to interact with the community of artists there.²¹ I am referring, of course, to the Emma Lake Artists Workshops.

Terry Fenton argued that it was thanks to the workshops of the early 1960s that Saskatoon, small city that it was then, had “some of the strongest and most original artists in North America, despite the fact that artists there have little or no market for their work in the immediate area.”²³

Other legacies to note are the Prairie Sculptors Association and the University of Saskatchewan’s Department of Art and Art History. The Prairie Sculptors

Association was founded in 1981 by Bill Epp and a group of artists, many of whom were his former students. The organization focuses on fostering a greater understanding and appreciation of sculpture in the Prairie provinces. Each year, the members organize a sculpture symposium in which large-scale sculptures are produced and techniques, equipment and labour

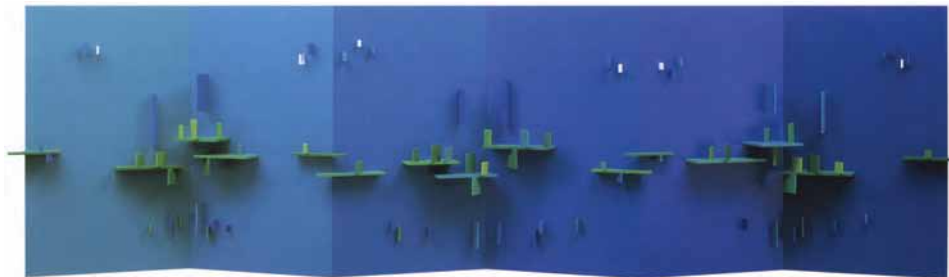


Figure 7 QUADRIPLANE STRUCTURIST RELIEF NO. 1 (River-Screen Series) by Eli Bornstein, 1989-95. Acrylic enamel on aluminum and Plexiglas, 35.6 x 137.8 x 14.6 cm. (Image Source: Abstract Painting in Canada)²²

are shared. Founded in 1933, the visual arts program at the University of Saskatchewan has had a long history of educating and developing excellent artists and continues to play a vital role in the on-going development of the local artist community.

In tracing the work of the painters and sculptors who attended the Emma Lake Workshops over the years, the sculptors who are a part of the Prairie Sculptors Association and the art professors and graduates from the University of Saskatchewan, one can see that several of them have contributed significantly to the public art collection in Saskatoon.

CURRENT DAY

There have been a number of recent exhibitions, both inside and outside of the province of Saskatchewan, which feature many of the emerging artists in the province today.

Within the province of Saskatchewan, there was the Mendel Art Gallery’s *Flatlanders, Saskatchewan Artists on the Horizon* exhibition in 2008 featuring the work of 17 Saskatchewan artists and Regina’s Dunlop Art Gallery’s *Mind the Gap!* exhibition in 2009 featuring the work of 30 artists from around the province. Outside of the province, there was the *Love, Saskatchewan* showcase in 2010 at the Harbourfront Centre in Toronto which included the *Combine* exhibition fea-

CONTEMPORARY ART CONTEXT

turing 18 artists from Saskatchewan. In May of 2012, a large exhibition titled, *Oh, Canada*, will open at the Massachusetts Museum of Contemporary Art (MASS MoCA) in North Adams Massachusetts. This exhibition will feature 63 Canadian artists and collectives, 14 of whom currently live and work in the Prairies as well as others who originally came from there.

Reading the catalogues and media reviews from these exhibitions, and having direct conversations with the curators have helped me to form a sense of what is happening with contemporary art on the Prairies in general and Saskatoon in particular. What I encountered in these conversations was a sense of enthusiasm, attraction and interest for the artwork being made in Saskatchewan today.

The curator of the *Oh, Canada* exhibition at MASS MoCA, Denise Markonish, and the curator of *Combine* at Toronto's Harbourfront Centre, Patrick Macaulay, generously agreed to write brief texts outlining their observations and thoughts for inclusion in this document.

DENISE MARKONISH, CURATOR, MASS MOCA

Oh, Canada, 27 May 2012 to 1 April 2013

After spending the last three years traveling across Canada, visiting nearly 400 artists studios along with museums, artist run centres and other contemporary art spaces, I began to notice trends in the art making across the country. This was particularly strong in the Prairies where I visited Winnipeg, Saskatoon, Regina, Edmonton, Calgary and Lethbridge—along with smaller towns around the peripheries of each city.

Just like the trends of photo-conceptualism in Vancouver or text-based conceptual practices in Halifax, the Prairies region has a kind of style to it, one that seems very centered around accumulation. What I mean by this is that many of the artists I visited are collectors and use this material in the creation of their work or are making objects that are then layered and piled atop one another.

I have thought a lot about this and keep coming back to the vastness of the landscape—the openness and that perhaps this work is a direct result of “filling the void” or harkens back to a kind of homesteading. There is a kind of economy of means and a knowledge of materials in this area too that lead to a new kind of re-skilled making and use of craft materials and methods



Figure 8 THUNDERBIRD by Wally Dion, 2008. Circuit boards, plywood, acrylic paint, 47 7/8 x 116 1/2 x 3 7/8 inches. Photo by Don Hall.²⁴

*for conceptual ends. There is also a sense of the surreal and the fantastical across the Prairies, perhaps most evident in the Winnipeg art scene but extending beyond there as well. It is a great misconception that active art scenes only exist in the major metropolitan centers in Canada; the artists of the Prairies are a great testament to thinking otherwise. I was incredibly impressed with the art scene in the Prairies, and funny enough when visiting an artist in say, Montreal or Vancouver, I could always tell by their artwork if they grew up in Manitoba, Saskatchewan or Alberta. I look forward to watching what art comes out of the Prairies in the future.*²⁵

PATRICK MACAULAY, CURATOR, HARBOURFRONT CENTRE, TORONTO

Combine, 19 June to 19 September 2010

*When I went to Saskatchewan what intrigued me about the work that I saw was that it was rooted in a figurative tradition. Not truly representational but rather the objects and images were constructed in a way that something was understandably readable; the work was not obtuse or abstract. Whether it was painting, sculpture, video or installation, the visual clues to the source remained apparent and attached. These artists were reconstructing images and objects that were familiar but yet unfamiliar.*²⁶

See Appendix B for media reviews of *Combine*.

PROGRAM PROFILES

INTRODUCTION

What follows are descriptions of several public art programs that have been developed for either urban park spaces or regional open spaces. These programs offer examples of programming, administrative, financial and curatorial structures that are informative for consideration in this public art strategy for Kinsmen Park. Elements common to each of the following programs are: funding sources include a combination of all levels of governments (including municipal), foundations, corporations, and individuals; the public art projects are often developed in partnership with local non-commercial art galleries; the curation of the programs is typically done by a curatorial team who approach the artists they select to make new work for the space; artists are typically asked to choose their own sites within the spaces available; the public art projects are documented in published catalogues; and the programs and resulting art projects are thoroughly described on dedicated web sites (see References Section).

SKULPTUR PROJEKTE MÜNSTER, GERMANY

Originally founded in 793²⁷, and with a current population of about 280,000²⁸, Münster is a university city in northwest Germany in the state of North Rhine-Westphalia. The city is known as the bicycle capital of Germany and maintains an extensive network of dedicated bicycle pathways. In 2007, the number of bicycles being used for transportation exceeded the number of vehicles.²⁹ The region is known for its agricultural production, some of which is within the city boundaries. In World War II, Münster was bombed heavily resulting in 91% of the old city and 63% of the entire city being destroyed. The old city was re-built as a replica of its pre-WWII state after 1945.³⁰

Skulptur Projekte Münster began in 1977 and was born out of a controversy that erupted over a publicly sited sculpture in Münster. The work, *Drei rotierende Quadrate*, was a kinetic sculpture by George Rickey. To deal with the public outcry over the work, and to foster understanding about art in public places, the director of the Westfälisches Landesmuseum in Münster, Klaus Bussmann, organized a series of lectures and presentations at the museum. The idea for the Skulptur Projekte came out of these efforts.³¹

Founded by Klaus Bussmann and Kasper König (curator of Museum Ludwig), Skulptur Projekte Münster was first launched in 1977 with invitations to nine artists to develop artworks for outdoor sites around the city. The nine artists were Carl Andre, Michael Asher, Joseph Beuys, Donald Judd, Richard Long, Bruce Nauman, Claes Oldenburg, Ulrich Ruckreim and Richard Serra.³²

The structure of Skulptur Projekte is that it repeats once every decade. After the first presentation of projects in 1977, exhibitions have been launched in 1987 (63 artists), 1997 (74 artists) and most recently in 2007 (34 artists). A new curatorial team is formed for each presentation which invites a selection of artists from all over the world to participate in the exhibition which typically runs from early June to the end of September so that it runs concurrently with another exhibition which recurs every five years,

PROGRAM PROFILE

Documenta, about 200 kilometres to the south in Kassel. Most visitors will make plans to travel to both exhibitions.

The framework given to the invited artists is to consider the city of Münster and propose a public artwork—for a particular site of their choosing—that will enter into a dynamic exchange with the physical fabric of the city, its public spaces, histories, social structures, citizens and visitors. In doing this, the artists set up a dialogue between contemporary artwork and public space. The artworks are initially temporary, but over the last four decades, thirty-five of the artworks have been purchased by the city and made permanent. The citizens of Münster have come to embrace the Skulptur Projekte, regard it with civic pride and appreciate the level of economic activity it generates for the city.³³

The funding for the exhibitions is primarily provided by the Landschaftsverband Westfalen-Lippe (LWL) which is an association of regional communities, the city of Münster and the federal state of North-Rhine Westphalia as well as other regional art organizations and private donors. The budget for the 1987 exhibition was \$650,000 (US). The 1997 and 2007 exhibitions drew 500,000 and 575,000 visitors to the city respectively. In 2007, journalists from 57 countries reported on the exhibition. Organization of the Skulptur Projekte is provided by the LWL State Museum of Art and Cultural History in Münster.³⁴

“ ”

*The fundamental idea behind the exhibitions was to create a dialogue between artists, the town and the public, in other words to encourage the artists to create projects that dealt with conditions in the town, its architecture, urban planning, its history and the social structure of society in the town.*³⁵

Press release for the 1997 Skulptur Projekte Münster, as cited by Miwon Kwon in *One Place After Another*



Figure 9 *SQUARE DEPRESSION* by Bruce Nauman, white concrete, University of Münster Department of Natural Sciences, Münster Skulptur Projekte, 2007



Figure 10 *SQUARE DEPRESSION* by Bruce Nauman, white concrete, University of Münster Department of Natural Sciences, Münster Skulptur Projekte, 2007

PROGRAM PROFILE

TORONTO SCULPTURE GARDEN (TSG)

Established in 1981, the TSG is an interesting example of a public-private partnership. In the mid 1970's the founding patron, Mr. Louis L. Odette—a local businessman and longtime supporter of the arts—approached the City of Toronto with the intention of creating an on-going program for the temporary display of contemporary sculpture in a public space. It took several years to find a suitable space and negotiate the terms of the program and relationship with the City. In order to fund the annual operating expenses for the program, Mr. Odette formed and endowed the non-profit L.L.O. Sculpture Garden Foundation. The City agreed to provide the Foundation with a long term lease of a City-owned building at 111 King Street East and adjacent urban park space in return for financing all leasehold improvements needed to upgrade the building for a restaurant and commercial use. The Foundation sublets the building space to generate revenue which off-sets some of the operating expenses for the sculpture program. Through the Department of Parks and Recreation, the City of Toronto maintains the site as a park and is responsible for the maintenance and security of the grounds.

The TSG's exhibition mandate is for solo exhibitions of site specific artwork commissioned for its 80 by 100 foot space. Presenting two shows a year, the program serves as a testing ground for artists to experiment with public space and the challenges of siting work outside of the gallery in an urban context. Artists submit their proposals based on a set of criteria outlined on the web site and the volunteer Art Advisory Board meets three times per year to review the proposals and select work. The selected artists are provided with a \$20,000 budget to design, fabricate, install and remove their work including a set artist fee of \$2,500. The TSG is a non-collecting organization and as such the artists retain ownership of the artwork. The artworks are documented on the program web site (see References Section) and in publications including a catalogue published in 1998. The program is overseen by a public art consultant on a part-time contract to the Foundation.³⁶

“ ”

When the Toronto Sculpture Garden (TSG) first began its program in 1981, siting artwork in the city was relatively new within contemporary art practice. Before then, most of the sited artwork in the public realm was commemorative and more historic in nature. Over the ensuing 30 years of commissioning temporary public art projects for the TSG, the activity of artists working on site to physically install their work has provided the public with the opportunity to meet the artists, talk with them about the work and see the work take shape and sometimes even be completely built on the site. This has humanized contemporary art for our audience, which over time, has therefore become more knowledgeable, tolerant and engaged. The temporary nature of the installed works has also helped the public be more relaxed about the program. Because the TSG is a public space rather than gallery space, the public sees the work repeatedly over time and becomes sensitized to the aesthetic and nature of contemporary art, thereby fostering a greater level of appreciation.³⁷

Rina Greer, Director of the Toronto Sculpture Garden

PROGRAM PROFILE



Figure 11 GOLD, SILVER & LEAD by Jed Lind, Toronto Sculpture Garden, Sept 2011 to Sept 2012 (Image Source: TSG web site)



Figure 12 IN SIT YOU by Jennifer Marman and Daniel Borins, Toronto Sculpture Garden, October 2006 to April 2007



Figure 13 MIST: FROM THE SPACE CRYSTALLIZATION CYCLE by Ludwika Ogorzelec, Toronto Sculpture Garden, May to Sept. 2007

PROGRAM PROFILE

TARGET ART IN THE PARK, NEW YORK, NY

Target Art in the Park was organized and presented by Public Art Fund on behalf of the City Parks Foundation—a non-profit organization which offers park programs throughout the five boroughs of New York City. Public Art Fund is a non-profit arts organization which organizes and presents temporary public art projects in New York City. It is supported with private funds from individuals, foundations and corporations, and with public funds from the New York State Council on the Arts, a State Agency, and the New York City Department of Cultural Affairs. The Target Art in the Park program launched three exhibitions, in 2000, 2001 and 2002, to celebrate the renovation and revitalization of Madison Square Park in New York City's Flatiron Building District. This program was the genesis of establishing Madison Square Park as a cultural destination within the city. In order to draw people to this new park space in the city, Public Art Fund strategically commissioned artwork from some of the world's leading contemporary artists.

The program was launched in late October, 2000 with a 13-night exhibit of Tony Oursler's sound and light installation *Influence Machine*. The program for 2001 featured commissioned interactive artworks by Navin Rawanchaikul, Teresita Fernandez and Tobias Rehberger in the park from May to September. In 2002, the exhibition featured newly commissioned artworks by Dan Graham, Mark Dion, and Dalziel + Scullion that highlight the link between city life and the natural world, and explore the present and past of historic Madison Square Park.

The Target Art in the Park program is named for the main sponsor, Target Stores, which contributed a \$1 million gift toward the development of an engaging three-year program of public artworks for the revitalization of Madison Square Park. Since 1962, Target Stores has partnered with non-profit organizations, guests and team members to help meet community needs.

Led by the City Parks Foundation with ongoing support from the City of New York/Parks & Recreation,

the Campaign for the New Madison Square Park is a dynamic partnership of corporations, nonprofit organizations, individuals, and city government working to rebuild, restore and improve Madison Square Park. The Campaign initially raised \$5 million in public and private funds for the redesign and reconstruction of the park, which will was completed in the spring of 2001. Further funds were then raised to ensure the protection, maintenance and programming of Madison Square Park. Once the renovation of Madison Square Park was complete, the maintenance and programming of the park was turned over to the Madison Square Park Conservancy (see next program profile).³⁸



Figure 14 I ♥ TAXI, by Navin Rawanchaikul, mixed media, Madison Square Park, 2001

PROGRAM PROFILE

Tony Oursler*The Influence Machine*

A mixed media installation for Madison Square Park, New York, NY, 19 to 31 October 2000

Commissioned by Public Art Fund for the *Target Art in the Park* Program

Tony Oursler's The Influence Machine, installed at Madison Square Park, captured voices and images of ghosts, both contemporary and historical, creating a séance experience that recalled 19th-century sound and light projections. Oursler experimented with video, smoke machines, a variety of soundtracks, and several sculptural elements to explore the historical and current impact technologies have on our daily lives.

*The Influence Machine was comprised of projections of large faces onto smoke and trees with corresponding narratives—poetic texts written by Oursler for this project and other voices from the history of early technology. Images of knocking hands were also projected onto trees and surrounding buildings with corresponding knocking sounds that alluded to Morse code and other early forms of communication. Texts ran over construction fencing and trees pronouncing intimate and encoded messages. In addition to Oursler's abstract narratives, the soundtrack for *The Influence Machine* included segments of radio feedback, the unusual sounds of a glass harmonica performed by Dean Shostak, and a score by Tony Conrad commissioned for this project.*

*The Influence Machine was the first exhibition of a three-year public art program called *Target Art in the Park*, organized by the Public Art Fund on behalf of the City Parks Foundation and sponsored by Target Stores.³⁹*

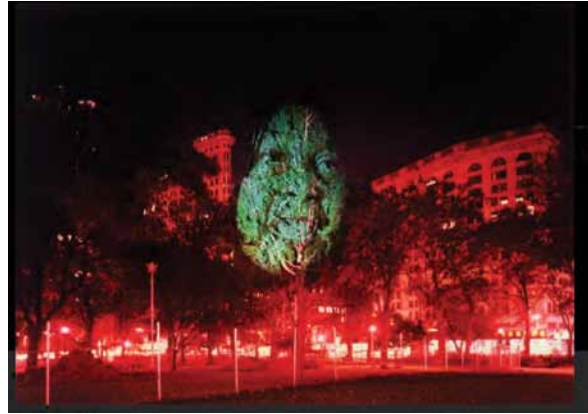


Figure 15 THE INFLUENCE MACHINE by Tony Oursler, mixed media, Madison Square Park, 2000 (Image Source: tonyoursler.com).



Figure 16 THE INFLUENCE MACHINE by Tony Oursler, mixed media, Madison Square Park, 2000. (Image Source: tonyoursler.com).

PROGRAM PROFILE

MADISON SQUARE PARK CONSERVANCY ART PROGRAM

Madison Square Park is a 6.2-acre park located in Manhattan's Flatiron District between 23rd and 26th Streets and between Madison and Fifth Avenues. Up until the late 1990's, the park was a badly neglected crime-ridden space and, for safety reasons, was generally avoided by the public. In the late 1990's, members of the surrounding community and businesses developed the Campaign for the New Madison Square Park resulting in the formation of a public-private partnership with the City of New York. The Campaign raised \$6-million in private and public funds to support a two-year capital restoration project completed in 2001. The following year, the Campaign formed the Madison Square Park Conservancy—a non-profit organization dedicated to maintaining the park as a safe, lively and beautiful public space. The Conservancy funds approximately 90% of the on-going park maintenance and 100% of the security. This park restoration and programming is credited with stimulating a resurgence of the whole Flatiron District of New York.

The Conservancy also funds an interesting mix of free cultural programs in the park including several free music concert series throughout the summer, a series of readings by notable authors and a program of temporary public art. The public art program, Madison Square Art, typically presents two solo exhibitions of major works a year, and is overseen by a board of directors and implemented by two full-time staff. Exhibitions have consisted of both existing artwork and work created specifically for the park. Ownership of the artwork remains with the artist, however, if the artist's dealer sells a pre-existing artwork while it is on display in the park, the Madison Square Art Program gets a 10% cut of the proceeds of the sale. In the case where the art program has funded the creation of an artwork, and if that artwork later sells, the program gets reimbursed for the cost of the artwork fabrication and installation. In order to establish an identity for this new program, the curators have targeted more well-known artists for the first few years.

The artworks are documented in publications and on the park's web site (References Section). The initial seed funding to begin the art program in 2002 was approximately \$300,000.⁴⁰

Roxy Paine

Three Sculptures

A sculptural exhibition for Madison Square Park, NYC
15 May to 31 December 2007

Commissioned by Madison Square Art



Figure 17 CONJOINED by Roxy Paine, Stainless Steel, Madison Square Art Program, 2007

“ ”

Roxy Paine's long interest in the juxtaposition of nature and industrialization has brought form to an extensive body of work. . . . Paine continues to see nature through an industrial prism. Through work that combines the organic with the manufactured, he questions our position between the man-made world that we control and nature's world that we do not.⁴¹

Madison Square Park Web Site

PROGRAM PROFILE



Figure 18 *ERRATIC* by Roxy Paine, Stainless Steel, Madison Square Art Program, 2007



Figure 19 On-site signage for *DEFUNCT* by Roxy Paine, Madison Square Art Program, 2007



Figure 20 *DEFUNCT* by Roxy Paine, Stainless Steel, Madison Square Art Program, 2007

PROGRAM PROFILE

WATERSHED PROJECT

Minetta Brook's Watershed Project is a series of commissioned temporary and permanent public artworks about the natural and cultural geography of the Hudson River Valley and was developed at a time when the Valley was in the midst of major economic and cultural change. Having been an economically depressed area for some time, the Hudson River Valley is experiencing a shift away from a waning manufacturing-based industrial economy to a tourism economy fueled primarily by the recent arrival of several significant cultural institutions such as the new Dia Centre for the Arts in the small town of Beacon along the Hudson, and the new Kaatsbaan International Dance Centre in Tivoli. Watershed was created to help generate dialogue and engagement with these economic and cultural shifts in the valley region, and in particular, with the seventy-mile stretch of the Hudson River between Bear Mountain and Hudson, New York.

Watershed was organized in partnership with a range of cultural, educational, environmental and civic organizations including the Dia Art Foundation; Scenic Hudson; Open Space Institute; Hudson River Valley Greenway; The Palisades Interstate Parks Commission; The Taconic Region of New York State Parks; the Beacon School District; the colleges of Bard, Marist, Dutchess and Vassar; the State University of New York at New Paltz and Harvard University. Carried out over a period of three years, Watershed consists of the seven public artworks. The following is a description of three of them.⁴²

Constance De Jong

Speaking of the River

Bear Mountain State Park & Madam Brett Park, NY
Commissioned by Minetta Brook for the Watershed Project

An audio project installed in customized benches equipped with proximity sensors and audio equipment in Bear Mountain State Park and Madam Brett Park. As a person sits on the bench, the sensor triggers the sound system to play the recorded artwork. For this artwork, Jong created a series of spoken texts relating stories gathered in interviews with former mill workers, current residents and recent immigrants to Beacon. The recorded artwork is also available on compact discs.⁴³



Figure 21 *SPEAKING OF THE RIVER* by Constance De Jong, installation view (Image Source: Minettabrook.org)

“ ”

Evoking both the post-Minimalist sculptural forms of Land art's first generation and the ecologically driven Conceptual strategies of its second, Muller's work is a garden in a rectangular steel box divided into plots containing edible plants sown in the various soils of six different Hudson Valley counties. In keeping with his interest in social systems, the artist has also organized a series of programs related to agriculture and cuisine. . . . Muller's garden was beautiful, healthy and blooming; it provided a salutary window on the agrarian culture of the region.⁴⁵

Jeffrey Kastner, *Review of Watershed in ArtForum*,
October 2003

PROGRAM PROFILE

Christian Philipp Müller

Hudson Valley Tastemakers

Bard College, Annandale-on-Hudson, NY
 Commissioned by Minetta Brook for the Watershed Project

A 100-foot long steel sculpture installed at Bard College that is divided into six sections that each represent the visible percentage of remaining farmland in the mid-Hudson Valley (according to 2001 statistics). The six sections represent Putnam, Greene, Ulster, Orange, Dutchess and Columbia counties and are filled with soil from these counties and edible plants that have been selected according to their ability to thrive in the local microclimate and soil quality. As the plants change seasonally, this project examines the specific tastes of food produced in the Hudson Valley relating this to the changing nature, soil and microclimate of this region. The intention of the project is to define new and forgotten flavours and tastes of the Hudson Valley, to support local farmers and to encourage the culinarily curious. A cookbook was also planned to include recipes from farmers, chefs and the public.⁴⁴



Figures 22 & 23 HUDSON VALLEY TASTEMAKERS by Christian P. Müller, installation view. (Image Sources: Minettabrook.org)

James Welling & Will Welling

Agricultural Works

Samuel Dorsky Museum, New Paltz, NY
 Commissioned by Minetta Brook for the Watershed Project

An interesting collaboration between two brothers, James and Will Welling, resulting in a series of seventy-five colour photographs by James Welling and musical recordings of fiddle tunes set against background soundscapes of farm machinery by Will Welling. This project documents the farmland of the Hudson River Valley, with its collections of machinery and buildings, crops, livestock and vineyards recording the biological rhythms and constructed forms. After initially being presented at the Samuel Dorsky Museum of Art in New Paltz, New York it was then exhibited at the Albany Institute of History and Art and continued on to be shown in other university galleries throughout the Hudson River Valley. In addition to the exhibition program, this project has also been published as a book of photographs that includes a compact disc of Will Welling's musical recordings.⁴⁶



Figure 24 LAMPMAN FARM, C Print, from AGRICULTURAL WORKS by James Welling (Image Source: Minettabrook.org)

ARTWORK PROFILES

INTRODUCTION

What follows are in-depth descriptions and images of a series of public art projects created for urban park spaces—many of which were commissioned for the public art programs described in the previous section. The artworks profiled here are Janet Cardiff's *Her Long Black Hair* for Central Park in New York, Jessica Stockholder's *Flooded Chambers Maid* for Madison Square Art, Mark Dion's *Urban Wildlife Observation Unit* for Target Art in the Park by Public Art Fund, Ursula von Rydingsvard's *Damski Czepek* for Madison Square Art, Julianne Swartz's *Digital Empathy* for the newly developed High Line in New York City and Rafael Lozano-Hemmer's *Pulse Park* for Madison Square Art. What is common to all of these work is the temporary nature of their installation as part of a larger program of changing artworks for the park spaces.

These artworks offer the public varying levels of interactivity, spectacle, time-specific events, issue-related awareness, site specificity, monumentality and ephemerality. By adding layers of meaning and interpretation to the park, each artwork sets up a unique, new way to experience the park space in which it is located—and through this, the works contribute to deepening the public's awareness of and relationship to the park space and contemporary art practice.

The works described in these profiles are examples of public artworks which bear a very close relationship to the artists on-going contemporary art practice (for gallery spaces and the public realm), and as such, carry with them all the benefit of the investigation and exploration in those practices.

Janet Cardiff

Her Long Black Hair

An audio walk for Central Park, New York, NY

16 June to 11 September 2005

Commissioned by Public Art Fund

Janet Cardiff's Her Long Black Hair is a 35-minute journey that begins at Central Park South and transforms an everyday stroll in the park into an absorbing psychological and physical experience. Cardiff takes each listener on a winding journey through Central Park's 19th-century pathways, retracing the footsteps of an enigmatic dark-haired woman. Relayed in a quasi-narrative style, Her Long Black Hair is a complex investigation of location, time, sound, and physicality, interweaving stream-of-consciousness observations with fact and fiction, local history, opera and gospel music, and other atmospheric and cultural elements. At once cinematic and non-linear, Her Long Black Hair uses binaural technology—a means of recording that achieves incredibly precise three-dimensional sound—to create an experience of physical immediacy and complexity.

The walk echoes the visual world as well, using photographs to reflect upon the relationship between images and notions of possession, loss, history, and beauty. Each person receives an audio kit that contains a CD player with headphones as well as a packet of photographs. As Cardiff's voice on the audio soundtrack guides listeners through the park, they are occasionally prompted to pull out and view one of the photographs. These images link the speaker and the listener within their shared physical surroundings of Central Park.⁴⁷

ONLINE REFERENCE

To listen to audio walk: www.cardiffmiller.com/artworks/walks/longhair.html#

ARTWORK PROFILE



Figure 25 HER LONG BLACK HAIR, by Janet Cardiff, New York, NY, 2005, Commissioned by Public Art Fund. (Image source: www.cardiffmiller.com)



Figure 26 HER LONG BLACK HAIR, by Janet Cardiff, New York, NY, 2005, Commissioned by Public Art Fund. (Image Source: www.cardiffmiller.com)

ARTWORK PROFILE

Jessica Stockholder*Flooded Chambers Maid*

A site-specific multi-media installation for Madison Square Park, New York

1 May 2009 to 15 August 2009

Commissioned by Madison Square Art, a public art program for the Madison Square Park Conservancy organization

Various kinds of geometry stretch over two sections of lawn bisected by a walking path. On one side of the path there are bleachers from the top of which the rest of the work can be viewed. Across the path from the bleachers there is an 80-foot long platform that can be walked on. The surface of the platform is composed of an irrational geometry described with metal and resin grating, shape and color. Behind the bleachers there is a flowerbed the patterns of which intersect the patterning of the platform. Experience of the work calls attention to an intersection of geometric abstraction proposed by the sculpture with the geometry of the parks design, and with the organic patterning that is inherent in the grass, trees, flowers, and structure of the surrounding buildings of the city. It allows a moment to take a turn off the beaten path.

Pleasures can be discovered in the processes of doing. Existing, making, and servicing needs can give rise to pleasure. Need is linked to pleasure. Pleasure can take over as the goal if it is not at the outset. The park exists to service need and to give pleasure. The body is central to the experience provided by the park and by the sculpture.

We have a need to be connected to things growing and to the processes of nature. The order of the park intersects the things growing there. The park is a form, a container, and a bracket mediating our experience of "nature." It mediates nature both in and outside of our selves – our nature and the nature of trees, plants, animals, sky, and rain outside of us. The pleasure taken in relation to aesthetic order and structure derives meaning and impact as it relates to the place of pleasure in negotiating our needs through the course of life.⁴⁸



Figure 27 FLOODED CHAMBERS MAID by Jessica Stockholder, mixed media, Madison Square Park Conservancy Art Program, 2009. Photo by Tony Cenicola, NY Times.

“ ”

It was a brilliant spring morning in Madison Square Park, and the uptown end of the central lawn was already crowded with children playing on a multi-colored triangular platform that looked as though it had been made from giant Lego blocks. The children clambered up and down, tossing balls, yelling gleefully and digging in a square of blue rubber mulch that lay on the ground beneath this structure. Their mothers and baby sitters lounged alongside them, sitting on the platform or watching from a set of adjoining turquoise bleachers. At first glance this assemblage might have been mistaken for a particularly inventive playground. But it was actually a piece by the artist Jessica Stockholder, who was watching from the sidelines with Debbie Landau, the president of the Madison Square Park Conservancy, which commissioned the work. Both of them laughed in amazement at the unfolding spectacle.⁴⁹ (Full article in Appendix B)

Carol Kino, New York Times, 14 June 2009

ARTWORK PROFILE



Figure 28 FLOODED CHAMBERS MAID by Jessica Stockholder, mixed media, Madison Square Park Conservancy Art Program, 2009. Photo by Andrew Russeth, 16 Miles of String.



Figure 29 FLOODED CHAMBERS MAID by Jessica Stockholder, mixed media, Madison Square Park Conservancy Art Program, 2009. Photo by Andrew Russeth, 16 Miles of String.



Figure 30 FLOODED CHAMBERS MAID by Jessica Stockholder, mixed media, Madison Square Park Conservancy Art Program, 2009. Photo by Andrew Russeth, 16 Miles of String.

ARTWORK PROFILE

Mark Dion*Urban Wildlife Observation Unit*

A Multi-media installation for Madison Square Park, NYC
12 July to 31 October 2002

Commissioned by Public Art Fund for the *Target Art in the Park* Program

Working closely with scientists and non-art institutions, Mark Dion mines the fields of ecology, botany, ethnography, and natural history museum displays in realizing his installations and sculptures. His long-standing interest in environmental issues has led him to create Urban Wildlife Observation Unit, a constructed urban ecological center that will allow park visitors to re-examine their surroundings by taking a closer look at the natural environment—the animals, bugs and trees—in Madison Square Park.

Fashioned after a 19th-century wildlife refuge viewing area, Dion will adorn his field station with objects, drawings, and other props that pertain to the park's natural surroundings. Created with input from park rangers and New York-area naturalists, Dion's interactive sculptural area allows for a unique and educational engagement with Madison Square Park.⁵⁰

Dion's work examines the ways in which dominant ideologies and public institutions shape our understanding of history, knowledge, and the natural world. The job of the artist, he says, is to go against the grain of dominant culture, to challenge perception and convention. Appropriating archaeological and other scientific methods of collecting, ordering, and exhibiting objects, Dion creates works that question the distinctions between 'objective' ('rational') scientific methods and 'subjective' ('irrational') influences. By locating the roots of environmental politics and public policy in the construction of knowledge about nature, Mark Dion questions the authoritative role of the scientific voice in contemporary society.⁵¹ Dion documented his findings in a fully annotated and illustrated field guide published by the Public Art Fund.



Figure 31 Interior view of the *Urban Wildlife Observation Unit*, 2002 by Mark Dion New York, NY, Commissioned by Public Art Fund. (Image Source: Plop Recent Projects of the PAF)

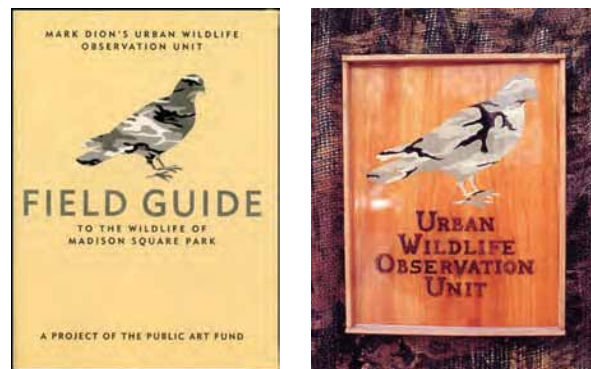


Figure 32 Field Guide publication and the door plaque of the *Urban Wildlife Observation Unit*, 2002 by Mark Dion New York, NY. (Image Source: Plop Recent Projects of the PAF)

ARTWORK PROFILE



Figure 33 Exterior view of the URBAN WILDLIFE OBSERVATION UNIT, 2002 by Mark Dion New York, NY. (Image Source: Plop Recent Projects of the Public Art Fund)

ARTWORK PROFILE

Ursula von Rydingsvard*Damski Czepek*

Four sculptures (cast resin and cedar) for Madison Square Park, New York

1 June 2006 to 1 February 2007

Commissioned by Madison Square Art, a public art program for the Madison Square Park Conservancy organization

The centrepiece of this exhibition of four major sculptures by Ursula von Rydingsvard was *Damski Czepek*. Inspired by the park's scale and location and specifically made for this exhibition out of cast resin, *Damski Czepek* reflects a shift in medium for the artist who typically works with cedar. The 14-foot translucent work was sited at the north end of the park's Oval Lawn where the sculpture captures the morning sun as it enters the park space. This work continues the artist's investigation into the monumental vessel form inspired by an everyday household object remembered from childhood—in this case a bonnet. The bonnet's ribbons which spread out over the lawn offer seating in front of the larger vessel form. Von Rydingsvard initially sculpted this piece in cedar in her studio in Brooklyn, NY, then disassembled it and shipped it to a foundry in Washington State where it was cast in translucent polyurethane resin. In the artist's words, this work began with an image "that has haunted me for a long time", for which she found cedar to be too heavy and light-absorptive of a material to be a suitable. Hence the shift and expansion of her practice into this new medium of resin.

The other three sculptures in the exhibition, *Czara z Babelkami* (2006), *Ted's Desert Reigns* (2006) and *Bowl with Fins* (2004) offer forms and quotes that are familiar to von Rydingsvard's sculptural vocabulary of the vessel and bowl which are transformed into a monumental scale in cedar. Although these works are of a monumental scale, the surfaces of each one have been painstakingly worked by the artist in great detail.



Figure 34 Installation view of CZARA Z BABELKAMI, 2006 by Ursula von Rydingsvard, cedar, Madison Square Park, New York.

ARTWORK PROFILE



Figure 35 Installation view of DAMSKI CZEPEK, 2006 by Ursula von Rydingsvard, cast resin, Madison Square Park, New York

ARTWORK PROFILE

Julianne Swartz*Digital Empathy*

An audio installation for The High Line, New York, NY

8 June 2011 to June 2012

Commissioned by High Line Art and presented by Friends of the High Line and the New York City Department of Parks and Recreation

Julianne Swartz's sound installation, Digital Empathy, greets High Line visitors with a variety of messages. At some sites, computer-generated voices speak messages of concern, support, and love, intermingled with pragmatic information. In other sites, those same digitized voices recite poetry and sing love songs to park visitors.

Installed in eleven different locations throughout the park, the sound is transmitted through the park's bathroom sinks, water fountains, and elevators. These sites are not only unexpected places in which to encounter public art, they are places designed for individuals or small numbers of people, allowing for intimate encounters within an otherwise sprawling, communal space. The locations for Swartz's sound interventions are indicated by graphic-based signage created by the artist that mimics standard public information signs.

Digital Empathy plays on the notion that, in our culture, we turn to technologies like online social networking, blogs, and instant messages to meet our basic human need for friendship and personal connection.⁵²

ONLINE REFERENCES

Listen to Artist Interview: www.youtube.com/watch?v=Pjfn7Db714g

“ ”

I hope it will catch visitors off-guard a little bit, that is why I wanted to embed the sounds in the sites in a very subtle way. I definitely want an experience that takes a viewer off guard a little bit and interrupts a daily routine. You take the stairs, you take the elevator, you get a drink of water, you go to the bathroom—these are all daily routines. That little interruption in the daily routine is one thing I am looking for in the reception of the piece. I'd like the tone to be complicated and definitely I'd like the first read to be humorous and fun. I want that quality, but I also want a more disconcerting quality, something lingers that feels not quite right, or where something is lacking. I definitely am referring to technology in our daily lives, and I do want people to think about that. I want them to think about dependence in general—dependence on technology but also dependence on other people and where those things get complicated.⁵³

Julianne Swartz, video interview with artist on YouTube



Figure 36 DIGITAL EMPATHY, detail of the graphic signage on drinking fountains

ARTWORK PROFILE



Figure 37 DIGITAL EMPATHY, installation view of drinking fountain. Photo: Gino Sanchez



Figure 38 DIGITAL EMPATHY, detail of the elevator graphic and project sign. Photo: Gino Sanchez.

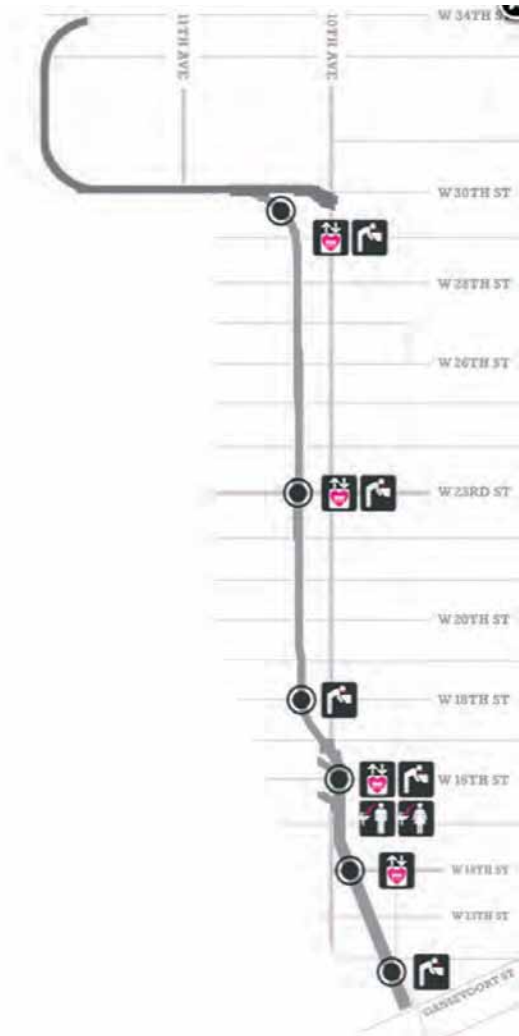


Figure 39 DIGITAL EMPATHY, locations map

ARTWORK PROFILE

Rafael Lozano-Hemmer*Pulse Park Relational Architecture 14*

An interactive light installation for Madison Square Park, New York, NY

24 October 2008 to 1 January 2009
(nightly from dusk to 10 pm)

Commissioned by Madison Square Art, a public art program for the Madison Square Park Conservancy organization

Pulse Park is comprised of a matrix of light beams that graze the central oval field of Madison Square Park. Their intensity is entirely modulated by a sensor that measures the heart rate of participants and the resulting effect is the visualization of vital signs, arguably our most symbolic biometric, in an urban scale.

In Pulse Park, evening visitors to Madison Square Park have their systolic and diastolic activity measured by a sensor sculpture installed at the North end of the Oval Lawn. These biometric rhythms are translated and projected as pulses of narrow-beam light that will move sequentially down rows of spotlights placed along the perimeter of the lawn as each consecutive participant makes contact with the sensor. The result is a poetic expression of our vital signs, transforming the public space into a fleeting architecture of light and movement.

Pulse Park is inspired by Roberto Gavaldón's film "Macario" (Mexico, 1960) in which the protagonist has a hunger-induced hallucination wherein individuals are represented by lit candles, as well as by the minimalist musical compositions of Conlon Nancarrow, Glenn Branca and Steve Reich. Pulse Park is the culmination of a series that Lozano-Hemmer debuted at the 2007 Venice Biennale with Pulse Room.⁵⁴



Figure 40 PULSE PARK detail view of the heart rate sensor. (Image Source: Lozano-Hemmer.com).

ARTWORK PROFILE



Figure 41 PULSE PARK installation view from above. (Image Source: Lozano-Hemmer.com).



Figure 42 PULSE PARK installation view from the ground. (Image Source: Lozano-Hemmer.com).



Figure 43 PULSE PARK installation view from the ground. (Image Source: Lozano-Hemmer.com).



Figure 44 The South Saskatchewan River and river bank just upstream from the weir. Photo by Damien Gabrielson.

VISION & OBJECTIVES

“ ”

Artists do not have privileged vision, but they do have a practiced eye and the ability to speak in a rich variety of languages—verbal, visual, conceptual, sensual, serious, humourous, figurative and rational. Sometimes and somehow they break through ordinary expectation and cause people to venture upon new perspectives. This is not because they have made an orbital leap from private to public, but because their insightful expression ignites response.⁵⁵

Hilde Hein, *What is Public Art?: Time, Place, Meaning*, 1996

PUBLIC ART VISION

The intention of the overall Master Plan is “to set a vision that will attract, captivate and delight users from 1 to 100”. In support of that overall intention, the proposed vision for the public art strategy for Kinsmen Park is to enrich the experience of the park and its spaces through a dynamic exchange between the public realm, contemporary art practice and the visitors to the park.

PUBLIC ART OBJECTIVES

1. Support and promote excellence within contemporary art practice in Saskatoon.
2. Strengthen public engagement with and understanding of contemporary art practice in Saskatoon.
3. Engage the interest of the contemporary art community through the development of innovative public art opportunities that support and accommodate critical artistic exploration.
4. Offer both emerging and established artists the opportunity to expand their art practices through the consideration of the public realm as a sphere within which to engage new audiences.
5. Support the overall objectives of the Kinsmen Park and Area Master Plan.



Figure 45 The swale in Kinsmen Park in spring. Photo by Damien Gabrielson.

GUIDING PRINCIPLES & STRATEGIES

“ ”

The reason one asks an artist to do something in a public space is because he or she is working within the dialogue of contemporary art in a serious and meaningful way that provokes questions that would be interesting to raise and address in a public space. Public art should proceed out of what the artist is doing as an artist.⁵⁶

Patricia Fuller, *Evaluating Artistic Quality in the Public Realm*, 1990

SITE TYPOLOGIES IN KINSMEN PARK

As this public art strategy for the park is implemented, it will be important to develop a detailed set of technical performance criteria for working with the various sites in the park. This will involve the knowledge and expertise of an arbourist, and professionals in the landscape architecture and engineering disciplines. The City of Saskatoon’s engineering and parks and recreation departments will also need to be involved in this effort. Survey information (to understand grades, location of trees and other park elements) will be important information to collect and make available to artists. Photo documentation of the sites in summer and winter conditions will also be a helpful resource to artists as they develop proposals.

It will be important to coordinate with the other organizations which are active in the park—the Meewasin Valley Authority, the river boat touring company, the Shakespeare on the Saskatchewan group and the new user group(s) in the Mendel building—to orient them to the public art strategy and develop preliminary approvals and criteria for artists who want to engage with the sites and areas these organizations use in the park.

As a starting point, the following list identifies some of the sites and site typologies within Kinsmen Park.

- Winter and summer sites
- Grove of coniferous trees
- Groves of deciduous trees
- Paved pedestrian walkways
- Un-paved walking trails
- Cross-country ski trails
- Sledding slope
- Land bridge - over and under
- Open grassy areas - flat and sloped
- River bank
- The South Saskatchewan River
- The river boat launch area
- The river boat
- Park edges - streetscapes of 25th Street East, Spadina Crescent East and laneway
- Childrens’ play elements - train, carousel, play area
- Sports field
- Back stop for the baseball diamond
- Underpass - under old bridge along Spadina Crescent at north end of park
- Surface drainage swales
- Parking lots
- Picnic area
- Community gardens

PROJECT SUGGESTIONS

1 PHOTO ESSAY OF THE PARK

PARK SITE	The whole park
PRIMARY AUDIENCE	All of Saskatoon
MEDIA	Photography
TYPE	For display on the City’s website, in publication, in a gallery space, at City Hall or other civic buildings
SELECTION PROCESS	Open call for credentials including past work
EQUIPMENT IN PARK	None
CONSIDERATIONS	Set up access for the artist to all construction sites and processes in the park A multi-year project

Commission an artist with a photography-based practice to capture Kinsmen Park through its re-development process. The work would become part of telling the story of Kinsmen Park—its past, present and future—to the citizens of Saskatoon and, as such, could form the basis of an outreach program about the park and the revitalization process. An option would be to commission a new photographer for each phase of the project. This body of work will capture the park at various stages of its change and become a civic visual record of this important space within the city.

ONLINE EXAMPLES	<i>Link</i> , Peter de Lory for Sound Transit
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2 AUDIO WORK FOR THE PARK

PARK SITE	The whole park. Sites with interesting acoustic possibilities are under the Spadina bridge and under the new land bridge
PRIMARY AUDIENCE	All park visitors
MEDIA	Audio / Sound
TYPE	Experience-based work, either sited or mobile, possibly seasonal
SELECTION PROCESS	Curated invitational call
EQUIPMENT IN PARK	Sound system, speakers, and activation equipment located throughout the park as per the artist’s direction iPods which get loaned to park visitors from a central location within the park, such as the concession stand (visitors would leave a driver’s licence or other form of security)
CONSIDERATIONS	Participation of the concession staff or other business or organization in the Mendel building

Commission a mobile sound-based artwork for park visitors which takes visitors on a journey through the park. Another option is to commission a sited audio piece that is on an intermittent timed loop, or activated by the movement of passersby, or the arrival a person to a particular place.

ONLINE EXAMPLES	<i>Digital Empathy</i> , J. Swartz, <i>Her Long Black Hair</i> , J. Cardiff
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PROJECT SUGGESTIONS

3 RIPARIAN ENHANCEMENT PROJECT

PARK SITE	About the riparian zone in the park, but not necessarily sited in this zone, could be elsewhere in the park
PRIMARY AUDIENCE	All park visitors
MEDIA	Various
TYPE	Issue-based, process- based, educative / public awareness component
SELECTION PROCESS	Open call for credentials including past work
EQUIPMENT IN PARK	Various
CONSIDERATIONS	Interaction with the landscape architectural team and any other consultants hired to deal with the riparian zone enhancement effort

Commission an artist to develop an artwork that in some way deals with the effort in the park revitalization process to enhance the riparian habitat of the river bank. The idea of transformation may come into play with this work. The project could take on any number of forms, expressions and media. It would have a presence in the park and could also have an external presence as part of a dispersal process either online or in publication form.

ONLINE EXAMPLES	<i>Urban Wildlife Observation Unit, Mark Dion</i> <i>Wildurban, Charles Fox</i>
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4 THE AGS - MENDEL LINK PROJECT

PARK SITE	Kinsmen Park to River Landing
PRIMARY AUDIENCE	All of Saskatoon
MEDIA	Various
TYPE	A programmed art walk linking the current Mendel Art Gallery to the new AGS,
SELECTION PROCESS	Curated by the Mendel (AGS) curating team
EQUIPMENT IN PARK	Various
CONSIDERATIONS	Temporary and permanent artwork

With over 180,000 visitors in 2010 alone, the Mendel Art Gallery has developed a significant legacy of cultural experience that, for the citizens of Saskatoon, is located in Kinsmen Park. In consideration of this legacy, this project proposes to develop a cultural link, in the form of an art walk, from the new AGS site to Kinsmen Park along Spadina Crescent and the Meewasin trails. New temporary and permanent public artwork would be commissioned as part of an on-going program of changing artwork along the river between these two culturally significant sites within the city. .

ONLINE EXAMPLES	Many cities develop public art walks supported by an annotated map to support viewing public art on foot. The Mendel legacy component makes this project unique.
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PROJECT SUGGESTIONS

5 SOUTH SASKATCHEWAN RIVER PROJECT

PARK SITE	About the river, possibly even on the river itself, on the river boat, in the park with possible extensions to other sites in the city such as the bridges
PRIMARY AUDIENCE	All of Saskatoon
MEDIA	Film, video, book, web-based, sculptural, installation, interactive
TYPE	Various
SELECTION	Various
CONSIDERATIONS	Possible coordination will be required with the river boat tour company

Commission a series of artworks which deal with the South Saskatchewan River—its histories, its physiographic and morphological characteristics, the cultural terrain it traverses along its route from headwaters to end point, its role in the founding of Saskatoon as a city, its presence in the city and its relationship with the city and the province—the story of the life of this river.

ONLINE EXAMPLES	<i>Time After Time Along the River</i> , Marie Jose Burki <i>Speaking of the River</i> , Constance De Jong <i>Study of a River & Two Rivers</i> , by Peter Hutton <i>Green River & Waterfalls</i> by Olafur Eliasson <i>Another Water</i> , Roni Horn Thames and Hudson Rivers Project, PADT & Minetta Brook
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6 THE CHANGING PARK PROJECT

PARK SITE	The whole park
PRIMARY AUDIENCE	All park visitors
MEDIA	Various
TYPE	Issue-based, process-based, educative / public awareness component
SELECTION PROCESS	Open call for credentials including past work
EQUIPMENT IN PARK	Various
CONSIDERATIONS	Interaction with the landscape architectural team and any other consultants hired to deal with art sites in the park. City archives may play a role in furnishing historical information. The dispersal of this project throughout the community would support the on-going re-vitalization process of Kinsmen Park.

Commission a series of temporary and/or permanent artworks, including sculpture, installation, images and audio for presentation in Kinsmen Park, online and in publication which deal with the natural and human-driven processes of change in the park. These artworks could address all time frames—pre-historical, historical, the present and the future.

ONLINE EXAMPLES	<i>How to Get Things Done</i> , Jordan Schwab, <i>Changing Times</i> , Vancouver
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PROJECT SUGGESTIONS

7 THE PLAY PROJECT

PARK SITE	The whole park
PRIMARY AUDIENCE	All park visitors, but particularly children
MEDIA	Various
TYPE	Interactive, interpretive
SELECTION PROCESS	Open call for ideas
EQUIPMENT IN PARK	Various
CONSIDERATIONS	Interpretive elements or guides for children could be created by artists and or curators. Distribute guides to local schools.

Commission an artist to develop an interactive artwork that in some way deals with the idea of play. This work would focus on physical interaction. Another component would be to provide an interpretive element for children to interact with the existing artwork that is already in the park. Consider waiting to launch this type of project until there are more artworks developed for the park. Given the focus of the park on children's play, consider creating an interpretive guide for children for each new artwork developed in the park.

ONLINE EXAMPLES	<i>Skulptur Projekte Münster, 2007 Exhibition Guide for Children</i> http://www.skulptur-projekte.de/information/publikationen/
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8 THE PLATFORM PROJECT

PARK SITE	A designated and designed space within the park
PRIMARY AUDIENCE	All park visitors
MEDIA	Various
TYPE	A designed and serviced flexible space within the park to support on-going temporary art projects
SELECTION PROCESS	Curated
EQUIPMENT IN PARK	Lighting, water, drainage, power, paving, free-standing walls, audio, video projection
CONSIDERATIONS	An on-going program of temporary artworks in the park

This space would support the development of public art in Saskatoon by providing a flexible but relatively controlled space for artists to experiment with and investigate expanding their practices to consider the issues and audiences related to the public realm. This space would also begin to cultivate a more educated art audience in the public realm as visitors to the park encounter artists installing their work and begin to become familiar with the aesthetics of contemporary art practice as they engage with the artwork and the artists.

ONLINE EXAMPLES	<i>Offsite, Vancouver Art Gallery</i> Toronto Sculpture Garden
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Figure 46 Cross-country ski trails in Kinsmen Park. Photo by Damien Gabrielson.

PROJECT SUGGESTIONS

9 THE WINTER PROJECT

PARK SITE	The whole park
PRIMARY AUDIENCE	All park visitors
MEDIA	Various
TYPE	Seasonal
SELECTION PROCESS	Open call for credentials including past work
EQUIPMENT IN PARK	Various
CONSIDERATIONS	Park maintenance crews would need to be oriented to any issues relating to the artwork during winter and any possible maintenance work. Also, it would be important that the artwork not impact the use of the Nordic ski trails and tobogganing slopes.

Winter has a powerfully transformative effect on the landscape. Commission an artist to develop a temporary artwork for the winter season. The artwork would need to, in some way, depend on winter conditions. If desired, the work could be repeatable and be re-launched in subsequent winter seasons. The artist will need to consider what degree of interactivity the work will offer the public and design accordingly. If a type of pavilion is made, something to consider is the programming of the space inside the pavilion for more winter artwork.

ONLINE EXAMPLES	<i>The Glacier House Effect versus the Greenhouse Effect, Ice Pavilion, Olafur Eliasson</i>
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ENDNOTES

1. Wallace Stegner, *Wolf Willow*, (New York: The Viking Press, 1962), 7.
2. "Quick Facts," Mendel Art Gallery 2010 Annual Report, 44.
3. Patricia C. Phillips. "Public Constructions," in *Mapping the Terrain: New Genre Public Art*, ed. Suzanne Lacy, (Seattle: Bay Press, 1995), 70.
4. Patricia C. Phillips. quoted in "Evaluating Artistic Quality in the Public Realm." Pam Korza. *On View: Journal of Public Art and Design*, (Spring/Summer 1990), 77.
5. "Population Estimate & Projection," Saskatoon.ca. Last modified 30 June 2011. Accessed on 1 November 2011. <http://www.saskatoon.ca/DEPARTMENTS/Community%20Services/PlanningDevelopment/FutureGrowth/DemographicAndHousingData/Pages/PopulationEstimateProjection.aspx>
6. "Quick Facts," Saskatoon.ca. Accessed on 1 November 2011. <http://www.saskatoon.ca/QUICK%20FACTS/Pages/Quick%20Facts.aspx>
7. "University History," USASK.ca. Accessed on 1 November 2011. <http://www.usask.ca/archives/history/chronology.php>
8. "Parks," Saskatoon.ca. Accessed on 1 November 2011. <http://www.saskatoon.ca/DEPARTMENTS/Community%20Services/LeisureServices/Parks/Pages/Parks.aspx>
9. Jeanna South, "Kinsmen Park & Area Master Plan Request for Proposals", (RFP document issued by the City of Saskatoon, January 2011), 4.
10. South, "Kinsmen Park & Area Master Plan RFP", 4.
11. "History," Mendel.ca. Accessed on 1 November 2011. <http://www.mendel.ca/about/history>
12. "Quick Facts," Mendel Art Gallery 2010 Annual Report, 44.
13. South, "Kinsmen Park & Area Master Plan RFP", 4.
14. Excerpt from: South, "Kinsmen Park & Area Master Plan RFP", 5.
15. Excerpt from: South, "Kinsmen Park & Area Master Plan RFP", 5.
16. South, "Kinsmen Park & Area Master Plan RFP", 4.
17. South, "Kinsmen Park & Area Master Plan RFP", 3.
18. South, "Kinsmen Park & Area Master Plan RFP", 3.
19. Excerpt from: South, "Kinsmen Park & Area Master Plan RFP", 3.
20. Space2Place Landscape Architects. "Kinsmen Park & Area Master Plan" draft version 7, August 2011, 68.
21. Linda Milrod, Foreword to *The Flat Side of the Landscape The Emma Lake Artists' Workshops Exhibition Catalogue*, ed. John O'Brian, (Saskatoon: Mendel Art Gallery, 1989), 9.
22. Roald Nasgaard, "Saskatoon and Edmonton after 1970," in *Abstract Painting in Canada*, (Vancouver: Douglas & McIntyre Ltd., 2007), 292. Artwork media and dimensions: Acrylic enamel on aluminum and Plexiglas, 35.6 x 137.8 x 14.6 cm.
23. Roald Nasgaard, "Saskatoon and Edmonton after 1970," in *Abstract Painting in Canada*, 287.
24. "Gallery 2008," EpicIndian.com. Accessed on 1 November 2011. <http://www.epicindian.com/gallery08-thunderbird1.html>. Artwork media and dimensions: Circuit boards, plywood, acrylic paint, 47 7/8 x 116 1/2 x 3 7/8 inches. Photo credit: Don Hall.
25. Denise Markonish, email message to author, 30 August 2011.
26. Patrick Macaulay, email message to author, 14 September 2011.
27. "Young and Old City," Muenster.de. Accessed on 1 November 2001. http://www.muenster.de/en/young_old_city.php
28. "Muenster in Figures," Muenster.de. Accessed on 1 November 2011. http://www.muenster.de/en/muenster_in_figures.php
29. "Cycling Capital," Muenster.de. Accessed on 1 November 2011. http://www.muenster.de/en/cycling_capital.php
30. "Young and Old City," Muenster.de. Accessed on 1 November 2001. http://www.muenster.de/en/young_old_city.php
31. Cameron Abadi, "Sculpture Invasion in Münster, The Art world Goes Provincial," Spiegel Online International, 21 June 2007. <http://www.spiegel.de/international/germany/0,1518,489654,00.html>
32. "Künstler / Artists 77," Iwl.org Archive. Accessed on

ENDNOTES

- 1 November 2011. <http://www.lwl.org/skulptur-projekte-download/muenster/77/index.htm>
33. "Press," Skulptur-Projekte.de, Skulptur Projekte Münster 07 Press Release dated 27 September 2007. Accessed on 1 November 2011. http://www.skulptur-projekte.de/skulptur-projekte-download/pdf/PM_Abschluss-PK_en_07-09-28.pdf
34. Cameron Abadi, "Sculpture Invasion in Münster, The Art world Goes Provincial," Spiegel Online International, 21 June 2007. <http://www.spiegel.de/international/germany/0,1518,489654,00.html>
35. Miwon Kwon, *One Place After Another*, (Boston: MIT Press, 2004), 54.
36. "History," TorontoSculptureGarden.com, Accessed on 1 November 2011. <http://www.torontosculpturegarden.com/history.htm>
37. Rina Greer, email message to author, 4 October 2011.
38. "Archive," PublicArtFund.org, Press Releases for Target Art in the Park 2000, 2001, 2002. Accessed on 1 November 2011. <http://www.publicartfund.org/sitemap.htm>
39. Excerpt from : "Archived Project," PublicArtFund.org, Tony Oursler *The Influence Machine*. Accessed on 1 November 2011. http://www.publicartfund.org/pafweb/projects/00/target/target_oursler_t_00.html
40. Stewart Desmond, External Affairs Coordinator, Madison Square Park Conservancy. Telephone conversation with the author in June 2007.
41. Excerpt from: "Art / 2007 / Roxy Paine," MadisonSquarePark.org, Accessed on 1 November 2011. <http://www.madisonsquarepark.org/art/roxy-paine-three-sculptures>
42. Diane Shamash, "Introduction" in *Watershed The Hudson Valley Art Project*. ed. Miwon Kwon. (New York: Minetta Brook, 2002), 13-16.
43. "Projects" MinettaBrook.org. Accessed in 2007 prior to website being taken down and the folding of the organization due to the death of the Director, Diane Shamash.
44. "Projects" MinettaBrook.org.
45. Excerpt from: Jeffrey Kastner, "Watershed: Various Sites - Hudson River Valley," *Art Forum* (October 2003). http://findarticles.com/p/articles/mi_m0268/is_2_42/ai_109023365/
46. "Projects" MinettaBrook.org.
47. "Archived Project," PublicArtFund.org, Janet Cardiff, *Her Long Black Hair*, 2005. Accessed 1 November 2011. <http://www.publicartfund.org/pafweb/projects/05/cardiff/cardiff-05.html>
48. "Flooded Chambers Maid," JessicaStockholder.info, Accessed on 1 November 2011. <http://www.jessicastockholder.info/albums/flooded-chambers-maid>
49. Excerpt from: Carol Kino, "Go Ahead, Play With (and on) the Art," *New York Times*, 12 June 2009. Accessed 1 November 2011. <http://www.nytimes.com/2009/06/14/arts/design/14kino.html?pagewanted=all>
50. "Archived Project," PublicArtFund.org, Mark Dion, *Urban Wildlife Observation Unit*, 2002. Accessed on 1 November 2011. http://www.publicartfund.org/pafweb/projects/02/target/target_dion_f02.html
51. Excerpt from: "Art 21 / Artists/ Mark Dion," PBS.org. Accessed 1 November 2011. <http://www.pbs.org/art21/artists/mark-dion>
52. Excerpt from: "About / Public Art / Swartz," TheHighLine.org, Accessed on 1 November 2011. <http://www.thehighline.org/about/public-art/swartz>
53. Excerpt from interview with artist: "Julianne Swartz, Digital Empathy, The High Line, New York," YouTube.com, Accessed 1 November 2011. <http://www.youtube.com/watch?v=Pjfn7Db714g>
54. Excerpt from: "Projects / Pulse Park," Lozano-Hemmer.com, Accessed on 1 November 2011. http://www.lozano-hemmer.com/pulse_park.php
55. Hilde Hein, "Symposium: Public Art, What is Public Art? Time, Place, and Meaning," *The Journal of Aesthetics and Art Criticism*, Vol. 54, No. 1 (Winter, 1996), 1-7.
56. Patricia Fuller. quoted in "Evaluating Artistic Quality in the Public Realm." Pam Korza. *On View: Journal of Public Art and Design*, (Spring/Summer 1990), 71.

REFERENCES

PUBLISHED REFERENCES

PUBLIC ART & ART REFERENCE PUBLICATIONS

Tom Eccles et al, ed. *Plop: Recent Projects of the Public Art Fund*. New York: Merrell Publishers, 2004.

Rina Greer, ed. *Toronto Sculpture Garden*. Toronto: Toronto Sculpture Garden, 1998.

Miwon Kwon. *One Place After Another*. Boston: MIT Press, 2004.

Miwon Kwon, ed. *Watershed The Hudson Valley Art Project*. New York: Minetta Brook, 2002.

Suzanne Lacy, ed. *Mapping the Terrain: New Genre Public Art*. Seattle: Bay Press, 1995.

Malcolm Miles and Tim Hall, ed. *Urban Futures: Critical Commentaries on Shaping the City*. New York: Routledge, 2003.

Roald Nasgaard. *Abstract Painting in Canada*. Vancouver: Douglas & McIntyre 2007.

Alex Neill and Aaron Ridley, ed. *Arguing About Art*. New York: Routledge, 2008.

EXHIBITION CATALOGUES

Jen Budney, ed. *Flatlanders Saskatchewan Artists on the Horizon*. Saskatoon: Mendel Art Gallery, 2008.

Anne Campbell, ed. *Mind the Gap!* Regina: Dunlop Art Gallery, 2009.

Michelle LaVallee. *Wally Dion*. Regina: MacKenzie Art Gallery, 2009.

John O'Brian, ed. *The Flat Side of the Landscape: The Emma Lake Artists' Workshops*. Saskatoon: Mendel Art Gallery, 1989.

LITERATURE

Wallace Stegner. *Wolf Willow*. New York: The Viking Press, 1962.

Rudy Weibe. *The Scorched-Wood People*. Markham: Fitzhenry & Whiteside, 2005.

Rudy Weibe. *The Temptations of Big Bear*. Toronto: Vintage Canada, 1999.

ONLINE REFERENCES

PUBLIC ART PROGRAMS FOR URBAN PARKS AND OPEN SPACES

Madison Square Art: www.madisonsquarepark.org/art

Skulptur Projekte Münster: www.skulptur-projekte.de

New York Department of Parks & Recreation, Art in the Parks Program: www.nycgovparks.org/art

Target Art in the Park, 2000: www.publicartfund.org/pafweb/projects/00/target/target_oursler_t_00_release.html

Target Art in the Park, 2001: www.publicartfund.org/pafweb/projects/01/target/target_01.html

Target Art in the Park, 2002: www.publicartfund.org/pafweb/projects/02/target/target_f02.html

The High Line: www.thehighline.org/about/public-art

Toronto Sculpture Garden: www.torontosculpturegarden.com

Vancouver Art Gallery Offsite: www.vanartgallery.bc.ca/the_exhibitions/public_art.html

EXHIBITIONS FEATURING ARTISTS FROM SASKATCHEWAN

Dunlop Art Gallery: *Mind the Gap!* www.mindthegap.dunlopartgallery.org/

Harbourfront Centre: *World Routes: Love, Saskatchewan COMBINE*: www.harbourfrontcentre.com/visualarts/yorkquaycentreYQC10_3.cfm

MASS MoCA: *Oh, Canada*: www.massmoca.org/event_details.php?id=663

Mendel Art Gallery: *Flatlanders: Saskatchewan Artists on the Horizon*: www.mendel.ca/wordpress/?p=166

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APPENDIX A - PUBLIC ART CONTEXT

1

TITLE	<i>Child's Play (walking)</i>
ARTIST	Robert Iveson & Tommie Gallie
MATERIAL	Painted Steel
YEAR	1982
COLLECTION	City of Saskatoon, Permanent

Commissioned to celebrate 100 years of settlement in Saskatoon, this artwork consists of five groupings of children's figures of varying ages playing in the park. The figures are cut out of steel plate and painted. Although experienced in elevation, their two-dimensionality gives them an almost figure-ground quality and certainly sets them up to be experienced as silhouettes at night. The various groupings of figures are having a tug-of-war, running, playing a game, walking in pairs, and a single child sitting under a tree reading. The inscription on the plaque reads: "A Century Saskatoon Project dedicated to the Children of our City, our hope for the future."

2

TITLE	<i>Ascending Cubes</i>
ARTIST	Brian Newman
MATERIAL	Steel
YEAR	1968
COLLECTION	The Mendel Art Gallery
NOTE	Recently removed due to damage

3

TITLE	<i>Five Altar Pieces</i>
ARTIST	Bill Epp
MATERIAL	Dolomite Stone
YEAR	1985
COLLECTION	City of Saskatoon, Permanent

This work by Bill Epp was originally made in 1985. After Epp passed away in 1995, the Prairie Sculptors Association, of which he was a founding member, donated this work to the City in 1997 to commemorate the contribution he made to the local art community, particularly for his role as a mentor to young artists in Saskatoon.

4

TITLE	<i>Sergeant Hugh Cairns, V.C.</i>
ARTIST	Unknown (Italy)
MATERIAL	Marble on a granite base
YEAR	1921
COLLECTION	City of Saskatoon, Permanent

The inscription on the plinth reads: "Erected by the Saskatoon Football Association and Citizens in memory of our fallen comrades 1914 - 1918" The inscription at the base of the marble figure reads "Sgt. Hugh Cairns, V.C. D.C.M." Around the base of the statue, the names of seventy-five Saskatoon soccer players are inscribed who were killed in World War I.

5

TITLE	<i>Child's Play (running)</i>
ARTIST	Robert Iveson & Tommie Gallie
MATERIAL	Painted Steel
YEAR	1982
COLLECTION	City of Saskatoon, Permanent

6

TITLE	<i>Tribute to Youth</i>
ARTIST	Bill Epp
MATERIAL	Bronze
YEAR	1989
COLLECTION	City of Saskatoon, Permanent

This work was installed to commemorate the 1989 Jeux Canada Games and it depicts five children forming a sphere. Donated by the Mitchell Family and management and staff at Intercontinental Packers Ltd.

APPENDIX A - PUBLIC ART CONTEXT

7

TITLE	<i>Gentle Rain</i>
ARTIST	Douglas Bentham
MATERIAL	Steel
YEAR	1995
COLLECTION	The Mendel Art Gallery

8

TITLE	<i>Child's Play (playing a game)</i>
ARTIST	Robert Iveson & Tommie Gallie
MATERIAL	Painted Steel
YEAR	1982
COLLECTION	City of Saskatoon, Permanent

9

TITLE	<i>Stock and Rhyme</i>
ARTIST	Clay Ellis
MATERIAL	Steel
YEAR	1993
COLLECTION	The Mendel Art Gallery

10

TITLE	<i>Joni Mitchell Mural</i>
ARTIST	Sharie Headon
MATERIAL	Paint, Traffic Control Box
YEAR	2006
COLLECTION	SCYAP Urban Canvas Project

This work, a mural of Joni Mitchell with several musical instruments in recognizable Saskatoon locales, is part of a series of murals on traffic control boxes throughout Saskatoon as part of SCYAP's Urban Canvas Project. The artist who painted this one, Sharie Headon, also painted two others after graduating from SCYAP in 2006.

11

TITLE	<i>Denny Carr C.M.</i>
ARTIST	Hans Holtkamp
MATERIAL	Bronze
YEAR	2000
COLLECTION	City of Saskatoon, Permanent

This work is a commemorative piece to long-time Saskatoon radio host Denny Carr who passed away in 1999. He made a significant contribution to the community through volunteer work and was a recipient of the Order of Canada in 1999. The sculpture was donated the Friends of Denny Carr Committee.

12

TITLE	<i>Unfurled</i>
ARTIST	Douglas Bentham
MATERIAL	Welded & burnished
YEAR	2000
COLLECTION	City of Saskatoon, Permanent

Sited on a traffic island on axis with the north end of the University Bridge, this large sculpture with a tree-like form offers a different view from every angle. As drivers are coming across the bridge in the morning, the burnished stainless steel surface glints in the bright prairie sun.

13

TITLE	<i>Heart of Balzac</i>
ARTIST	Peter Hide
MATERIAL	Steel
YEAR	1993
COLLECTION	The Mendel Art Gallery

APPENDIX A - PUBLIC ART CONTEXT

14

TITLE	<i>Happy Outlook</i>
ARTIST	Peter Hide
MATERIAL	Steel
YEAR	1992
COLLECTION	The Mendel Art Gallery

15

TITLE	<i>Child's Play (sitting under tree)</i>
ARTIST	Robert Iveson & Tommie Gallie
MATERIAL	Painted Steel
YEAR	1982
COLLECTION	City of Saskatoon, Permanent

16

TITLE	<i>Pelican</i>
ARTIST	Bevin Bradley
MATERIAL	Painted Steel
YEAR	2010
COLLECTION	City of Saskatoon & Others

17

TITLE	<i>Untitled</i>
ARTIST	Peter Hide
MATERIAL	Steel
YEAR	1995
COLLECTION	The Mendel Art Gallery

18

TITLE	<i>Rt. Hon. Ramon John Hnatyshyn</i>
ARTIST	Bill Epp
MATERIAL	Bronze
YEAR	1992
COLLECTION	City of Saskatoon, Permanent

This work is a commemorative piece to Governor-General Hnatyshyn who served at Governor General from 1990 to 1995 and passed away in 2002. The plaques on the plinth also celebrate the 125th anniversary of Confederation and the 100th anniversary of Ukrainian settlement in Saskatchewan. This monument is located near the Ukrainian Museum in Saskatoon. This work was donated by the Ukrainian Congress and Spirit of Service Committee.

19

TITLE	<i>Child's Play (tug-of-war)</i>
ARTIST	Robert Iveson & Tommie Gallie
MATERIAL	Painted Steel
YEAR	1982
COLLECTION	City of Saskatoon, Permanent

20

TITLE	<i>Untitled</i>
ARTIST	James Korpan
MATERIAL	Steel
YEAR	1968
COLLECTION	The Mendel Art Gallery

APPENDIX B - MEDIA REVIEWS

LOVE, SASKATCHEWAN: COMBINE
HARBOURFRONT CENTRE, TORONTO, ON

Leah Sandals, "Hipster Fairytales", *National Post*,
Saturday 17 July 2010

The current art Zeitgeist tends to favour works and artists who abandon specific times and places for international art histories and trends. This de facto standard of placelessness makes a show like Combine, which focuses on 18 artists from Saskatchewan, all the more intriguing. The sheer scale of some of these artworks, like Alison Norlen's terrific, wall-sized drawing of an old rollercoaster, evokes the vast amounts of space available on the prairies, both in the studio and under the sky. Bruce Montcombroux's playful sculptural redos of a houseboat and a skidoo, along with Clint Neufeld's pristine ceramic reproductions of massive, greasy machine engines, aren't afraid of taking up space or referencing rural life either. (Neufeld overplays his juxtapositions, but still impresses.) Amalie Atkins' silent-film-like videos set sweet, hipster-fairytale narratives against striking long-grass coulees, while Stacia Verigin magically crafts miniature forests out of mere sawdust. Also, Joi T. Arcand plays up prairie politics, transforming English signage in SK cityscapes into Plains Cree versions. Of course, there's a lot more than geographic determinism at work here — to imply otherwise would be dangerous. All these producers do reflect more global streams of creative practice. But it's still damn fun to figure where wheat pools and bunny hugs (look it up, Hogtownner!) might also land in the mix.

Terrence Dick, Akimblog, 5 August 2010

While you're down at Harbourfront Centre, be sure to visit the York Quay Gallery for curator Patrick Macaulay's late summer show Combine. This collection of eighteen artists from Saskatchewan is a fine and eye-opening experience. Some of these folks might be familiar names: Alison Norlen contributes three fantastic wall-sized paintings of incredibly intricate amusement park rides and Tyler Brett's solo work looks a lot like his collaborations with Tony Romano as T&T. Brett is also represented by an alcove diorama plus photos and video documenting his and Serena McCarroll's Bruno, SK gallery/café/music venue All Citizens. New names to me include Amalie Atkins, whose surreal videos are both

creepy and whimsical in a way that is reminiscent of the Royal Art Lodge, and Clint Neufeld, whose ceramic farm engines on antique furniture are bold statements that manage to be ugly and beautiful at the same time. The solid body of strong work here has me wondering if Saskatoon will be the next Winnipeg. Curators, book your tickets now.

<http://www.akimbo.ca/akimblog/?id=405>

FLOODED CHAMBERS MAID, by Jessica Stockholder,
MADISON SQUARE ART, NEW YORK, NY

Carol Kino, "Go Ahead, Play With (and on) the Art,"
New York Times, 14 June 2009

It was a brilliant spring morning in Madison Square Park, and the uptown end of the central lawn was already crowded with children playing on a multicolored triangular platform that looked as though it had been made from giant Lego blocks. The children clambered up and down, tossing balls, yelling gleefully and digging in a square of blue rubber mulch that lay on the ground beneath this structure. Their mothers and baby sitters lounged alongside them, sitting on the platform or watching from a set of adjoining turquoise bleachers.

At first glance this assemblage might have been mistaken for a particularly inventive playground. But it was actually a piece by the artist Jessica Stockholder, who was watching from the sidelines with Debbie Landau, the president of the Madison Square Park Conservancy, which commissioned the work. Both of them laughed in amazement at the unfolding spectacle.

For more than 25 years Ms. Stockholder has been celebrated for site-specific sculptures and installations that challenge boundaries, blurring the distinction among painting, sculpture and environment, and even breaching gallery walls by extending beyond windows and doors. But with this piece, in the park through Aug. 15, she seems to have crossed another sort of border.

"I've never worked in a place like this, with all these people and kids," Ms. Stockholder said happily, over the din of children's voices. "I didn't realize it would be such

APPENDIX B - MEDIA REVIEWS

a magnet, that it would be the thing people really wanted to sit on, and that kids would like it so much."

Ms. Landau said she too had been struck by the installation's instant allure. "People discovered it immediately," she said, noting that its mood changes throughout the day, with the morning rush of children giving way to a more adult lunchtime and early evening crowd. Even before the piece opened to the public, she added, she realized that it would pose an operational challenge. "The minute the blue mulch went down," she said, "we e-mailed Jessica and said: 'This is a sandbox. What kid wouldn't want to play?' And in fact by the next day a kid had made mounds and had a truck in there." (The solution: Park employees rake and reshape the mulch twice a day.)

The piece, called "Flooded Chambers Maid" — a play on the concept of women's work and service work, as well as art making — has much in common with Ms. Stockholder's gallery installations. It incorporates industrial materials and ready-made manufactured objects, and its brightly colored parts combine to create something of a three-dimensional abstract painting in space.

Although elements like the bleachers and the steel-and-fiberglass gridded segments that make up the platform were fabricated months in advance, the piece feels as though it were invented on the spot. And part of it was: beyond the bleachers lays a garden that Ms. Stockholder planted in a somewhat free-form fashion in April, with the help of Christy Dailey, the conservancy's chief gardener. The result suggests a D.I.Y. take of a Constructivist painting, built from plants, flowers and upturned buckets and bins from Wal-Mart.

With its focus on geometry this work also suggests a nod to the surrounding architecture and streets, especially the triangular Flatiron Building, which lies just south of the park. But that wasn't what Ms. Stockholder consciously intended. "I don't sit down and think about things in that way," she said. "I walked around the park and spent time thinking about it. I made this piece in response to the patterning that was already here."

In a sense this is a golden moment for Ms. Stockholder, who recently turned 50. Although she has been showing here since 1985, soon after receiving her master of fine arts degree from Yale, she has three simultaneous exhibitions of her work on view this month. As well

as the park piece there is a sculpture show, "Sailcloth Tears," through June 20 at Mitchell-Innes & Nash in Chelsea. And "Swiss Cheese Field," a suite of monoprint constructions based on Ms. Stockholder's drawings for the park project, can be seen through July 2 at Senior & Shopmaker, a gallery overlooking the site. As Ms. Stockholder said, "We took advantage of the moment."

She produced the prints during a handful of frenzied sessions at Two Palms, a SoHo print shop, working on several at once, with technologically sophisticated machinery and a several crew members. "It's one of the more exhausting things I've done," she said.

But the sculptures were made the way she usually works: alone in her studio near Yale, where she is director of the graduate sculpture department. (She lives in an adjoining house with her husband, Patrick Chamberlain, a psychologist, and Charles, their 13-year-old son.)

"I don't have assistants and things in the studio," she said. Although she works with "anything I can buy and carry," she frequently allows herself to be limited by the material she already has on hand, like buckets, bolts of cloth, paint and light bulbs, and lets her intuition guide her. "What I like about it is I don't know what I'm doing," she said. "I make things complicated for myself and chaotic, so I feel unsettled, and then the challenge is to make something structured and complete emerge from that."

The park project offered yet another challenge, she said: "It involved much more planning."

That planning began about three years ago when Ms. Landau, a longtime fan of Ms. Stockholder's work, mentioned her name to the committee that advises the conservancy's art program, Mad. Sq. Art. (Since 2004 it has commissioned work by living artists including Sol LeWitt, Roxy Paine and Ursula von Rydingsvard.) Ms. Landau suggested Ms. Stockholder because "I loved her use of color, the vividness, the bold collages, the geometry," she said. "What was also great was that we'd never had anything that you could quite call an installation before."

The nomination was ardently supported by another committee member, Adam D. Weinberg, the director of the Whitney Museum of American Art. He first met Ms. Stockholder in 1990 when he included five sculptures

APPENDIX B - MEDIA REVIEWS

in a display of new appropriation art at the museum's Equitable Center gallery. One piece, he recalled, incorporated burlap, painted Sheetrock, an old car door and a tiny orange light bulb.

"What I immediately loved about them is that I couldn't figure them out," he said. "They were somewhere between painting and sculpture and environment. The work also draws on the whole history of art from Matisse to Rauschenberg, Smithson and Gordon Matta-Clark."

Mr. Weinberg was also uniquely familiar with Ms. Stockholder's rare alfresco projects. In 2002, as director of the Addison Gallery of American Art in Andover, Mass., he commissioned her first outdoor work made in this country. (The conservancy project is her second.) Made for a show called "SiteLines: Art on Main," it was installed on a vista landscaped by Frederick Law Olmstead and involved armchairs, a park bench and bleachers, and encouraged visitors to become part of the piece by luring them to sit and enjoy the view. "Her work makes you very aware of your own physical presence in the environment," he said.

As for Ms. Stockholder, the current project came as a welcome antidote to traveling around the world making museum and gallery projects. "It wasn't just like arriving and making something in two weeks and leaving," she said. "It seemed to have roots in a community and a dialogue that are a little bit more substantive."

So in summer 2007 she embarked on a creative process that for her was quite atypical. It involved making drawings, building a model and working with a cast of dozens: as well as the 23-member conservancy staff, the team included a production manager, a fabrication manager, two engineers and maintenance, installation and gardening crews.

There were city building codes to worry about. "Debbie and I talked a lot about the size of the holes in these gratings," Ms. Stockholder said. "They couldn't be too large, because little kids would be likely to be running around, and you didn't want their feet to get stuck, and we had to think a lot about the edges of things and making sure they weren't sharp." Because the platform could be only so high without a railing, she made a virtue of that restriction by positioning it at seating level.

There was also a budget of \$300,000, which clocks in as the priciest in the conservancy's history (although it's a far cry from the cost of some other recent public artworks, like Olafur Eliasson's \$15.5 million "New York City Waterfalls" in 2008).

After the initial quotes came in, Ms. Stockholder let her imagination run away with her, coming up with ideas for more elaborate elements, like a more lushly planted garden. But last fall, after the economy tanked, her ambitions had to be reined in. Although she stuck to a couple of wish-list items, she impressed the team with her willingness to compromise on many more, from the vinyl coating for the bleachers (largely replaced by commercial oil paint) to the number of plants (scaled down). "She's a very easy artist to work with," said Ms. Landau.

But Ms. Stockholder said she took these constraints as inspiration. "In some way that's what the work is about," she said. "I work in response to the limitations of any situation and in relationship to what's possible." Besides, she added, the project had given her new opportunities. "In a park," she said, you are not working with studio materials or a flat piece of paper. You have grass, and the people and the city and the daylight."

A version of this article appeared in print on June 14, 2009, on page AR24 of the New York edition.

<http://www.nytimes.com/2009/06/14/arts/design/14kino.html?pagewanted=all>

A7 UTILITY UPGRADE MEMO

Appendix 7 includes an assessment of the existing utilities, (age, material, design capacity, useful life/remaining life) and improvements required to service concept facilities, upgrades for capacity improvements, and rehabilitation options for utilities that are nearing the end of their useful lives.



November 25, 2011

File: 20114888.00.E.03.00

Mike Teed
Landscape Architect
Space2place Design Inc.
#309 - 318 Homer Street
Vancouver, BC V6B 2V2

Re: KINSMEN PARK MASTER PLAN INFRASTRUCTURE ASSESSMENT AND CLASS D COST ESTIMATE

Dear Mike:

Associated Engineering (AE) was contracted by Space2place to provide Municipal Infrastructure guidance and review of the Kinsmen Park Master Plan Report. The following summarizes the impacts of the proposed upgrades for the Short Term, Near Term and Long Term, as described in the Draft Report (version 9), on the existing Municipal Infrastructure.

1 EXISTING UTILITIES

1.1 WATER SUPPLY AND DISTRIBUTION

1.1.1 Mains

The Study Area is bounded by watermains on 25th Street East, 5th Avenue North, and Queen Street. Three watermain segments are located in the study area:

- A 300 mm, cast iron (1949) main extending north along Kinsmen Avenue from 25th Street East to the south boundary of the City Hospital property
- A main parallels the south property line of City Hospital connecting to 5th Ave North and Queen Street, and
- A 150 mm, asbestos cement (AC) (1964) main that extends from the Kinsmen Avenue main and dead ends at the Mendel.

1.1.2 Fire Hydrants

Fire hydrants are located along Kinsmen Ave, along the south boundary of the City Hospital property and in front of the Mendel. The condition of the hydrants on Kinsmen Ave may be assessed, but should be replaced in conjunction with the development of parking spaces on Kinsmen Ave. The existing hydrants do not warrant salvage as they are



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Mike Teed
Space2place Design Inc.
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non-current models and repair parts have limited availability. The hydrants at City Hospital should not require replacement as they appear to be on hospital property and are current models. The hydrants at the Mendel should be replaced as they are non-current models, however there are no upgrades planned that would be damaged if the hydrants were replaced in the future.

1.1.3 Connections to the water mains provide water service to:

- **Mendel**- Continuous use
- **Concession** - Seasonal use
- **Kinsmen Play Village** - Seasonal use
- **Park Irrigation** - Seasonal use, manual system operated during day
- **YWCA/King Edward Place** - Continuous use, these buildings are serviced from the watermain on Kinsmen Avenue
- **Shakespeare Washroom** - Seasonal service, reported to be a shallow service from the Mendel. This should be confirmed for the possibility that the washroom is serviced from an irrigation loop
- **Old Restroom** – A concrete slab located northwest of the Hugh Cairns Memorial that appears to be the foundation of a restroom building due to presence of toilet flanges and proximity of sanitary sewer. It is likely that a water connection existed to service the facility and the connection may have been abandoned when the building was demolished.

1.1.4 System Upgrades

1.1.4.1 Short Term

- Cut off existing water connections for Kinsmen Play Village and Old Restroom
- Loop watermain from near the Mendel site to a nearby main such as Queen Street
- Install two (2) 50 mm dia potable water service connections (50-60 gpm) for proposed Water Feature
- Install four (4) 50 mm dia seasonal potable water service with quick couplers capable of 50-60 gpm for festival site, two couplers per connection box



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Mike Teed
Space2place Design Inc.
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- Upgrade Irrigation System with automated controls and reconfigured irrigation zones to reflect proposed park uses, keeping in mind that water for irrigation may be supplied from the river in the future.

1.1.4.2 Near Term

- Install new water connections suitable for winter service, self draining curbboxes with large sumps
- Install new seasonal water connections for community gardens.
- Install irrigation upgrades; additional zones.

1.1.4.3 Long Term

- Install new water service connection for proposed Parks Operations Shed
- Install new potable water service for amphitheatre and amphitheatre restroom.

1.1.5 Considerations

The mains extending along Kinsmen Ave and extending toward the Mendel are reported to be AC, however the use of this material was not common in the period that the line was constructed. Typical materials for this period would include thin wall cast iron or ductile iron, both of which are prone to corrosion failure. The City should confirm material type, age, condition of these mains and identify opportunities for rehabilitation or replacement.

The main extending toward and servicing the Mendel may be prone to water quality degradation during the winter periods. The period that water remains in the main will increase as the water demands due to irrigation and the concession cease. Chlorine residuals present in potable water will decay with time and may result in development of bacteriological films that will affect water quality. The watermain servicing the Mendel should be 'looped' to help maintain chlorine residuals and water quality.

The Shakespeare restroom facility requires a potable water source, however there are no watermains identified in the vicinity of the site. The facility was reported to be connected to the Mendel with a shallow service. The City should confirm the source of the washroom water supply in the event that the washroom is connected to an irrigation main and in the event that the Park moves to using non-potable river water for irrigation.

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A fire hydrant located at or near the Concession may be required due to distances between the existing hydrants by Kinsmen Ave, the Mendel and City Hospital.

Parks Branch has expressed interest in using non-potable water supplied from the river for irrigation. An estimated cost of \$325,000 had been provided by Parks during the course of this study. This cost estimate is for the required upgrades to provide automated irrigation in the park. The cost estimate needs to be increased to reflect the changes to the irrigation zones, and the change from potable water to non-potable water sources. Changing the source to non-potable water for irrigation will require new transmission mains, distribution laterals, re-configured irrigation zones, valves and valve pits, and sprinkler nozzles as well as an intake located sufficiently into the river to ensure the supply of water during periods of low river flows and include a pumping structure, power supply, controls, etc. The construction of a river intake will be subject to review and approval of various regulatory agencies. Design considerations will include hydraulics, silt handling and fish screening. It is expected that the costs for construction of a river intake, including engineering design, regulatory approvals and construction will represent a substantial additional investment above the cost estimated provided by Parks. The City should undertake a Life Cycle Cost Analysis for the options of non-potable and potable water supplies. The operational costs using a non-potable water source may provide annual operational savings over a potable water supply, however the annualized capital costs for a non-potable water supply may exceed the annual operational savings provided under that option.

1.2 WASTEWATER COLLECTION

1.2.1 Sanitary Trunk Sewer

A 1050 mm diameter sanitary trunk sewer extends from 26th St and 5th Ave N toward the river, along an alignment that follows the drainage swale. The trunk sewer connects to the Interceptor Sewer at a location approximately midway between Mendel and Queen St. Computer modeling undertaken by the City for a previous study prepared by Associated Engineering indicates that the Trunk sewer is subject to surcharge levels near the intersection of 26th Street and 5th Ave N and near its terminus at the Interceptor.

A 450 mm diameter sanitary sewer parallels the Trunk sewer. The Hospital, Play Village and Concession are connected to the sewer.

A sanitary bypass exists near the terminus of the Trunk sewer. The bypass is valved and the valve should be kept in the closed position. The outfall from the bypass has become damaged and should be repaired.

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1.2.2 Sanitary Collection Systems

There are six collection systems identified within the study area:

- A sanitary sewer main conveys wastewater from the YWCA/King Edward buildings to the trunk sewer at a location near to the west entrance to the study area
- A sanitary sewer conveys wastewater from the Concession to the trunk sewer at a location approximately north of the Concession building
- A sanitary sewer appears to have conveyed wastewater from the Old Restroom to a sanitary main on 25th Street E
- Three sanitary mains that extend from the City Hospital property toward the Trunk Sewer at various points along the property line.

The sanitary sewer that serviced the Old Restroom should be investigated to identify if it has been cut-off. If not, it should be cut-off from the main on 25th Street East and properly abandoned to limit inflow of water due to storm events.

1.2.3 Sanitary Service Connections

- Kinsmen Play Village – The Play Village is reported to have two connections to the 450 mm sewer. The City should confirm the number and location of the existing services
- Mendel – The Mendel is likely connected to the Interceptor sewer or a manhole on the Interceptor due to its proximity to the Interceptor and lack of collection systems in the area
- Shakespeare Restrooms - The restroom facility is likely connected to the Interceptor sewer or a manhole on the Interceptor due to its proximity to the Interceptor and lack of collection systems in the area
- Concession – The Concession is the sole connection on the sanitary collection system that extends north from the Concession toward the Trunk sewer
- Old Restroom – The sanitary connection from the demolished restroom facility may still exist.

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1.2.4 System Upgrades

1.2.4.1 Short Term

- Kinsmen Play Village - Demolition of the Play Village will require that the service connections be cut off
- Water Feature - The Feature will require a sanitary sewer connection for wastewater generated during the Feature's use, however the Water Feature may generate inflow during storm events that should not be discharged to the sanitary sewer
- Typically, the City does not allow service connections directly to the Interceptor. The Mendel and Shakespeare facilities may require sewer service connection upgrades that include a segment of sewer main that would be connected to the Interceptor.

1.2.4.2 Near Term

- Concession building expansion; sanitary upgrades may not be required.

1.2.4.3 Long Term

- Park Operations Shed – The lack of restroom facilities near the Shed's proposed location following the demolition of the Play Village and its associated restroom facilities will require that the proposed Operations Shed be provided with a sanitary sewer connection to accommodate restroom facilities and lunchroom amenities
- Amphitheatre Restrooms – New sanitary sewer connection will be required to service the new restroom facility.

1.2.5 Considerations

The Trunk sewer has been reported to experience surcharge conditions during storm events, however the surcharge conditions were not thought to have resulted in sewer overflow or spill conditions. The City should confirm surcharge levels and assess the risk for spill conditions specifically in those areas accessible to children.

Several of the manholes on the Trunk sewer were constructed with the finished elevation above the adjacent ground. The exposed concrete of the barrels and cones of the



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manholes appear to be in degraded condition and may permit inflow of surface runoff during storm events. The degraded condition of the bell and spigot joints in the manholes may result in spill conditions in the event of surcharge conditions.

Several of the manholes are lacking the newer style of locking manhole covers that are typically installed in public locations.

The Trunk sewer is likely constructed of concrete pipe that can be prone to degradation of the concrete materials that may impact the operation and integrity of the sewer. The City should review the condition and operation of the Trunk sewers to identify those sewer segments that may require replacement or rehabilitation treatments.

The manholes on the sewer system can emit sewer gases that can be offensive. The release of the gases is particularly noticeable at locations where the flow in the sewer experiences turbulent flow and where the flow has been resident in the system for a long period of time such as where the Trunk sewer discharges to the Interceptor, near the Spadina Bridge. The odours from the sewer gases can generate complaints and may impact the user's enjoyment of the proposed Kinsmen Park upgrades. The City should review and monitor the operation of the sewers in the study area to identify opportunities to mitigate the generation and release of sewer gases.

The suspected connection for the Old Restroom should be investigated and confirmed and be cut-off and properly abandoned to limit inflow of storm related water.

1.3 STORMWATER DRAINAGE

1.3.1 Stormwater Conveyance

A minor catchment located west of the study area contributes to flows in a storm sewer system that extends along 26th Street. The system connects to a manhole located in lane west of Kinsmen Play Village and the system continues toward an outfall located in the park.

The outfall has been poorly maintained and appears to be nearly fully obstructed by sediment accumulations and vegetation. This will impact the conveyance capacity of the system and will likely result in overland flows and concentrated erosion in the park. A severely eroded area near the outfall has been fenced off with safety fencing. The fencing should be maintained until the erosion damage can be repaired. Pondered water in the



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eroded area may be generating sewer gas smell and may indicate contamination of surface flows with sanitary flows.

The storm manhole in the lane appears to have an expanded steel grate serving as its frame/cover. The grate appears to permit granular materials from the lane into the storm system. This condition will increase the maintenance required to maintain the capacity of the system. Failure of the storm system will result in overland flows that result in inflow into the adjacent Trunk sewer and impact surcharge levels during storm events.

Local storm systems from the City Hospital property discharge into the swale in the park. The conditions of these outfalls appear to range from good to average.

A local storm system servicing the YWCA/King Edward complexes conveys flow to the northwest, connecting to manhole in lane.

Surface drainage from the segment of Spadina Crescent between Queen Street and the intersection south of the Mendel is conveyed by the roads minor system to catchbasins located on the west side of Spadina Bridge. The catchbasins discharge into the swale below the bridge.

Surface drainage from the segment of Spadina Crescent between 25th Street and the intersection south of the Mendel collects in catchbasins located mid-segment and is conveyed by an undocumented storm sewer that extends toward the Shakespeare site.

Catchbasins documented on 25th Street at Spadina Crescent are non-existent. An identified storm sewer extends from 25th Street to the river outfall on the north side of the University Bridge. The outfall of this system has been eroded and segments of the sewer pipe have separated.

An undocumented storm sewer exists in the access lanes to the Mendel/Shakespeare parking areas. There are 4 catchbasins, two manholes and an outfall at the river located to the north of the Shakespeare site.

A documented storm sewer exists adjacent to the Mendel that terminates at an outfall located on the riverbank near the bridge on the boardwalk.

The storm collections systems discharge to a swale that extends in an easterly direction, running beneath the Spadina Bridge into the River. The swale is interrupted by culvert



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installations at locations where pathways in the park intersect with the swale. The culverts were not observed while in operation, however several of the inlets to the culverts appear to be poorly maintained due to the accumulations of sediment and vegetation. Flow velocities at the outlet of one culvert installation may be excessive as indicated by the erosion at that point.

Water was observed to be ponding below the Spadina Bridge during a recent rainfall. Inspection of the culvert located east of the Spadina Bridge indicated that the extent of the ponding was due to the grating on the inlet to the culvert being obstructed with vegetation and debris that was carried by the surface flow. There appears to be significant deposits of sediment (0.4 m – 0.5 m) at the inlet to the culvert. The outlet of the culvert is the outfall into the river. The outfall appeared to be in good condition and unimpeded by vegetation.

1.3.2 Upgrades

1.3.2.1 Short Term

- Kinsmen Ave Parking – There is no existing storm sewer along Kinsmen Avenue. Surface drainage may be flowing overland toward the storm collection systems located on 25th Street E, or located in the Kinsmen parking area near the Play Village, or overland to the swale running through the park. The expanded parking area on Kinsmen Ave may generate larger volumes and higher rates of runoff. A shallow storm collection system may be required to convey drainage toward the swale
- Mendel Pedestrian Crossing – The proposed raised pedestrian crossing at the Mendel will impact drainage on Spadina Crescent, from the intersection flowing north. Catchbasins will be required on the south side of the raised crossing to intercept drainage. The catchbasins may be connected to the undocumented storm collection system in the Shakespeare parking area
- Play Area / Rides Area – Surface drainage and stormwater collection via subdrains beneath safety surfacing, catchbasins and storm mains routing drainage to swale or toward storm collection system at Mendel Pedestrian crossing
- Parking Area North of Rides – Stormwater collection including surface drainage, catchbasins, storm mains may route drainage to swale or may route to storm collection system at Mendel Pedestrian crossing
- Pervious Areas – Site improvements are estimated to provide a net increase in the impervious area in the study area. Hard surfacing in parking areas will decrease, hard surfacing for pathways will increase, hard



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surfacing for rides and play areas will increase, vegetated areas will increase with removal of clay ball diamond surfacing. It is anticipated that stormwater drainage can be accommodated by surface drainage.

1.3.2.2 Near Term

- Concession – Expansion of the Concession Amenity Building will increase roof area leading to an increase in the rate and volume of runoff generated
- Landscaped area east of Mendel – The removal of the parking and hard surfacing behind the Mendel will reduce the volume of runoff generated. The existing collection system will be re-configured to accommodate landscaping changes
- Mendel Drop Off – Storm drainage will be accommodated by grading and surface conveyance to existing catchbasins in the Shakespeare parking area
- Community Areas – Storm drainage will be accommodated by grading and surface conveyance to adjacent vegetated areas for infiltration or drainage swale
- Storm Drainage Swale – The existing drainage swale requires re-grading to improve conveyance. Re-grading will include lowering of the grade beneath Spadina Bridge and will result in increased headroom to permit development of a pedestrian pathway beneath the Bridge. Re-grading will be required to extend the swale to the river or constructed wetlands in the riparian area behind the Mendel
- Hugh Cairns Garden and Commemorative Grove – Storm drainage will be accommodated by surface grading and infiltration into the adjacent vegetated areas
- Community Gardens – Storm drainage will be accommodated by surface grading with overland flow and infiltration into the adjacent vegetated areas.

1.3.2.3 Long Term

- Two catchbasins are located near the proposed location of the roundabout. The catchbasins are not documented, nor is the storm sewer network. Surface drainage may be impacted by the roundabout improvements. The City should confirm the location and extent of storm systems within the study area



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- Storm sewer system improvements along 26th Street including catch basin improvements in the lane and surface grading adjacent to the proposed Operations Building.

1.3.3 Considerations

The City should confirm the location of storm system components in the study area. The proposed long term treatment for Spadina Crescent, including a roundabout intersection will require a change to the existing drainage on Spadina Crescent. The correct information will be required to develop cost estimates for changes to the storm infrastructure for budgetary purposes.

The existing storm sewers and surface drainage courses have several components that are in disrepair or poorly maintained. Those components may be subject to further damage or may impact the operational capacity of the existing systems resulting in a risk of damage to other property. Additionally, those areas may represent a hazard to users of the park space. The City should undertake an inspection of the storm systems and undertake corrective measures to preserve and maintain the storm infrastructure.

During the course of this study interest was expressed for the development of bio-swales to provide treatment of surface drainage prior to its release to the river. There may be opportunity to implement these types of treatment facilities in select locations such as the Mendel parking area, however the bio-swale treatment area required to treat the volume of stormwater generated in the western portions of the catchment may not be accommodated within the confines of the swale area or the proposed riparian areas near the Mendel. The City should review the catchment area, and confirm catchment characteristics (including proposed densification of dwellings) and provide predictions of runoff volumes and flow rates.

1.4 ELECTRICAL

The site is serviced by Saskatoon Light and Power. Electrical service is provides power for:

- Path lighting
- Mendel
- Shakespeare
- Concession
- Rides
- Picnic Shelter



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- Play Village
- Ball Diamonds
- Street Lighting
- Flood Lighting for Ski Areas/Trails.

The electrical service for the Shakespeare may continue to be adequate for their needs, requiring rerouting of the underground conductors as the performance site moves to the amphitheatre.

The electrical service for the existing rides may not be adequate for the future power demands. Upgrades to the transformer capacities and underground services will be required.

1.4.1 Upgrades

1.4.1.1 Short Term

- Electrical service for Festival Site – two 200 ampere service panels (single phase, 120/240 volt)
- Electrical Servicing for Rides
- Ferris Wheel – 200 ampere service (3 phase, 208 volt)
- Carousel – 18kW (22.5 kVA - 100 ampere service (3 phase, 230/460 volt)
- Family Swing – 21 kW (27 kVA - 100 ampere service (3 phase, 230/460 volt)
- Lighting for Rides Garden
- Lighting for Play Area
- Lighting for Train Station
- Electrically Operated Gates at Railway Crossings
- Racetrack Promenade Lighting
- Pedestrian activated lights at Mendel Crossing.

1.4.1.2 Near Term

- Landscape east side of Mendel
- Relocated Mendel drop-off
- Amenities Building Expansion
- Land Bridge Lighting
- Spadina Bridge Lighting
- MVA Trail Lighting
- Hugh Cairns Garden and Commemorative Grove Lighting.



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1.4.1.3 Long Term

- Removal of Signalization at existing Spadina Intersection
- Relocation of Spadina Street Lighting
- Lighting of Roundabout
- Relocation of Signalization at Spadina and Queen Street Intersection
- Lighting of Kinsmen Ave Gateway
- Lighting of West Gateway (5th Ave N and 26th St E)
- Operations Shed Electrical Service.

1.5 NATURAL GAS

Natural gas is available within the study area through SaskEnergy. At present the Mendel and the Concession have natural gas service connections.

There are medium pressure natural gas transmission lines located in the study area, located south of Queen Street between 9th Ave N and Spadina Crescent. The lines terminate at a SaskEnergy regulator station located within the study area and south of the intersection of 9th Ave N and Queen Street. A gas distribution main parallels the City Hospital property line extending toward 5th Ave N where it runs down the lane on the west side of the study area (West Entrance).

Natural gas would be available for the Operations Shed if a natural gas fired water heater were required for the restroom/lunchroom amenities. A natural gas fired space heater may be required if snow clearing or winter maintenance equipment were to be stored on-site.

1.6 TRANSPORTATION

The transportation review was limited to pathway and parking amenities.

1.6.1 Pathways

The pathways operated at several levels of service. These ranged from asphalt pathways to trails beaten into the turf. However, the pathways depicted the tendency for pedestrian movements and served to identify pathway upgrades.

1.6.2 Parking

The parking area located near the existing rides is in poor condition with asphalt degradation, pothole development and deterioration of the stone walls.



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The parking area near the YWCA / King Edward is in good condition and provides an orderly parking structure.

The parking near the Kinsmen Play Village is in average to good condition, however it retains features similar to the ride area parking and may be subject to deterioration of the stone retaining walls. This parking area draws users that pose a hazard to the intended users as evidenced by the Needle Safe Drop.

The parking area near the Shakespeare site is in good condition and provides an orderly parking structure.

1.6.3 Upgrades

- Expanded network of pathways based on a hierarchical level of service with 4 m concrete pathways serving the dominant corridors, followed by 3 m asphalt pathways serving existing pathway alignments and finally by 1.5 to 2 m asphalt/crusher dust pathways providing circuitous routes through the park
- Pathway upgrades to be completed in Short and Near Term phases as the Master Plan is implemented.

1.6.3.1 Short Term

- Removal of parking area by Kinsmen Play Village
- Removal of parking area by existing Rides
- Development of parking area north of proposed Ride Area
- Development of parking area along Kinsmen Ave.

1.6.3.2 Near Term

- Removal of parking area east of Mendel.

1.6.3.3 Long Term

- Development of staging area by Operations Shed.



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2 SUMMARY

2.1 WATER SUPPLY AND DISTRIBUTION

The existing water mains should have sufficient capacity to meet future demand given:

- The water demand is estimated to decrease from current demand if Parks sources river water for irrigation purposes
- Peak water demands are estimated to decrease from current in the event that Parks continues to use potable water for irrigation, but installs automated irrigation controls permitting irrigation after regular park hours.

Water quality at the Mendel may become problematic as the chlorine residual degrades due to the increase in residence time in the main due to decreased water demand on the existing dead-end watermain. Looping the deadend watermain may decrease the residence time and maintain sufficient levels of chlorine residual.

An additional fire hydrant may be required at or near the Concession/Amenity Building. The existing hydrants along Kinsmen Ave should be replaced due to limited parts availability.

The existing watermains may be prone to corrosion failure if it was constructed with cast iron from the 1960's. The condition of the mains should be assessed for their potential for rehabilitative treatments.

Irrigation upgrades may include:

- Automated controls allowing for watering on a pre-determined schedule
- The use of non-potable water sourced from the river.

Parks should review and update the estimated cost for the proposed irrigation upgrade and prepare a Life Cycle Cost Analysis comparing the continued use of potable water and the proposed use of non-potable water.

2.2 SANITARY COLLECTION SYSTEM

The assessment is limited to the sanitary collection mains and Trunk sewer.

Sanitary demand is not expected to change significantly based on:



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- Less wastewater generated by the proposed Water Feature versus the existing Wading Pool
- More wastewater generated due to increased number of patrons using Restrooms/Concession/Festival site.

Therefore existing sewer capacity may be adequate to meet the sanitary demands associated with the proposed park upgrades.

The Trunk sewer may have pre-existing issues that should be addressed before the proposed upgrades are undertaken in the park. Issues may include:

- Surcharge conditions during wet weather events
- Degraded condition of sewer mains, specifically concrete degradation
- Integrity of manholes and manhole covers
- Limited unused capacity to accommodate future demands; downtown densification, changing wastewater demands
- Odour.

2.3 SURFACE DRAINAGE AND STORM WATER COLLECTION

The volumes and rates of surface runoff are estimated to increase due to a marginal net increase in impervious areas as a result of the proposed park upgrade. The existing drainage tends to flow toward the swale, the proposed upgrades would maintain the existing drainage pattern.

A storm water collection system may be required for the additional parking proposed for Kinsmen Ave. Existing drainage appears to flow toward the swale therefore discharge of the system to the swale.

The capacity of the existing swale appears to be limited by the accumulations of sediment, vegetation and debris. Channelization may improve conveyance, however the improved hydraulic section would require maintenance to maintain capacity.

A preference to incorporate bio-swales to provide treatment of runoff prior to discharge into the river has been expressed.

The utility upgrades required to service the proposed phases of park upgrade appear to be minor. The majority of upgrades identified pertain to the suspected condition of the existing utilities. There is potential that rehabilitative treatments will be required for some utilities before their condition degrades to the point



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when significant surface disruptions would impact the proposed upgrades in Kinsmen Park. Similarly, it is the degraded condition of those utilities which may impact or pose a hazard to the users that would be drawn to the park following the proposed upgrades.

Thank you for allowing us to assist you with this very important project. Please contact us if you have any questions.

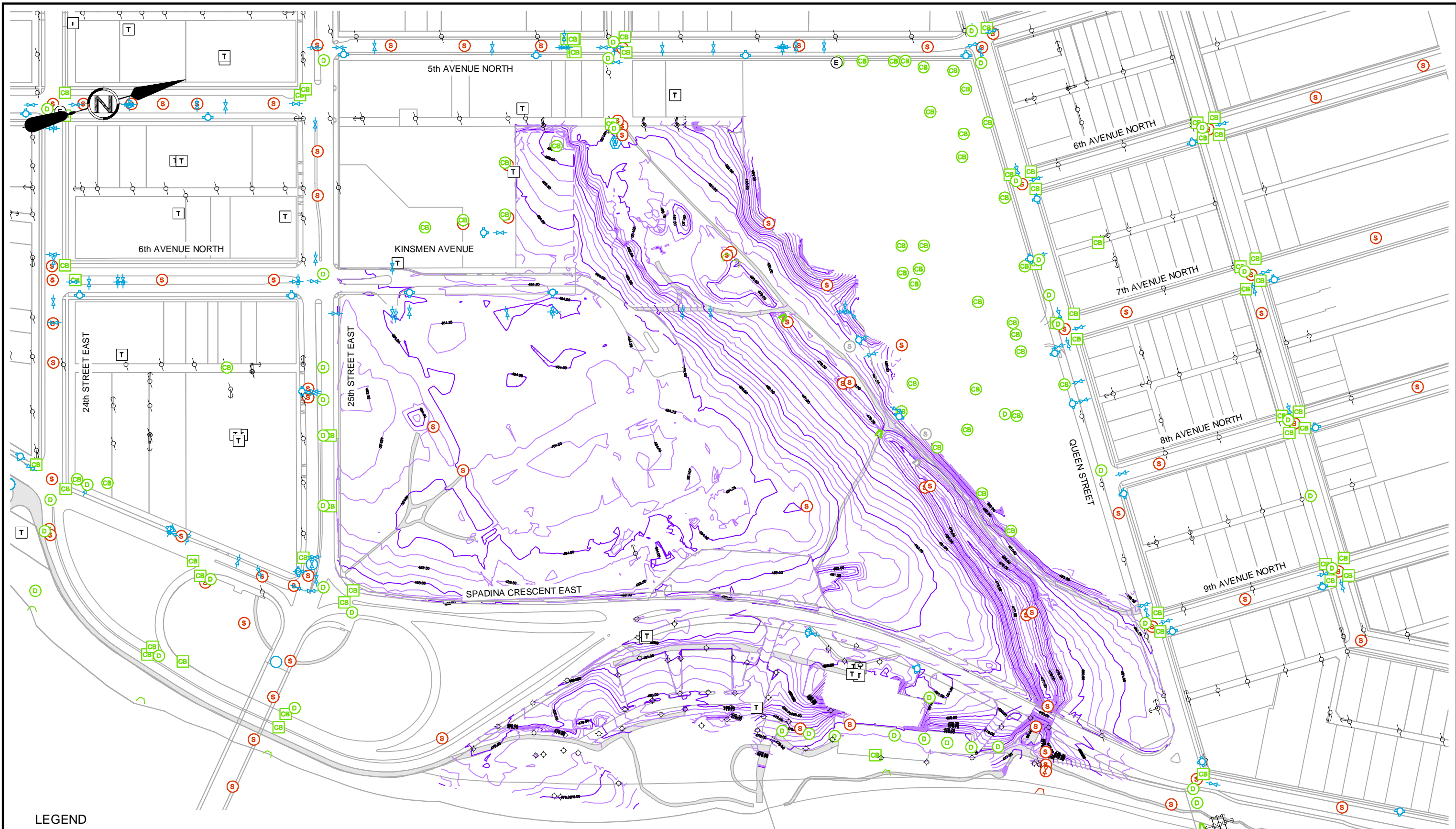
Yours truly,

Kevin Sorsdahl, B.A.Sc.
Project Engineering

KS/dw

Attachments:
Drawings SK101, SK102 & SK103
Cost Estimate Spreadsheet (Sent Previously)

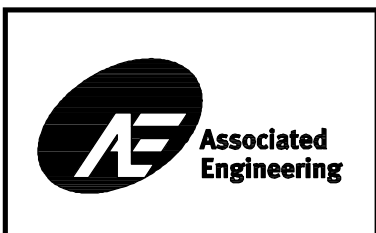
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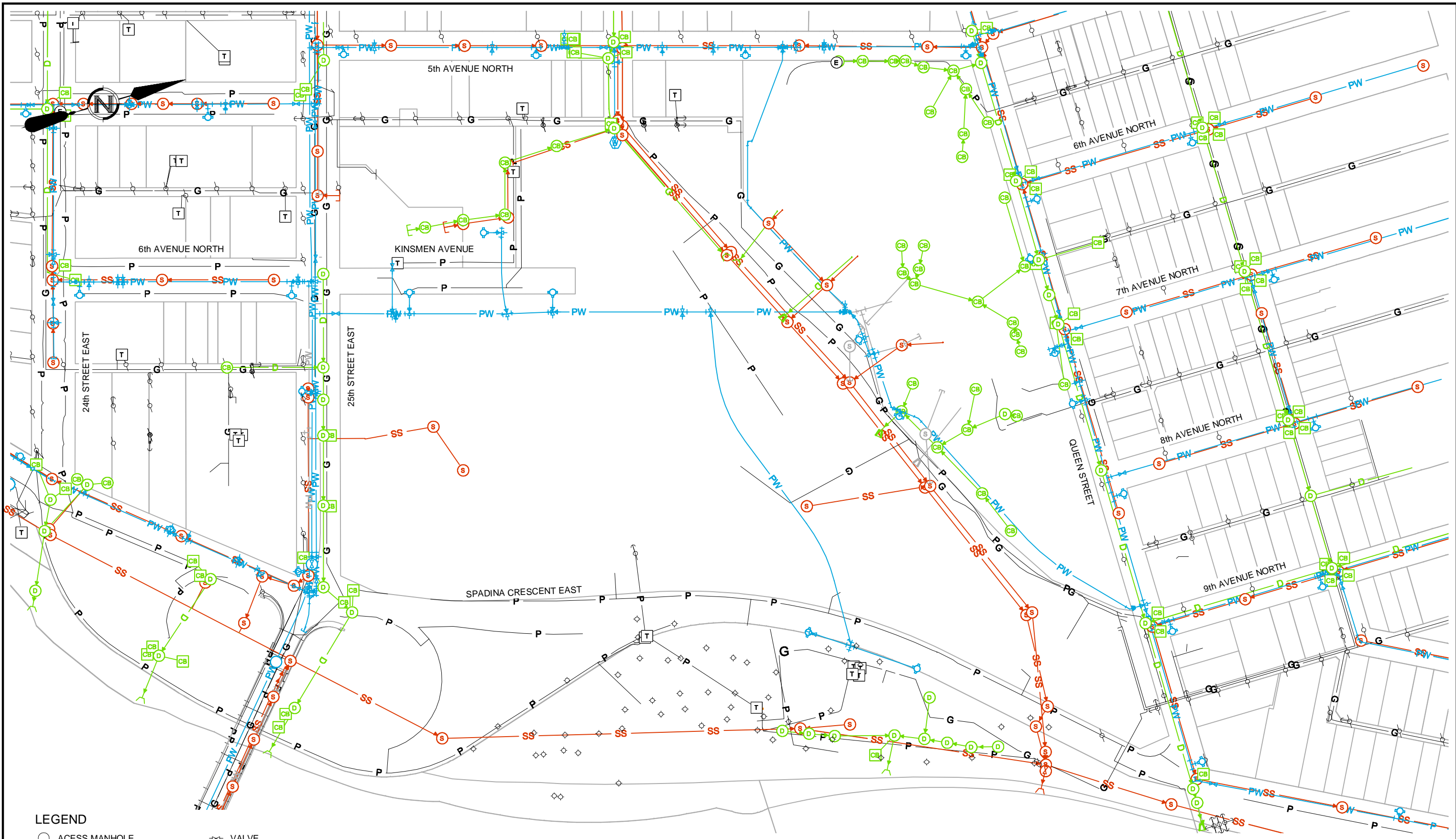
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| ○ ACCESS MANHOLE | ✕ VALVE |
| ⊙ SANITARY MANHOLE | ▶ REDUCERS |
| ⊕ STORM MANHOLE | ⊙ FIRE HYDRANT |
| □ CB STORM CATCH BASIN | ↘ OUTLET |
| ⊙ CB STORM CATCH BASIN MANHOLE | ▬ OUTFALL |
| ⊕ ELECTRICAL MANHOLE | ◇ STREET LAMP |
| ⊕ WATER METER | ○ UTILITY POLE |
| ⊕ TRANSFORMER | → UTILITY POLE ANCHORS |

PROJECT No.	20114888
DATE:	2011/10/11
APPROVED:	K. SORSDAHL
SCALE:	1:2500
DWG. No.	114888-SK101



CITY OF SASKATOON
 KINSMEN PARK MASTER PLAN

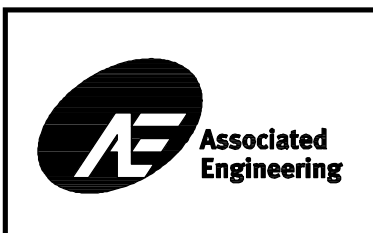
SURFACE FEATURES



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- | | | |
|-----------------------------|------------------------|---------------------|
| ○ ACCESS MANHOLE | ▽ VALVE | — EXISTING UTILITY |
| ⊙ SANITARY MANHOLE | ▶ REDUCERS | — ABANDONED UTILITY |
| ⊕ STORM MANHOLE | ⊙ FIRE HYDRANT | |
| ⊠ STORM CATCH BASIN | ∟ OUTLET | |
| ⊞ STORM CATCH BASIN MANHOLE | ▭ OUTFALL | |
| ⊕ ELECTRICAL MANHOLE | ◇ STREET LAMP | |
| ⊕ WATER METER | ○ UTILITY POLE | |
| ⊕ TRANSFORMER | → UTILITY POLE ANCHORS | |

PROJECT No.	20114888
DATE:	2011/10/11
APPROVED:	K. SORSDAHL
SCALE:	1:2500
DWG. No.	114888-SK102



CITY OF SASKATOON
 KINSMEN PARK MASTER PLAN

UNDERGROUND UTILITIES



IRRIGATION

- WATER (1.1) AND SEWER (1.2) INDEPENDENT DISTRIBUTION MAINS AND LATERALS OR EXPANDED DISTRIBUTION MAINS AND LATERALS
- INTAKE, PUMP STATION, POWER
- ELECTRICAL (1.4) AND NATURAL GAS (1.5) AUTOMATION

MENDEL BUILDING

- WATER (1.1) AND SEWER (1.2) WATER MAIN LOOPING
- HYDRANT REPLACEMENT
- STORMWATER DRAINAGE (1.3) COLLECTION SYSTEM UPGRADE
- SITE GRADING
- ELECTRICAL (1.4) AND NATURAL GAS (1.5) LIGHTING
- TRANSPORTATION (1.6) DROP OFF LOOP

DRAINAGE SWALE

- WATER (1.1) AND SEWER (1.2) REHAB TRUNK AND MAIN SEWERS
- REHAB MANHOLES AND INSTALL LOCKING COVERS
- FOUR WATER CONNECTIONS FOR COMMUNITY GARDEN
- STORMWATER DRAINAGE (1.3) SWALE CONVEYANCE
- IMPROVEMENTS
- CULVERTS AT PATHWAYS
- BIO-SWALE / CONSTRUCTED WETLAND
- ELECTRICAL (1.4) AND NATURAL GAS (1.5) LIGHTING
- TRANSPORTATION (1.6) PATHWAY UPGRADE

RIDES AREA

- STORMWATER DRAINAGE (1.3) SUBDRAINS / STORM COLLECTION
- ELECTRICAL (1.4) AND NATURAL GAS (1.5) PEDESTRIAN ACTIVATED SIGNALS
- LIGHTING
- TRANSPORTATION (1.6) PEDESTRIAN CROSSING
- PATHWAYS

WEST ENTRANCE

- WATER (1.1) AND SEWER (1.2) CUT OFF TWO WATER AND SEWER CONNECTIONS
- NEW WATER AND SEWER CONNECTIONS
- STORMWATER DRAINAGE (1.3) UPGRADE STORM COLLECTION, CATCH BASINS, OUTFALLS AND SITE GRADING
- ENTRANCE STREET SCAPING / GRADING
- ELECTRICAL (1.4) AND NATURAL GAS (1.5) LIGHTING

CONCESSION BUILDING

- WATER (1.1) AND SEWER (1.2) FIRE HYDRANT
- STORMWATER DRAINAGE (1.3) SITE GRADING / SURFACE DRAINAGE

KINSMEN DRIVE / AVENUE

- WATER (1.1) AND SEWER (1.2) ASSESS REHAB OF 300 mm WATER MAIN
- FESTIVAL SITE WATER CONNECTION
- SNOW MAKING WATER CONNECTION
- MOVE HYDRANTS
- STORMWATER DRAINAGE (1.3) STORM SYSTEM UPGRADE
- ELECTRICAL (1.4) AND NATURAL GAS (1.5) LIGHTING
- TRANSPORTATION (1.6) REMOVE EXISTING PARKING
- KINSMEN AREA ENTRANCE UPGRADE

FESTIVAL AREA

- WATER (1.1) AND SEWER (1.2) UPGRADE IRRIGATION ZONES
- ELECTRICAL (1.4) AND NATURAL GAS (1.5) LIGHTING
- TRANSPORTATION (1.6) RACE TRACK PROMENADE
- RAILWAY UPGRADE
- LAND BRIDGE

HUGH CAIRNS GARDEN / CELEBRATION GROVE

- WATER (1.1) AND SEWER (1.2) CUTOFF WATER AND SEWER CONNECTIONS
- ABANDON SEWER MAIN
- STORMWATER DRAINAGE (1.3) SITE GRADING
- ELECTRICAL (1.4) AND NATURAL GAS (1.5) LIGHTING
- TRANSPORTATION (1.6) PATHWAY

PLAY AREA

- WATER (1.1) AND SEWER (1.2) WATER CONNECTION
- SEWER CONNECTION
- STORMWATER DRAINAGE (1.3) SUBDRAIN / STORM COLLECTION
- ELECTRICAL (1.4) AND NATURAL GAS (1.5) LIGHTING
- TRANSPORTATION (1.6) REMOVALS OF EXISTING RIDE AREA
- PATHWAYS

SPADINA ROUNDABOUT

- STORMWATER DRAINAGE (1.3) STORM COLLECTION AND CATCH BASINS
- SITE GRADING
- ELECTRICAL (1.4) AND NATURAL GAS (1.5) LIGHTING
- TRANSPORTATION (1.6) REMOVALS
- RECONFIGURE SPADINA

SHAKESPEARE AND DOCK

- WATER (1.1) AND SEWER (1.2) WATER AND SEWER CONNECTION
- STORMWATER DRAINAGE (1.3) SITE GRADING
- ELECTRICAL (1.4) AND NATURAL GAS (1.5) ELECTRICAL UPGRADE
- LIGHTING
- TRANSPORTATION (1.6) AMPHITHEATRE
- PATHWAYS

POTENTIAL SITE FOR CIVIC CULTURAL EDUCATIONAL AMENITY

- WATER (1.1) AND SEWER (1.2) WATER MAIN
- SANITARY MAIN
- STORMWATER DRAINAGE (1.3) SITE GRADING
- ELECTRICAL (1.4) AND NATURAL GAS (1.5) POWER, GAS
- TRANSPORTATION (1.6) PARKING / ACCESS

REQUIRED UPGRADES TO MUNICIPAL INFRASTRUCTURE

LEGEND

- PW POTABLE WATER
- SS SANITARY SEWER
- D STORM SEWER
- G NATURAL GAS
- P POWER

NOTE:
ITEM NUMBERS REFER TO LOCATION IN NOVEMBER 25, 2011 MEMO BY ASSOCIATED ENGINEERING

A8 OPEN HOUSE COMMENTS

Appendix 8 includes the written comments received from the public open houses held on Nov. 2 and 10, 2011.

OPEN HOUSE #1 (39 COMMENT FORMS)

1. PLEASE TELL US WHAT YOU THINK ABOUT THE FOLLOWING STATEMENTS:

The proposed plan creates an activity hub for all ages in the park.

- focus appears to be children, How about seniors? Physically disabled?

The proposed plan improves pathway connections and pedestrian movement through the park.

- currently ok
- people will take the most direct route. The proposed routes don't address natural routes
- depends on lighting and approach

The proposed plan will improve public safety in the park.

The proposed winter activities and programming will increase the use of the park by more people during the winter.

The at-grade crosswalk and pedestrian path under the bridge on Spadina Crescent will provide better pedestrian crossing on the street.

- As long as it is safe
- And where do they park their cars?

The proposed Children's Discovery Museum at the Mendel is an appropriate fit in terms of a public program and amenity in Kinsmen Park.

- Still wish it was not an Art Gallery

The play area centralized in the park will increase usage.

Prefer the decentralized option; less crowding, less congestion

- If there is no extra parking it will not be used

2. WHAT ELEMENTS OF THE PROPOSED PLAN DO YOU WANT TO SEE FINISHED FIRST?

- How come no comments from the floor? Community Garden not a good location behind hospital
- Children's area, Children's Museum
- Adequate parking, sidewalks etc. the childrens play area just had a major reno, is this ?????? Are we wasting \$ - somewhat like the ?????? ?????? budget. WOW!
- Pathways, traffic, parking and crossways.
- The proposed agenda sounds ok
- I would like to see the winter activities finished first.
- Completed new Spadina Roadway – with more expected public activity the old (current) Spadina will be a hindrance to pedestrian traffic, thus being a deterrent to the park.
- Play area designed for the children
- New childrens play area, children's museum
- Bridge under Spadina, Northend, Riverbank rehab.

- Winter activities; designed and created 1st
- The focus seems to be primarily children and doesn't cater to other age groups – eg. Seniors
- Ski trails and children's rides and games
- We are 46 units of taxpayers
- The core: rides, skate park, plaza etc. Accessibility to the park and circulation on Spadina: bike paths, pedestrian paths, crosswalks
- The children's play area
- The children's museum taking on the space at the Mendel
- Redevelopment of the Shakespeare on Sask festival site and river edge & paths should happen sooner than later as this has the potential to be a year round space with productions and experiences happening more than 6 weeks of the summer.
- Children's discovery museum, play area, rides
- The children's Discovery museum
- Roundabout
- Winterized washrooms! (so 90+ children have a washroom when they are cross-country skiing in their lessons)
- Looks reasonable overall, would like 5th Ave access sooner, would like ski bridge
- Removal of fences & barriers and addition of new pathways at grade. (no overpasses at this time) and observe how park & paths used. Begin to create children's area and new parking. Again observe how park and paths are used. Plant trees.
- Museum for children and social nodes
- Parking lot enlargement
- Winter washrooms! Are a priority
- Land bridge, heated washroom area
- Let common sense prevail AND Give your heads a shake!!!

3. DO YOU HAVE ANY OTHER COMMENTS?

- Your focus seems to be on children's play. What about seniors. "Discovery Park" residents are concerned about the maintenance yard being directly behind our building. It will diminish the value of our property. I strongly disagree with the maintenance equipment being stored directly behind our building.
- Love that the coffee shop & conservatory will be okay!!!
- Yes – concerned that there will be increase in usage and not adequate parking/security. This greatly effects our Condo Complex. *Concerned with placing of the designated area for maintenance shop.
- The children's discovery museum is a must for the Mendel space. It will definitely draw more young families to an area of the city that has been designed for them.
- Help community understand that when reno's start in a house,

finishing a bathroom is first, kitchen next and so on...?

- The discovery Museum is the best choice for the Mendel – make it happen I love the skating path! And the ski bridge. The toboggan runs would be great
- Please take care of land degradation caused by compaction
- Major pedestrian traffic is currently N-S. this is unlikely to change. The 4 ? E-W pathway seems like overkill. Conflict between toboggan hill 2 x-c skiers is likely going to be a problem.
- Please do not put the maintenance buildings by Discovery Park Condo it will spoil our view and hurt the value of our property. Thank you
- Missing – Teen – Skate park please, Missing – Senior outside fitness circuit (see Invermere BC)
- Youth destination seems excluded from design, active hub for all? Suggestion: ART WALL; spraypaint
- The plan identifies a 'maintenance yard' adjacent to Discovery Park. Additional information about the details of this part – size of building proposed, extent of any additional parking proposed. What access is proposed for the community garden adjacent to the hospital and the maintenance yard? Who maintains the gardens? Main concern is to have more information about the maintenance yard. Also consider noise etc for the hospital.
- Spadina's main artery to North area with amount of traffic it should be widened
- Please don't locate your maintenance yard right close to the Condo building Discovery Park. There are 24 condos overlooking the park – the view is absolutely beautiful as it is and I want it to stay that way.
- No negative comments as long as the maintenance area isn't place immediately in front of Discovery Park Condo, we are just as important as beautifying Spadina Cres. for the cars to travel on.
- I don't want to see the maintenance shed moved north! Community gardens are good to have but not in the designated space in front of the hospital, they become & are very messy, that space is now used by many people summer and winter. Frisbee, tumbling down hills, some of the nicest green space in the park!! Don't change it.
- I feel like there is great potential for the Mendel space to be the link between the children's activities that are planned in Kinsmen Park and the strong science activities happening at the University of Sask. I would suggest a bigger focus on linking these two elements in a "science centre" for children, with a lot more emphasis on science, technology and innovation.
- Please consider the alternatives for the 'yard maintenance lot' the area is close the residential and hospital buildings. I am worried about noise and early morning activity.
- The city needs a facility like the CDM for families and visitors
- Connection from south half of park to riverbank is non-existent, but good in north end.
- A larger skating area. Take advantage of the winter scenery – don't confine the skating to an interior design, utilize the entire park
- Love the idea of organic play structure also indoor and outdoor play
- Wonderful plans – great array of interactive play for children indoors & outdoors
- Detailed design should address the detailed connection requirements for pedestrians
- I wish there would be an above grade pedestrian (ie bridge) crossing over Spadina near the Mendel
- 1. Dogs – please, more signs, more enforcement for dogs in park (not service dogs) dogs both leashed and not are common. It's a park for families and children. Dogs can be messy or mean and little kids roll in the grass and can be frightened by or hurt by dogs! 2. Consider bracelets for multiple ride use in a day. Its wonderful at Calgary Zoo
- Please keep the statues of the children. If they are not explicitly documented in the plan it would be very easy for them to be forgotten & disappear. If the choice is to remove them, please let me know as I would like at least one (mine) Rosemary Gray (on list)
- New east west pedestrian link is forced. People move across the park from SE to NW (vice versa)and north/south. Too many conflicts with pedestrian and x-country ski trails. More ski bridges needed.
- I hope this will not be an attraction for gang elements!
- Re: Mendel. Remove the wall they just put up in the auditorium to restore it to its original 41' x 30' size. Take out the wall to open up the stage. Add acoustic tiles or whatever is needed to improve the sound in the auditorium. Convert area below projection room to a small kitchen with water and sinks so meeting groups using the auditorium don't have to use the toilet area to fill their coffee urn. Ever try cleaning a hundred cup urn in one of those washroom sinks? Its not easy! Provide display areas on the auditorium walls for changing photo and picture displays. Park proposal will bring in a lot more people. And where are these additional cars supposed to park? Present parking is not adequate! Addition parking by the Y is good but not good for seniors or mums with little children and a stroller heading for the playground. Too far! Pat Derbowka
- Where is Council? (a councillor?) this experience didn't feel like public input, my questions/input was dealt with in a dismissive way. I didn't feel heard or my concerns were dismissed. Staff do not need to defend this concept, only be open to hearing my input it seemed that because Potash was a primary contributor to the project, there was no flexibility to deal with other areas outside of their parameters.
- I have some difficulty with trying to incorporate tobogganing into the play. It will create some conflict between cross country skiers and the tobogganers. It would be preferable to make the terrain such that there wasn't too much vertical on the

hill. A wider and much taller path/tunnel under Spadina might open up possible skiing on the southeast side of Spadina but snow would have to be hauled by hand into the tunnel, safety in the tunnel would be a major concern. The learn to ski area looks somewhat shorter in length than it used to be, hope this is not in fact the case. Wish we weren't losing 300m of ski trail! This is the only lit night ski area in the city. The ONLY one!

- Is this supposed to be an improvement on this lovely natural park as it is now? It seems to me it is an extremely costly project! We the taxpayer will be burdened with the cost. The only place in the park with residential property bordering the park!! Is where the maintenance shed are to be put. No doubt the noise will start around 2:30 – 6am in summer – how nice for people living in the apartments beside it. Is a park the place for community gardens?? Good luck with your (Coney Island!)
- #1 City Hospital is one of the most prestigious hospitals in Sask. (and probably Canada) why would you destroy the sloped landscaping (parksides) with maintenance buildings and community gardens? Patients and hospital workers utilize that green area, not only for coffee & lunch breaks, but families bring their love ones out to that area in wheel chairs to enjoy the sunshine, picnic tables and the greenery. Keep your gardens to the east (Spadina & Queen st corner)
- #2. Blocking the pathways from the university bridge to the hospital (through the ball diamond area) is also a STUPID idea. U. of Sask students and hospital workers use that pathway from early morning until nightfall. Whether it is 30' -40' below or 30' above, any short cut is welcome coming to and from work or U of S classes. Simply look at the worn pathways through that area. There is a constant traffic flow throughout the day – be it bicycle or foot traffic.
- #3. If the childrens (existing) play area is to be moved, how come, the maintenance buildings cant remain where they are at present? Why would you even think of moving them up to the front of the hospital – to an area which was meant for a quiet area for patients. There guests, and loved ones – also a place of relaxation for hospital staff.
- #4. No mention of the low lying ravine – (a water filled slough after any heavy rain) does your architect have any idea of the natural lay of the terrain? – run-off from 5th ave etc. must run somewhere – and east to the river is the only natural direction.
- #5. Doing away with the parking area north of the ball diamonds, may hinder the nightly drug traffic, but throughout the day that parking lot is usually filled with YWCA participants, and of course, childrens playground parents etc. there surely doesn't seem to be enough parking area in the proposed renovations.
- #6. you have wasted a lot of money on a Vancouver architect. A good old Saskatonian would have had a better idea of what is appropriate for Saskatoon.

OPEN HOUSE #2 (42 COMMENT FORMS)

1. PLEASE TELL US WHAT YOU THINK ABOUT THE FOLLOWING STATEMENTS:

The proposed plan creates an activity hub for all ages in the park.

- Elders – large local neighbourhood
- Not sure what is directed to fit the needs of Seniors
- We have an older population

The proposed plan improves pathway connections and pedestrian movement through the park.

The proposed plan will improve public safety in the park.

- Is this a problem?

The proposed winter activities and programming will increase the use of the park by more people during the winter.

- Yes but there is going to a place to warm up as if for cross country skiing. And maybe another practice skating rink so it would be nice if we can have the use of the Mendel.
- Is there a difference with spring & summer?
- It is good now, too
- strongly agree, only if a full service, all-season facility is installed in conjunction with increased winter activities. A readily accessible warm-up place is indispensable to promote winter activities.

The at-grade crosswalk and pedestrian path under the bridge on Spadina Crescent will provide better pedestrian crossing on the street.

The proposed Children's Discovery Museum at the Mendel is an appropriate fit in terms of a public program and amenity in Kinsmen Park.

- Possibility for of a state of the art multi-media performance space
- This really irritates me. If you had put the children's hospital here then I might be more inclined to agree with this.

The play area centralized in the park will increase usage.

- Great. Will be a magnet.
- I support childrens play park areas but not sure it needs to be relocated.

2. WHAT ELEMENTS OF THE PROPOSED PLAN DO YOU WANT TO SEE FINISHED FIRST?

- Clearly the central play area
- Children's play area, children's museum
- 1. The traffic flow should be a priority to get people used to roundabouts and for increased safety in crossing the road. Current walkway across Spadina turning right off Uni Bridge is an accident waiting to happen! 2. The play area. 3. Toboggan mound would increase kid usage during winter – surely would

be relatively inexpensive to do at the beg. of devel.

- Children's are for the youth 12-15 as there is nothing for them. The younger children do have many parks in the city although the improvements as planned will certainly be welcomed as enhancements.
- Winterized concession building
- Spadina crossing, play area, year round warming hut/ concession.
- Cross country skiing needs to be a priority in the park. It should not be damaged for the implementation of other winter activities.
- Children's play ground
- It would be nice to have winter activities but you need a place to warm up in the winter so it would nice to the Mendel Art Gallery for hot chocolate or coffee house.
- Kids play area
- Play park. Winter activity expansion. Community gardens – irrigation in place, so that a Garden Collective could put in a application.
- Is there a place that community groups can rent and create special events and experiences.
- Play area, winter skate area
- See Below, roadways etc comment. Play area – with improved increased rides is required to attract usage back to park. Question #1 slated towards approval of plan rather than towards constructive discussion and input.
- Buses, traffic fix, mound a good idea for use summer and winter.
- Pedestrian Crossings. Need Buses to go the area to be inclusive. Get roundabouts in soon. Good to improve river edge. need education re: roundabouts
- I'll leave that to the experts. There's a balance needed between areas ready to use and access
- Pedestrian crossings & bridge. The central play area will probably take a while, but great, too
- No
- Will this take into consideration any development for the proposed "whitewater area" another access place for canoes/ kayaks is needed along the river, even with the dam!
- Safety and age appropriate
- The gardens.
- The main play area
- Children's areas – build the new before taking down the old
- Community garden. Underground pass under Spadina
- Construction of roads and crosswalks then park then Mendel Building.
- Nothing

APPENDIX 8: OPEN HOUSE COMMENTS

- Children's Discovery Museum
- Public skating area
- A full service, all-season facility.

3. DO YOU HAVE ANY OTHER COMMENTS?

- With regards to history and culture, I would like to see information plaques about the historical/cultural features of the park included in the 5 year plan. Great plan for revitalization of park. Good Job!
- There should be a walk way all around the park. Plus possible exercise station to challenge users.
- I don't see anything particular for seniors and there are many in the downtown area and more are encouraged to live there. But what amenities? Need more than benches. Is there any area for dogs to walk, exercise and train? That was brought up. Any that are around are far to far away.
- Path from main parking area to play area needs to be more than just a long walk – activities, displays along the way. The train ride seems to be a long, simple loop with little to see. Kids may get bored after one ride. Add sights, tunnels, points of interest. Community area on west side looks like a risk for misuse. Care must be taken. Outdoor adult oriented coffee shop? Just an idea. Could use a better tie to river and river oriented activity. Absolutely fabulous design and perfect plan for staging. I especially like how winter use is encouraged. Children's museum is a perfect partner, recommend inclusion of children's theatre.
- Current plan and phased schedule will result in destruction of Kinsmen Park as location for cross country skiing and ski instruction.
- I am concerned that the plan offers few opportunities for teenagers to use the park. There is too much emphasis on younger kids (<12 year) why not a mini-snowboard park/ terrain park for winter use? I see so many ranges and jumps built around Meewasin Valley in the winter (including the steps below the Mendel) why not give the 13-18 yr old set a reason to leave the couch during the winter?
- Leave ball diamonds as it gets seniors out of their suites, this is the only thing that gets some seniors out.
- The toboggan hill is likely incompatible with the x-country ski area. Plowed paths through the park need to be ??? by ski crossings immediately.
- Please ensure paths are gritted/sanded in the winter so elderly feel safe walking there. Please have benches every 25 yards or so to allow people who have limited walking ability/stamina, the opportunity to rest. (in Calgary by the Bow River the benches are ideally spaced for this purpose) Please ensure that disabled children/adults can enjoy the park by perhaps having particular areas geared for visually handicapped and trying to enhance accessibility everywhere.
- A concentrated/dedicated time must be set aside each spring to discourage the Canada Geese from the ground areas along the river bank. One person in a golf cart would need to be dedicated for a period of two weeks at about ½ day / day. ie 4hrs/day – 2in the am and 2 in the pm.
- Huge demand for garden space from downtown residents that we are unable to accommodate, as City park Garden has residency requirements. Hopefully Garden potential Collective would open up this spot for other residents.
- Great work. Very inspiring this will bring new life and energy to the park all year. Thank you for your vision – I love it.
- Consider "natural" pathway across the park which are created by pedestrians wishing to take the most direct route – these will persist – perhaps formalize them? Consider having a goose slide in the play area in the tribute to (or a reproduction of) the well loved goose slide that existed for many years behind the Mendel. I'd love to see a small off-leash dog area! Thanks
- Roadways. Pathways and access should be completed early in the process to set the pattern, rather than waiting until you have encouraged heavy usage and then disrupt the access to build roads etc. thus turning off those who have come to use the new facilities. A revamped railway should be interesting including sites seen along a railway ie elevators, towns mountains, tunnels, and not simply a ride. Concern about possible conflict between play area, ski areas and festival usage in designated site.
- What will parking for the Mendel be like? What will be rule about dogs? Mound IMPORTANT. Need larger picnic area. Not sure about community gardens.
- I don't like the idea of an 'underground' path under spadina for security reasons. You may think children will always have adult with them, but one can't be sure.
- NO
- I do not like the idea of getting rid of the ball diamonds & I know the rest of the ball community fee the same way. Very disappointing.
- No
- Does the winterized concession area provide for a "warm up" change area for winter users. That's more important than selling food. Sounds like a good plan. More ski trails great.
- There is a real problem in the city with people in general and specifically with dogs walking on the groomed ski trails. More or better signage might help or more frequent grooming of the trails might be an option.
- All our parks and schools need this done!!
- It would make sense. As it is most of the population and visitors in this area are elderly. You should be thinking then of something elderly people could use and enjoy! Not a children's museum which so far has very little interest anyway (has it generated much business so far?) what about the very good WDM – why not a collaboration? Some very poor city planning has taken place in this city so far. PLEASE THINK! And consider

and think ahead!!!

- I think the current park is wonderful, but new plans look good. Finally a BUS STOP in front of Mendel. Only took 40 years!
- There needs to be more parking by children’s play areas. Why are there plans to move everything? Are there not more important needs in our city? Poverty, homelessness
- I would prefer a full-on science centre to a children’s museum at the Mendel location. Keep the planetarium here (in Mendel)
- A children’s museum is an excellent choice for the Mendel site.
- Great plan. Spadina is very busy for all the children. Re-route traffic or slow to 30kph
- Concerned about city costs and maintenance for gallery and children’s centre.
- More MVA to Mendel Art Gallery. Use Mendel name as “Mendel Civic Centre”. Future proposed use of Kinsmen Park is excellent!!
- No
- Keep the conservatory!
- I would like to see a place or stand where public can rent skates and use them. This will be a great program especially for people who cant afford to buy skates.
- We can not understand how the central play area could be structured for winter activities in the proposed stage 1 of the implementation timeline, without a supporting all-season facility being provided at the same time. In addition, the possibility exists of encouraging people to violate city health & safety by-law 8354 by not providing readily accessible washroom facilities in the activity area of the park.
- The Winter Concept presented at our July 27 meeting with the City planning team was changed to enlarge the central play area such that the ski trail and instruction grid were moved westward about 50 m (estimated at the Open House display panel). This creates a further reduction in the trail, but more significantly it pushes the grid into the centre of the current ball diamond area, so that the well-established, unpaved walking path cutting diagonally across the area, now intersects the grid. It is impossible to set a functional instruction grid over top of a packed walking trail. We weren’t told why this change in the plan was thought to be necessary.
- Tobogganing & Skiing – these are incompatible activities. The original suggestions by the Ski Committee for improvements to the cross-country skiing area by creating more variety and challenge to the ski trail through landscaping did not anticipate that if such modifications were planned that they would include tobogganing.
- No one is in favor of the ski trail length being reduced. It’s a very short trail to begin with, so any reduction is significant especially for those who use the trail for regular exercise and fitness training.
- The ski bridge is at first glance an exciting feature, but in view of its heavy expense we are skeptical about it ever becoming

a reality. For years the Nordic Club, which grooms the trails in the park, has been creating “snow bridges” to cross the train tracks in four locations to set the ski track at no additional cost to the City.

A9 CPTED REVIEW REPORT

Appendix 9 includes a safety study of Kinsmen Park and surrounding area, as well as recommendations for the implementation of the proposed master plan.

Kinsmen Park Master Plan

CPTED Review Report



October, 2011 | Community Services Department, Planning & Development Branch

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1.0

General Background

Crime Prevention Through Environmental Design (CPTED) is a collaborative, multi-faceted approach to reducing opportunities for crime, improving perceptions of safety, and strengthening community bonds. CPTED emphasizes the relationship between the immediate physical environment and social behaviour related to crime. CPTED strategies are typically developed jointly by a number of trained individuals to ensure a creative and balanced approach to problem solving.

The principles of CPTED were adopted into the City of Saskatoon's Official Community Plan in May 2008, and the Senior Management Team approved the CPTED Design Review Administrative Policy No. A09-034 in September of 2008 (Attachment 1).

The CPTED Review of the plans for the Kinsmen Park Master Plan (Map 1), the redevelopment of a city wide park located in Saskatoon's Downtown, was undertaken by the CPTED Review Committee and the findings of this review form the basis for the recommendations in this report. The proponent was represented by Jeanna South, with the City of Saskatoon, Corporate Project Section of the City Manager's Office and Jeff Cutler, a consultant from Space to Place.

The CPTED Review Committee for this project included:

Glen McDonald (Saskatoon Light and Power), Alan Otterbein (Parks Branch, Infrastructure Services), Dylan Czarnecki (Leisure Services Branch, Community Services), Shall Lam (Planning and Development Branch, Community Services), Daniel Gray (Planning and Development Branch, Community Services), and Elisabeth Miller, Chair (Planning and Development Branch, Community Services).

Regrets:

Kathie Wiens (Saskatoon Police Services and Dylan Czarnecki (Leisure Services Branch, Community Services) were not able to attend the review meeting but provided their comments to be included in this report.

Not in attendance: The Urban Design Section did not participate in the review as they played a key role in the development of the plan and saw their participation in the review process as a conflict of interest.

2.0

Project Background

2.1 Kinsmen Park Site

Kinsmen Park is a special use park and is Saskatoon's oldest park development. Located between Saskatoon's downtown and the City Park neighbourhood, the park's central location and close proximity to the Mendel Art Gallery building, the Shakespeare on the Saskatchewan site, and the Meewasin Valley trail system add cultural and educational elements to the variety of family focused recreation activities Kinsmen Park has to offer. Special Use parks are a city wide resource that respond to unique site circumstances and/or provide unique programming opportunities. They are subjected to less detailed development guidelines than other parks in the park hierarchy and serve a particular function within the community.

Kinsmen Park's most prominent feature is the children's rides located along Spadina Crescent. Whether riding the miniature train with the family or watching children enjoying the carousel, this area of the park is well attended and viewed as a family destination within the city. Across the park from the rides, the Kinsmen Play Village provides another children's haven, with a supervised paddling pool and slides to provide hours of entertainment and playground activities. There is a significant amount of open space in the park which provides many opportunities for leisure and un-programmed activity. In addition, designated sports fields provide programmed fun for a number of sports teams from across the city.

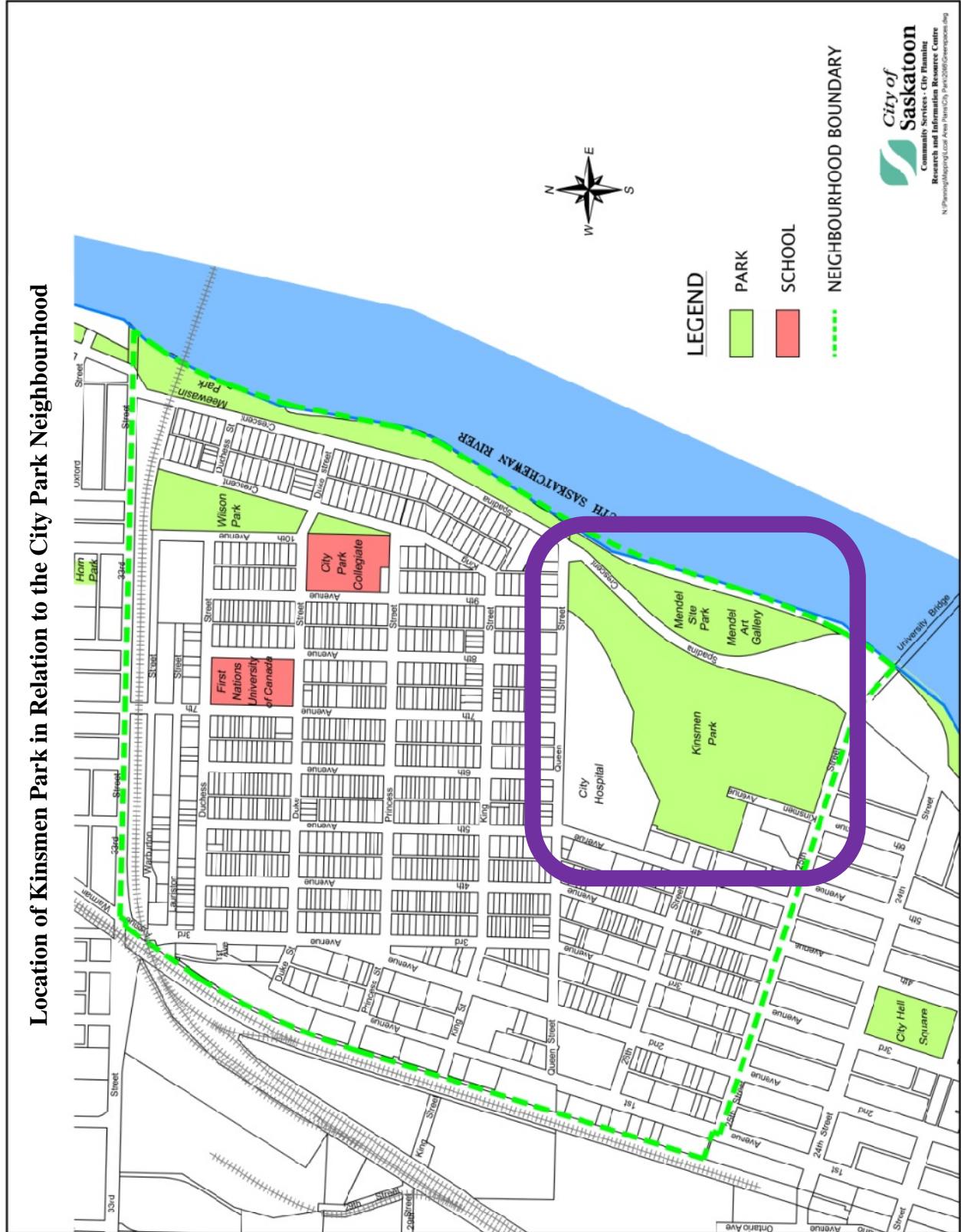
The Kinsmen Park Master Plan is directed at building on the existing family focused development, establishing clearer pathways, improving complimentary land use in and around the park, while improving or developing additional uses for all-season recreation. Currently, the Nordic Ski Club calls Kinsmen Park home through the winter months, preparing and maintaining a number of cross-country ski trails within the park aimed at a variety of skill levels. Consultation with this group determined their strong desire to remain in Kinsmen Park, which lead to the proposed ski trails, accompanied by a ski bridge and cleared pathways to separate conflicting users. Additional winter activities were brought into the proposal including a tobogganing area and a ski terrain park.

Outside of the winter months, Kinsmen Park Master Plan proposes to enhance the current children's activities, while developing festival space that can double as an informal sports field. A lengthened miniature train line will follow a portion of the historic horse racing track that existed until 1910 in this park, providing riders the opportunity to view the park from a different perspective. The proposal shows two neighbourhood type parks within the larger Kinsmen Park that will provide green space for residences close to the periphery of a neighbourhood and focus on passive recreation and aesthetic appeal. The concept plan adds community garden space, on the northern boundary, adjacent to City Hospital, to provide valuable space to come together

around the opportunity to grow fresh food for their families. Collectively, the proposed improvements and additions to the park space will foster increased usage of the area and promote community cohesion within the area and on a City wide level.

The area around the park is proposed to receive a number of up-grades and alterations to enhance the safety of the area, while improving efficient land use in the City's downtown. By removing the abundance of parking lots and redesigning the streetscape and road alignment of Spadina Crescent, the proponent plans to significantly lower speeds around the park, while enhancing parking availability for park users. Although there was not a clearly established re-use of the Mendel Art Gallery building at the time this report was written, the proponent remains adamant that the new use will complement the existing use and remain a community focused facility and will work to ensure that this happens. The suggested relocation of the Shakespeare on the Saskatchewan site north to a naturally formed amphitheatre will remove pressure placed on the riparian land on the South Saskatchewan River banks and promote environmental stewardship along the river banks.

Map 1: Park Location Map (identified by the purple square)



Map 2: Kinsmen Park Concept Plan

City Hospital

2.2 Crime Activity

The 2010 Crime Stats map (Attachment 2) show that incidences of reported crime in Kinsmen Park and the Mendel Site area are relatively low, although there are a percentage of crimes that typically go unreported. In addition, regardless of what actually happens in the area, perceptions of safety are important even though they may not have a solid base. Using a combination of the crime statistics, like those found on attachment 2 and perceptions of safety in the area, such as those identified in the Mendel Site Safety Audit give a more rounded picture of what is happening in the area.

The Mendel Site has a few incidents of property theft (under \$5,000) and one or two liquor related charges. The majority of the concerns in this area are related to perceptions and the opportunity for crime to occur. The Mendel Site Safety Audit collates the safety audit responses, site observations, and intercept surveys to formulate a number of recommendations aimed at reducing the opportunity for crime to occur and increase user's feelings of safety in the area.

The 2010 Crime Stats map (Attachment 2) shows a number of incidents related to City Hospital and to the park proper. Unfortunately, the map location of a statistic does not correlate with where the incident happened on the ground. What can be gleaned from this map is the severity and overall numbers of reported incidents. The park area shows under 5 liquor related incidents, 2-3 incidents of mischief, an assault, and an incident of property theft (under \$5000). This is a total of about 10 incidents in 2010.

The City Hospital site shows many more incidents than the park itself but this is not out of the ordinary for a high use, high stress facility. What is important for this project is to ensure that none of the incidents spill over into the park or are displace into the park. The risk of this is small.

There are also a number of incidents that occurred in the adjacent residential areas but there is nothing that appears out of the ordinary. The large number of incidents across the street from the south east corner of the park are related to the Parktowne Hotel and bar, although the majority of these incidents are property or liquor related.

The other location that relates to the Kinsmen Plan is the intersection of Spadina Crescent and Queen Street. Although not high, there are a number of mischief and liquor and drug related incidents. These incidents have the potential of having a significant impact on the underpass at that location. Although the incidents cannot be tied directly to the underpass it does reinforce the importance of the design of the underpass to reduce the opportunity for crime to occur and increase feelings of safety in the area. The redesign of this underpass, and the pathways on either side, will be critical to ensure a safe route between the MVA and Kinsmen Park trails. If users concerns are high, they will not use the underpass and may, potentially, jaywalk at that site.

3.0

Significant Findings

This section identifies a number of significant findings based on the proposed plans for Kinsmen Park and the principles of Crime Prevention Through Environmental Design (CPTED). It is important to note that all of the CPTED principles, which are set out in Attachment 1, do not apply to every project and occasionally, some principles may overlap. To clarify this review, some of the CPTED principles have been combined.

The preliminary plans for the Kinsmen Park Master Plan were reviewed and the following findings and recommendations identified for use in the ongoing design work and management plan for the park.

3.1 Natural Surveillance

This is the concept of putting “eyes on the street” and making a place unattractive for potential illegitimate behaviour. Street design, landscaping, lighting, and site design all influence the potential for natural surveillance. The general visibility and natural surveillance, both in to and out of the park, will help ensure the safety of park users and deter criminal and nuisance behaviour on the site.

Kinsmen Park is a well used, city-wide park that is bound by busy streets and City Hospital providing an abundant amount of natural surveillance opportunities into the park. To add to this, a number of user groups attend the park for a variety of reasons, including physical activity, children’s activities and relaxation; thus occupying park space throughout the day and all year round. The proposed Master Plan identifies and compliments the existing natural surveillance opportunities in the park, redeveloping the park in a fashion that promotes positive natural surveillance opportunities while fostering new and exciting uses through thoughtful landscape design.

The Committee expressed concern regarding the existing underpass that connects Kinsmen Park to the Meewasin Valley Trail network under Spadina Crescent. The current condition of the underpass does not promote natural surveillance opportunities. This is evident by the amount of graffiti vandalism garbage that is found in the area. A combination of poor lighting and obstructed sightlines creates an area of uncertainty, which results in a decreased sense of safety for users.

There has been a significant amount of work done around other pedestrian underpasses in Saskatoon. The Committee would like to see an appropriate redesign of the underpass, including, widening the underpass, ensuring appropriate lighting plan that does not have a

detrimental effect on surrounding land uses (glare, shadow casting, etc.), a grade reduction around the entrances to the underpass and an appropriate maintenance schedule to reduce the graffiti vandalism and litter currently found there.

A number of committee members identified concerns with the proposed parking lot planned for the area south of City Hospital. Although additional parking considerations are required, with a number of parking changes being proposed for the area, committee members identified that the parking lot in question did not convey feelings of safety and would be removed from most natural surveillance opportunities. This parking lot is not easily seen by residents of the surrounding neighbourhood. It is tucked in behind multi-story buildings and a single exit/entrance located in the lane south of City Hospital. Locating a parking lot here may also increase conflicts between the hospital and park user groups. Additional considerations in the final location of this parking lot should include, ensuring the area is more open to natural surveillance opportunities from the surrounding land uses and that it is more accessible.

Over the years, there has been an ongoing discussion regarding lighting in parks and whether or not they should be lit when the park is ‘closed’. Although there has been no resolution to this discussion, lighting is often a discussion among safety practitioners when considering the improvement of safety perceptions in an area.

Lighting can promote legitimate use, but is also known to attract illegitimate users at off peak times. Too little lighting may keep the majority of users out of the unlit area; however this also leaves the area more susceptible to vandalism and mischief. Some research has even shown that too much lighting can cause reduced feelings of safety in an area. The committee recommends that the proponent conduct best practice research to derive a beneficial lighting plan that will ensure the safety of Kinsmen Park users. This lighting plan would verify that lighting preserves open sight lines, without casting shadows or glare that could impair park patrons’ vision and safety or negatively affect neighbouring land uses.

3.2 Access Control

Controlling who goes in and out of a site, park, building, etc. is important. Access control includes creating a sense of “turf” for legitimate users, while focusing on formal and informal entry and exit points.

Kinsmen Park has a number of formal access points in various conditions with varying levels of accessibility. The committee identified that the access point situated at Kinsmen Avenue and 25th Street East needs to be improved to provide better access to and from the Kinsmen Park site. Although a reduction of parking opportunities is expected to reduce traffic through this entrance, pedestrians wanting to enter the park from the south are limited to this location and are greeted by a very short section of sidewalk into the park. Improved pedestrian access to the park will compliment the users of the park and will support active transportation in and around the area.

Similar concerns were raised with the access point linking the Mendel Building to the park. The redesigned street is projected to slow traffic around Kinsmen Park. However the addition of signage, pavement treatments, and/or pedestrian lighting within the crosswalk design will help to further reduce conflict between the park patrons and the traffic moving along Spadina Crescent. Additional considerations are required to enhancing the Park's connection to the Meewasin Valley, most of which are cited in the following section (3.3 Image/Maintenance). A lot of pedestrian restrictions will be reduced or eliminated with the redesign of Kinsmen Park and the potential addition of parking along Spadina Crescent; however, the proponent needs to include effective solutions for clearly marking pedestrian crossings around the park; both for pedestrians and vehicles.

Pedestrians entering from the west are introduced to Kinsmen Park through a very informal access point. Immediately following the unsightly gravel rear lane that borders the park, there is a paved pathway with unlevel surfaces caused by tree roots. Close proximity to the residential area adjacent to the west side of Kinsmen Park marks this area as a primary access to the park for a large number of City Park residents. The proponent should improve the aesthetics of this entrance while accommodating users that may have limited or impaired mobility. Creating a more welcoming access point at this location will foster pride of ownership among City Park residents and promote legitimate use in Kinsmen Park.

3.3 Activity Support

Activity support is the concept of filling the area with legitimate users (by facilitating or directly scheduling activities or events, so illegitimate users will leave. Places and facilities that are underused can become trouble spots.

The review committee was complimentary of the proposed concept design, noting that it fostered a wide variety of activities in Kinsmen Park during all four seasons. For instance, the land bridge was well received in that it separates conflicting user groups and provides an appealing addition to the park landscape. There are many activities supported by the new design, while still retaining its primary purpose of being a park for children and promoting the city-wide park as a family friendly location.

Conceptual renderings received from the proponent propose moving the Shakespeare on the Saskatchewan festival site northwest from its current location to an underutilised amphitheatre area that is further back from the riverbank. This will allow for, enhancement and rehabilitation of riparian habitat in the area; stabilize the river bank and reduce the pressure placed on it by the festival site; develop and promote a safer Shakespeare on the Saskatchewan site; and open up access to that section of the riverbank for all users. The committee agrees with moving the festival site to the proposed location as it will improve natural surveillance in the area and promote the development of safer pedestrian paths through the area. Moving the Shakespeare site will allow the Meewasin Valley Trail to be rerouted along the river bank and improving

pedestrian and cyclist . This location also promotes legitimate activity in and around the festival site, fosters pride of ownership in the area, and will provide all users with an added level of safety through increased natural surveillance opportunities.

The committee identified that winter activities in the park were well supported. Asphalt pathways will be cleared through the winter months to permit walking in the park and the cross country ski trails will be maintained through the winter months. The inclusion of festival space in the core area of the park will promote a variety of uses, foster community sponsored events to be held throughout the year, and provide opportunities for winter ice sculptures or various other winter activities. The committee commends the proponent for including this element within the design and believe it will generate activity throughout the year

The creation of stronger linkages between Kinsmen Park and the Meewasin Valley Trail network will increase usage of the park and the trail as well as providing trail users with a place to take a break or enjoy a variety of activities. Although a new tenant for the Mendel Building has not been confirmed, the proponent noted that the intention was to keep a community focused tenant at this location. Strong linkages between Kinsmen Park and the Mendel Building will increase visitors to both locations which will support a new tenant and improve services for park users. Currently, services for park users are quite limited in Kinsmen Park. Additional public restrooms, water fountains, and other amenities will be critical to accommodating the larger volumes of people expected once the redesign is completed. This will foster increased activity in the park while providing necessary services to legitimate park users.

Although the concept design identified a number of uses in Kinsmen Park, committee members were unsure if all of the proposed uses align with the needs of park users. Throughout the summer, a number of park visitors can be found playing Frisbee golf along the northwest area of the park. This is quickly becoming a popular game as it has limited start up costs and even lower operating costs. As such, it is felt that the proponent should investigate additional uses to be included in the park design, including Frisbee golf, lawn bowling and/or bocce ball to accommodate the increasing number of users who are using the park space to play alternative sports/games.

3.4 Image/Maintenance

The appearance of a place is instrumental in creating a sense of place or territory and fostering ownership of the area. This makes it less likely for people who do not belong in the area to engage in criminal or nuisance behaviour. The appearance of a well maintained and cared for site will indicate that criminal activity in the area will not be tolerated.

The proponent should be commended for the overall design of the Kinsmen Park Master Plan as it exemplifies good urban design principles and promotes the park as a city-wide park that is open to all users. The proponent has separated uses, built on heritage features, re-established existing uses, as well as designed new attractions to draw people, particularly children, to this

park space. For instance, moving the children’s play area from the west side of the park to be included with the existing children’s attractions and rides creates a centralized children’s area. This will provide clarity to parents and children, while portraying a children friendly atmosphere. Furthermore, the inclusion of neighbourhood type parks within the concept design will bring in City Park residents and allow people to utilize community garden plots to grow fresh vegetables; something they may be prohibited from doing at their place of residence.

The committee discussed concerns regarding the underpass connecting Kinsmen Park to the Meewasin Valley Trail network under Spadina Crescent as noted in section 3.1 Natural Surveillance. The area is currently unkempt with garbage and graffiti vandalism evident throughout. It is important that this underpass receives significant attention in the redesign of the park to ensure that the safety of all.

As noted in section 3.3 Activity Support, the relocation of the Shakespeare on the Saskatchewan festival site will enhance the image of the area, while promoting an added level of safety to Meewasin Valley Trail users and Shakespeare on the Saskatchewan patrons. The relocation of the festival site will permit a realignment of the Meewasin Valley Trail system that will increase pedestrian use in and around the festival site. This will bring more eyes to the Mendel Site parking lots which the community identified as a significant safety concern in the area. The relocation will also permit the restoration of the riparian habitat along the river banks promoting environmentally sustainable initiatives that are more closely related to the Meewasin Valley Authority’s mandate to conserve the natural and cultural heritage resources of the South Saskatchewan River valley in and around Saskatoon.

A cost effective and sustainable solution to graffiti vandalism removal must be included in the park maintenance schedule. Options such as sacrificial coatings, sand blasting, painting over graffiti vandalism, pressure washing, and the application of other graffiti resistant coatings were provided and discussed in previous Park reviews. Additional research will need to be done by the proponent to determine the appropriate process to include in the park’s maintenance schedule that will keep the park amenities clean and attractive.

Additional path systems may cause added confusion among users and emergency personnel. Currently there is no way-finding signage within Kinsmen Park, creating challenges for people to navigate efficiently through the area. The inclusion of effective way-finding and signage will foster a positive image of Kinsmen Park and provide all users with accurate navigational cues to move around and through the park. In addition to this, emergency personnel will benefit from clear way finding and signage, providing quicker response times. This signage needs to be visible and easy to read, should include emergency and maintenance contact information, and encourage patrons to report all suspicious activity to the police.

Concerns regarding the western boundary of Kinsmen Park were identified in the review, specifically noting the railway tie retaining wall along the YWCA’s parking lot, the garbage bins

scattered throughout the gravel rear lane, overhead power lines, and the limited lighting guiding users through the rear lane into the park. Creating a more aesthetically pleasing entrance at this location will improve the image of the park and the neighbourhood, while encouraging residents to visit Kinsmen Park and take ownership of it. A increased level of accessibility for the design of this entrance will ensure that people with varying levels of mobility are able to enjoy the park and make this truly a city-wide park in the heart of Saskatoon's downtown.

3.5 Territoriality

Territoriality is the concept of creating/fostering places that are adopted by legitimate users of the space (i.e. take ownership), making it less likely that people who do not belong will engage in criminal or nuisance behaviour at that location.

Currently, Kinsmen Park has limited informational signage identifying activities within the park, planned events or attractions, or mapping to assist visitors in navigation through Kinsmen Park. Developing appropriate signage will promote a variety of uses in the park and foster territoriality in and around the park. This signage should include interactive mapping that, when used with way-finding signage, eases the movement of pedestrians through the park and assists emergency personnel in case of emergency. This signage should be located at all major entrances and also double as a welcome sign to Kinsmen Park. Building on the city-wide theme, informational signage will encourage legitimate use within the park, encouraging the community as a whole to take ownership of Kinsmen Park.

The committee was complimentary to the inclusion of neighbourhood type parks adjacent to the surrounding neighbourhood. By including neighbourhood type parks within the overall design, neighbouring communities are more likely to engage in community activities within Kinsmen Park which will emphasis territoriality in the park. As more residents take ownership of the park, illegitimate users will be discouraged from carrying out their transgressions which will increase user's feelings of safety and increase legitimate use in Kinsmen Park.

3.6 Movement Predictors

Movement predictors force people (especially pedestrians and cyclists) along a particular route or path, without providing obvious alternatives. Potential attackers can predict where a person will end up once they are on a certain path (i.e. pedestrian tunnel or walkway).

The Committee raised concerns regarding movement predictability in the area around the Mendel Building. Currently, the riparian habitat near the river banks is unkempt and overgrown creating areas of uncertainty for users. The pathway that lies between the Mendel Building parking lots and the river bank are overgrown which limits natural surveillance of the area, blocks light from the pathway, and creates ambiguity among pathway users. Although the proponent has proposed new pathways through this area that begin to address these safety concerns, the construction of these proposed pathways is not slated for in the initial development

phases. It is the Committee's understanding that work on these pathways and the adjacent parking lots will not occur for the first 10 to 15 years of development.

The Mendel Site Safety Audit (May 5, 2011), which is a completed recommendation from the City Park Local Area Plan (April 26, 2010), clearly sets out the issues and recommendations of the area. The concerns at the Mendel Site are long standing and not addressing them for upwards of 10 years is not acceptable. A new tenant in the Mendel building and a new set of users should start out with a safe area. The recommendations from the Mendel Site Safety Audit should be included in the completion of the Kinsmen Park Master Plan but should have a higher priority. This will ensure a cohesive final design for the area.

3.7 Conflicting User Groups

This principle refers to instances where different user groups may conflict. In this case the conflict may arise with different users trying to use the same space for different activities.

The proposed land bridge is an innovative approach to separating conflicting users who would normally be competing for the same space. However, the structure is similar to a pedestrian underpass and should address all the issues that typically arise from Saskatoon's existing underpasses. These issues centre on an appropriate width and height, lighting, sight lines, landscaping, and signage.

Extra consideration was paid to the path system in the park, creating multi-use paths that are 4 metres wide, secondary pathways that are 3 metres wide and tertiary paths that are 2 metres wide. By including the variance in path widths user groups will be provided with a varying degree of separation and path selection to make their way through the park and conflicting user groups will be provided with a suitable amount of space to carry out their activities. However, the Committee would recommend that pathway width not be less than 3.0 metres to ensure appropriate multi modal use throughout the park.

The conflict between pedestrians and vehicles was discussed at length in the review of this project, citing that there are numerous locations where conflicts arise. Drivers exiting from the University Bridge onto Spadina Crescent are often unaware of pedestrians attempting to cross Spadina Crescent at the west end of the bridge. This is an area of significant concern as pedestrians and drivers are often put in a position that compromises their safety. The proponent believes that the inclusion of a traffic circle will alleviate this point of concern; however, the this part of the design has not been confirmed. The proponent should make certain that this conflict is mediated within the design of Kinsmen Park which will reduce vehicular and pedestrian conflict.

3.8 Connectivity, Cohesion, and Culture

Connectivity refers to the social and physical interactions and relationships external to the site itself. It recognizes that any given place should not operate in isolation from surrounding neighbourhoods and/or areas.

Cohesion is the supportive relationships and interactions between all users of a place to support and maintain a sense of safety. Design can enhance the opportunity for positive social cohesion by providing physical places where this can occur, such as activity rooms, park gazebos, or multi-purpose rooms in schools and community centers.

Culture is also known as “placemaking”, which involves artistic, musical, sports, or other local cultural events to bring people together in time and purpose. Community memorials, public murals, and other cultural features enhance this principal and contribute to the cohesiveness of the area.

The proponent has built on existing uses within the park and consulted the community and various user groups throughout the consultation process. This is evident in the proposal. The committee believes that the conceptual design is an improvement to the current state of Kinsmen Park but had a few concerns related to community cohesion, connectivity, and culture.

The proponent identified historical and restored areas in Kinsmen Park that should be identified to park users. Utilising commemorative plaques or interpretive signage will not only identify these areas within the park, but will provide educational elements to the park that can be appreciated by all users. For example, interpretive signage can be used to aide in plant species identification and assist park users in learning about their environment as a whole. Engaging the users of the park in the historic and restored elements will foster the community connection to the area while promoting a sense of ownership and responsibility among them. As a city-wide asset, the inclusion of commemorative plaques and interpretive signage will build on the park’s community focus, and generate alternative activities for parents and children to enjoy.

Kinsmen Park presents an opportunity for community members to bond with neighbours and other residents of Saskatoon. Whether it is just in passing, playing with their children at the children’s activity centre, or participation in one of the many proposed activities in the park, park users will be provided with ample opportunities to engage each other and build on the cohesion of the city as a whole. The inclusion of a festival area in Kinsmen Park creates an open invitation for a number of cultural events to assist in the promotion of multi-cultural acceptance and understanding in our growing city. As the oldest park space in Saskatoon, Kinsmen Park’s historic background is a suitable location to host large cultural events with its central location and abundance of parking satisfying requirements that restrict large events from happening elsewhere.

4.0 Recommendations

- 4.1 That the proponent includes all the recommendations from the Mendel Site Safety Audit Report in the first stage of redevelopment of the Kinsmen Park Master Plan.
- 4.2 That the appropriate graffiti vandalism removal strategies and processes be established for all park amenities.
- 4.3 That the Spadina pedestrian underpass redevelopment includes widening the structure, if possible. If this is not possible, significant improvement in lighting, access, landscaping, and grade improvements must be made.
- 4.4 That the proponents re-evaluate the parking lot on the west side of the park and adjacent to City Hospital as it is too isolated and puts users at risk.
- 4.5 That proponents establish a lighting plan for the park that includes the potential for putting the lights on a timer and turning the lights off when the park is effectively closed.
- 4.6 That the west entrance of the park be given special treatment to ensure it is seen as a formal entrance to the park.
- 4.7 That the ski bridge be designed to address the issues that typically arise from a pedestrian underpass, including width, lighting, grade, and aesthetics.
- 4.8 That a cohesive and clear plan be established for signage and way-finding.
- 4.9 That the park pathways not be less than 3.0 metres in width.

5.0 Attachments

- 5.1 Attachment 1:**
Appendix A to City of Saskatoon Administrative Policy A09-034 – Principles of Crime Prevention Through Environmental Design (CPTED) Principles.

- 5.2 Attachment 2:**
Selected 2010 Crime Stats Map of the Kinsmen Park and Mendel Site areas.

**APPENDIX A TO CITY OF SASKATOON
ADMINISTRATIVE POLICY A09-034 – CPTED Review**

Principles of Crime Prevention Through Environmental Design (CPTED):

Natural Surveillance: is the concept of putting “eyes on the street”, making a place unattractive for potential illegitimate behaviour. Street design, landscaping, lighting and site design (i.e. neighbourhood layout) all influence the potential for natural surveillance.

Access Control: is controlling who goes in and out of a neighbourhood, park, building, etc. Access control includes creating a sense of “turf”, for legitimate users, while focusing on formal and informal entry and exit points.

Image: is the appearance of a place and how this is instrumental in creating a sense of place or territory for legitimate users of the space. A place that does not appear to be maintained or cared for may indicate to criminals that the place will not be defended and criminal activity in the area will be tolerated.

Territoriality: is the concept of creating and fostering places that are adopted by the legitimate users of the space (i.e. take ownership), making it less likely for people who do not belong to engage in criminal or nuisance behaviour at that location.

Conflicting User Groups: refers to instances where different user groups may conflict (e.g. a school near industrial development or a seniors centre near a nightclub). Careful consideration of compatible land uses can minimize potential conflicts between groups.

Activity Support: is the concept of filling an area with legitimate users (by facilitating or directly scheduling activities or events) so potential offenders cannot offend with impunity. Places and facilities that are underused can become locations with the potential for criminal activity.

Crime Generators: are activity nodes that may generate crime. For example, a 24 hour convenience or liquor store may not be a problem in itself but where it is located in the community may cause conflict or unforeseen secondary activity. The location of some land uses is critical to ensuring an activity does not increase the opportunities for crime to occur or reduce users and residents perceptions of their safety in the area.

Land Use Mix: is the concept that diversity in land uses can be a contributor or detractor for crime opportunities. Separating land uses (i.e. residential) from each other can create places that are unused during certain times of the day.

Movement Predictors: force people, especially pedestrians and cyclists, along a particular route or path, without providing obvious alternative escape routes or strategies for safety. Potential attackers can predict where persons will end up once they are on a certain path (e.g. a pedestrian tunnel or walkway).

Displacement: can be positive or negative so it is critical to understand how crime may move in time or space and what the impact may be. In general, the displacement that must be considered is:

Negative displacement – crime movement makes things worse;

Diffusion of benefits – displacement can reduce the overall number of crimes more widely than expected;

Positive displacement – opportunities for crime are intentionally displaced which minimizes the impact of the crime.

Cohesion: is the supportive relationships and interactions between all users of a place to support and maintain a sense of safety. Though not a specific urban design function, design can enhance the opportunity for positive social cohesion by providing physical places where this can occur, such as activity rooms, park gazebos, or multi-purpose rooms in schools and community centers. In some cases property owners or building managers can provide opportunities for social programming. This will increase the ability of local residents or users of a space to positively address issues as they arise.

Connectivity: refers to the social and physical interactions and relationships external to the site itself. It recognizes that any given place should not operate in isolation from surrounding neighbourhoods and/or areas. Features such as walkways and roadways connecting a particular land use to the surrounding neighbourhoods and/or areas can accomplish this. Features such as centrally located community centers or program offices can also encourage activities to enhance this.

Capacity: is the ability for any given space or neighbourhood to support its intended use. For example, excessive quantities of similar land uses in too small an area, such as abandoned buildings or bars, can create opportunities for crime. When a place is functioning either over or under capacity, it can be detrimental to neighbourhood safety.

Culture: is the overall makeup and expression of the users of a place. Also known as “placemaking”, it involves artistic, musical, sports, or other local cultural events to bring people together in time and purpose. Physical designs that can encourage this include public multi-purpose facilities, sports facilities, and areas that local artists and musicians might use. Community memorials, public murals, and other cultural features also enhance this. These features create a unique context of the environment and help determine the design principles and policies that best support the well being of all user groups and contribute to their cohesiveness.

Kinsmen Park Area
2010 Crime Stats



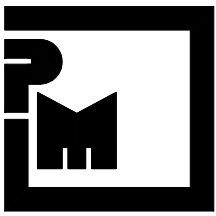
LEGEND	
Break & Enter (Residential and Business)	1 - 4
Property Theft (over \$5000)	1 - 2
Property Theft (under \$5000)	1 - 8
Mischief	1 - 5
Violence	1 - 3
Assault (excluding sexual)	1 - 3
Sexual Assault	1 - 4
Drug Related	1 - 3
Liquor Related	1 - 8



September 2011
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A10^{PH.1} ESA: KINSMEN PARK

Appendix 10 includes a Phase 1 Environmental Site Assessment for Kinsmen Park on the west side of Spadina Crescent.



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**PHASE I ENVIRONMENTAL SITE ASSESSMENT
KINSMEN PARK
945 SPADINA CRESCENT EAST
SASKATOON, SASKATCHEWAN
PMEL FILE NO. S11-7721
SEPTEMBER 27, 2011**

*PARCEL K, PLAN 87S34935
SASKATOON, SASKATCHEWAN*

PREPARED FOR:

**CITY OF SASKATOON
ENVIRONMENTAL SERVICES BRANCH
3RD FLOOR T & T BUILDING
SUITE 330-350 3RD AVENUE NORTH
SASKATOON, SASKATCHEWAN
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**ATTENTION: STEPHANIE LANGEVIN, A.Sc.T.,
ENGINEER I**

PRIVILEGED AND CONFIDENTIAL

EXECUTIVE SUMMARY

A Phase I Environmental Site Assessment (ESA) was conducted for the property legally described as:

- *Parcel K, Plan 87S34935, Saskatoon, Saskatchewan*

The subject property is located on the west side of Spadina Crescent East, between 25th Street and Queen Street in the City Park District of the City of Saskatoon, Saskatchewan. The civic address of the site is 945 Spadina Crescent East.

In accordance with CSA Z768-01 (R2006), the Phase I ESA consisted of a review of available background and historical information; a visual site review; and a report of our findings. The purpose of the Phase I ESA was to determine the potential existence of contaminants and/or environmental concerns on the subject property.

SITE DESCRIPTION/HISTORY

A race track and grandstand were formerly located in the southern portion of the park from 1905 until removal in the 1960's. The subject property was renamed as Kinsmen Park in 1947. Further development in the 1950's includes: fields for baseball, fastball, football and cricket; seven artificial lakes; picnic grounds; and a children's amusement area which now includes a merry-go-round, miniature train, concession and ferris wheel. Several seasonal buildings are located on the subject property which include a concession stand, washrooms and change rooms.

ENVIRONMENTAL HAZARD POTENTIAL

Based on the information reviewed, and the observations made during the visual site review, the subject property is considered to have a low environmental hazard potential and no further investigation (i.e., Phase II ESA) is required at this time. However the following potential environmental management concerns have been identified for the subject property:

- The Federal Government implemented the Ozone-Depleting Substances (ODS) Regulations in 1994 to amend controls, and, on the manufacture and use of chlorofluorocarbons (CFCs), halons, carbon tetrachloride and methyl chloroform. Since the subject building were constructed prior to 1994, it is possible that ODS containing equipment (i.e., refrigerators, etc.) are present in the subject building. It is recommended that all handling of ODSs be performed by certified technicians in accordance with applicable guidelines and/or regulations.
- Buildings, constructed prior to 1985, are likely to have asbestos containing materials (ACMs). ACMs that can be crumbled, powdered or pulverized by hand pressure (i.e., friable), were commonly used in spray applied fireproofing until 1973, and in decorative or finishing plasters (i.e., drywall mud) and mechanical system insulation until the early 1980s. Manufactured building products (i.e., Non-Friable) including: vinyl floor tile; sheet flooring; ceiling tiles; pipe gaskets; roofing materials; siding and numerous other products typically contained asbestos until the mid 1980s. A small number of non-friable ACMs are still used in building products. Since buildings at the site were reportedly constructed in the 1970's and 1980's, there is a potential for both friable and non-friable ACMs to be present. However, most of the buildings constructed prior to the 1980's have no insulation, plaster or mechanical equipment. Therefore, the likelihood that friable ACMs exist at the subject property is considered to be low.

- Based on the age of the subject buildings (built prior to 2005) and that Canadian regulations limited the allowable concentrations of mercury and lead to 0.001 and 0.06 percent, respectively, by weight in 2005, it is possible that painted surfaces contain elevated concentrations of mercury and/or lead. As such, it is recommended that painted surfaces be kept in good repair and that all work performed on painted surfaces be performed in accordance with applicable guidelines/regulations.

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1.0 INTRODUCTION

A Phase I Environmental Site Assessment (ESA) was conducted for the property legally described as:

- *Parcel K, Plan 87S34935, Saskatoon, Saskatchewan*

The subject property is located on the west side of Spadina Crescent East, between 25th Street and Queen Street in the City Park District of the City of Saskatoon, Saskatchewan. The civic address of the site is 945 Spadina Crescent East.

Written authorization (email) to complete this investigation was provided by Stephanie Langevin, A.Sc.T., Engineer I, with the City of Saskatoon on May 10, 2011.

In accordance with CSA Z768-01 (R2006), the Phase I ESA consisted of a review of available background and historical information; a visual site review; and a report of our findings. The purpose of the Phase I ESA was to determine the potential existence of contaminants and/or environmental concerns on the subject property.

2.0 REVIEW OF BACKGROUND AND HISTORICAL INFORMATION

Historical information available for the subject site was reviewed to identify potential environmental concerns, which may not be evident, based on current site conditions. Available historical information was reviewed for items of environmental significance including: former industrial use of the site; historical storage tank locations; and historical use of neighbouring properties. Information sources available and reviewed for the subject site included: aerial (stereo pair) photographs; Land Titles records; zoning records, fire department records; and an environmental file search performed by Saskatchewan Environment. In addition to the above, a review of general background information for the site and area was conducted. Items collected and reviewed included topographic and geologic maps and hydrogeological studies.

2.1 Site Description

The location of the subject property is shown on the Key Plan and Surrounding Land Use Drawing, Drawing No. S11-7721-1, while details of the subject property are shown on the Site Plan, Drawing No. S11-7721-2. A race track and grandstand were formerly located in the southern portion of the park from 1905 until removal in the 1960's. The subject property was renamed as Kinsmen Park in 1947. Further development in the 1950's includes: fields for baseball, fastball, football and cricket; seven artificial lakes; picnic grounds; and a children's amusement area which now includes a merry-go-round, miniature train, concession and ferris wheel. Several seasonal buildings are located on the subject property which include a concession stand, washrooms and change rooms.

2.2 Background Information

2.2.1 Physiography and Regional Geology

The subject property lies in the physiographic region known as the Saskatchewan Rivers Plain (Acton et. al., 1960). The Saskatchewan Rivers Plain is characterized as gently undulating to rolling glacial lacustrine-alluvial plains (glacial lake plains), aeolian plains (dunes) and till plains. The surficial soil deposits consist of variable textured lacustrine and alluvial sands, silts and clays, aeolian sands, glacial till and local bedrock exposures in the South Saskatchewan River.

According to Christiansen (1973), the regional surficial soil conditions in this area consist of approximately 60 m of glacial till and stratified drift (sand, silt and clay). The above deposits are underlain by marine silt and clay shale of the Bearpaw Formation (Christiansen, 1973).

The land surface elevation at the site was approximately 480 m (Geodetic) and regionally sloped gradually downwards to the South Saskatchewan River (approximately 474 m Geodetic), located approximately 160 m east of the subject property at its nearest point.

2.2.2 Hydrogeology

An examination of hydrogeological data (Christiansen, 1973) for this region revealed the following observations:

1. The primary source of water in this region is drift aquifers above or between glacial till strata and the Empress Group (Tyner Valley Aquifer) between the base of the glacial till and the surface of the bedrock.
2. The study site is located in a region of groundwater recharge.
3. The South Saskatchewan River is a discharge receptor for many of the aquifer systems in the Saskatoon area. The inferred regional groundwater flow would be in an easterly direction towards the South Saskatchewan River.
4. The closest major surface water body to the site is the South Saskatchewan River, located at its closest point, approximately 160 m east of the site.

2.2.3 Water Supply

The water supply for the City of Saskatoon is obtained via a piped distribution system with a river intake on the South Saskatchewan River.

2.3 Air Photograph Review

Historical aerial photographs dated 1949, 1967, 1979 and 1998 were obtained for the site and examined to identify site specific land-use which may have resulted in environmental concerns on and/or adjacent to the site.

A summary of observations made has been presented below. A selection of aerial photographs has been included in Appendix A.

1949: A racetrack is visible on the southern portion of the subject property. King Edward School is present to the southwest, while City Hospital is present to the northwest. Tennis courts are present across Spadina Crescent, next to the riverbank.

1967: The racetrack has been removed from the subject property. The Spadina interchange has been constructed to the southeast of the site, where the riverside tennis courts were previously located. The Mendel Art Gallery is now present across Spadina Crescent, to the east of the subject property.

1979: The subject property and surrounding land use are relatively unchanged from 1967.

1998: The subject property and surrounding land use are relatively unchanged from 1979 and the present level of development.

2.4 Street Directories

The subject property is not listed in the Henderson Directories last published in 2000. Surrounding properties to the site are predominantly listed as residential.

2.5 Zoning

The subject property is zoned M3 (General Institutional Zoning District) as defined by the City of Saskatoon Zoning Bylaw No. 7800, dated December, 1998. The intent of the M3 zoning is to facilitate a wide range of institutional and community activities, as well as medium and high density residential uses, within suburban centres and other strategically located areas.

Typical uses include one-unit and multiple-unit dwellings, dwelling groups, offices and office buildings, places of worship, private schools, medical clinics, public parks and playgrounds, radio and television studios, financial institutions, research laboratories, private clubs and banquet halls.

2.6 Land Titles Search

A land titles search for the subject property was performed for the subject property. No potential environmental concerns were identified during the land titles search.

2.7 Building Permit Records

A building permit search and visual review of available building drawings was performed at the City of Saskatoon Building Department. The building permit search revealed that no historic building permits were on file for the subject property.

2.8 City of Saskatoon Fire and Protective Services - File Search

A file search conducted by the City of Saskatoon Fire and Protective Services for the subject property, revealed that no records of spills, leaks, storage of dangerous goods or fire orders were on file for the subject property.

2.9 Fire Insurance Maps

Review of Fire Insurance Maps (FIM) dated 1911, 1950, and 1963 revealed the following:

1911: Subject property not shown.

1950: Kinsmen Park shown, City Hospital Present to the northwest.

1963: Subject property relatively unchanged from 1950

2.10 Saskatchewan Ministry of Environment - Environmental File Search

A file search of Saskatchewan Ministry of Environment files for the subject property revealed the following:

1. The subject property is not registered pursuant to the Hazardous Substances and Waste Dangerous Goods Regulations.
2. There were no reported spills pursuant to Environmental Spill Control Regulations for the subject site.
3. The Mendel Art Gallery, located at 950 Spadina Crescent East, is registered for chemical storage (water softening chemicals). Based on the separation distance and the nature/volume of chemicals stored, releases (if any) are considered to represent a low likelihood of impact towards the subject property.

2.11 Interviews

A solicited interview conducted on June 9, 2011 with Mr. Brad Babyak, with Leisure Services, revealed the following:

1. The train located on site is electric powered.
2. All buildings on site are seasonal and not insulated.
3. There are no storage tanks or chemicals located on the subject property.
4. The buildings on site are connected to the City of Saskatoon sewer and water systems.

2.12 ERIS ECOLOG Database Report

An ERIS ECOLOG database report was completed for the subject property. The database report provides the search results of various Federal, Provincial and Private source databases for a 250 m radius surrounding the subject property. The results of the database search for the subject property revealed that four properties were registered with the hazardous substance storage tank database, and eleven properties were listed as hazardous material storage sites. Based on the separation distance, property use, and expected volume of materials stored, releases (if any), from these facilities represent a low likelihood of impact towards the subject property.

The ERIS ECOLOG database report for the subject property has been provided in Appendix B.

3.0 VISUAL SITE REVIEW

PMEL personnel conducted a visual site review of the subject property on June 9, 2010. Select photographs taken of the subject property have been included in Appendix C. Brief summaries of the observations made during the review are presented in the following sub-sections.

3.1 Property

1. A gravelled parking lot is present on the east side of the subject property.
2. An amusement park area is located to the southeast of the parking lot. Structures in this area include: a concession; washrooms; a merry-go-round; and a miniature train ride.
3. Ball diamonds are located in the southern portion of the subject property.
4. A paddling pool, change rooms and a play area are located in the western section of the park.
5. A small creek runs from the east side of the subject property to the northeast corner.

3.2 Surrounding Land Use

Surrounding land use in the vicinity of the site was primarily residential and is shown on the Key Plan and Surrounding Land Use, Drawing No. S11-7721-1. Surrounding land use to the site includes:

North: City Hospital and parking lots.

East: Spadina Crescent East followed by the Mendel Art Gallery and the Shakespeare on the Saskatchewan grounds.

South: 25th Street East followed by apartment buildings and several commercial businesses (including the Park Town).

West: The YMCA and several apartment buildings.

3.3 Waste Management

3.3.1 Liquid Waste

Sanitary sewage and wash water generated on the subject property are discharged into the City of Saskatoon sanitary sewer system.

3.3.2 Solid Waste

Solid waste is reportedly taken offsite for disposal.

3.3.3 Hazardous Substances and Waste Dangerous Goods

No hazardous substances or waste dangerous goods are reportedly stored at the subject site.

3.4 Storage Tanks

No Aboveground Storage Tanks (ASTs) or visible evidence (i.e., pump islands, vent pipes etc.) of (on site) Underground Storage Tanks (UST's) were apparent on the subject property at the time of the visual site review.

3.5 Surface Staining/Stressed Vegetation and Soil Fill

No evidence of surface staining, stressed vegetation and/or soil fill was apparent during the visual site review.

3.6 Polychlorinated Biphenyls (PCB)

The Federal Chlorobiphenyls Regulation, SQR/91-152, prohibited the use of Polychlorinated Biphenyls (PCBs) in electrical equipment installed after July 1, 1980. The most recent Regulation (i.e., SOR/2008-273) aims to eliminate the use of both low level (i.e., 50 to 500 mg/kg) and high level PCBs (i.e., greater than 500 mg/kg) on or within 100 metres of a sensitive site (e.g., drinking water treatment facility, school, hospital, etc.) by December 31, 2009. Light ballasts, pole-top transformers and associated pole mounted electrical equipment with low level PCBs (i.e., 50 to 500 mg/kg) may be used until December 31, 2025 at non-sensitive sites. Since the buildings on site were constructed in the 1970's and 1980's, it is possible that electrical equipment at the subject property contains low level PCBs. However, most of the buildings constructed prior to the 1980's have no power or light ballasts. Therefore, the likelihood that electrical equipment at the subject property contains PCBs is considered to be low.

3.7 Radon Potential

Radon is a naturally occurring radioactive gas originating from degradation of naturally occurring uranium in the soil. Radon gas can enter buildings by seeping through cracks in the foundation walls and floors. In light of the above, a potential exists for accumulation of radon gas in the subject building. However, considering that air flow within buildings at the site are well-circulated and there are no basements or occupied spaces beneath the subject buildings, radon is not suspected to be an environmental issue of concern at the site.

3.8 Building/Building Materials

3.8.1 Lead Paint

Canadian regulations (Hazardous Products Act) limited the amount of lead and mercury in paint to 0.06 and 0.001, respectively, percent by weight in 2005. Since the buildings on the subject property were constructed prior to 2005 it is possible that paint concentrations exceeding the allowable lead and mercury criteria exist within the subject buildings.

3.8.2 Urea Formaldehyde Foam Insulation (UFFI)

The majority of Urea Formaldehyde Foam Insulation (UFFI) was installed in new and existing construction in Canada between 1975 and 1978 as part of the Canadian Home Insulation Program. UFFI was banned in Canada in December 1980 due to health concerns associated with off-gassing of formaldehyde. Recent studies conducted in UFFI insulated buildings determined that interior formaldehyde gas levels were at non-significant levels. In light of the above, and that UFFI has been banned for almost 30 years, it is considered unlikely that formaldehyde levels in the subject buildings (if any) associated with off-gassing of UFFI would present a health risk to building occupants. No evidence of UFFI was apparent during the limited (non-intrusive) visual site review.

3.8.3 Asbestos Containing Materials (ACMs)

Buildings, constructed prior to 1985, are likely to have Asbestos Containing Materials (ACMs). ACMs that can be crumbled, powdered or pulverized by hand pressure (i.e., friable), were commonly used in spray applied fireproofing until 1973, and in decorative or finishing plasters (i.e., drywall mud) and mechanical system insulation until the early 1980s. Manufactured building products (i.e., Non-Friable) including: vinyl floor tile; sheet flooring; ceiling tiles; pipe gaskets; roofing materials; siding and numerous other products typically contained asbestos until the mid 1980s. A small number of non-friable ACMs are still used in building products.

Based on the age of the buildings at the site (reportedly constructed in 1970s and 1980s), there is a potential for both friable and non-friable ACMs to be present in the subject buildings. Potential non-friable ACMs identified at the subject property include: vinyl floor tile and roofing materials. However, most of the buildings constructed prior to the 1980's have no insulation, plaster or mechanical equipment. Therefore, the likelihood that friable ACMs exist at the subject property is considered to be low.

3.9 Air Emissions

Other than vents and heating fixtures, no obvious sources of emissions were present. No adverse odours were recorded during the visual site review.

3.10 Heating, Ventilation and Air-Conditioning (HVAC)

None of the buildings on the subject property have heating or air-conditioning units installed.

3.11 Ozone-Depleting Substances (ODSs)

The Federal Government implemented the Ozone-Depleting Substances (ODSs) Regulations in 1994 to amend controls, on the manufacture and use of chlorofluorocarbons (CFCs), halons, carbon tetrachloride and methyl chloroform. Since the buildings on the subject property was constructed in the 1970's and 1980's, it is possible that ODS containing equipment (i.e., refrigerators, etc.) are present in the subject buildings.

3.12 Indoor Air Quality Moulds

No air quality problems reportedly exist at the site.

3.13 Noise and Vibration

Apart from vehicle traffic, no obvious sources of adverse noise and/or vibration were present at the time of the visual site review.

3.14 Electromagnetic Fields (EMFs)

No high-tension transmission lines with the potential to generate significant Electromagnetic Fields (EMFs) were located on the subject property.

3.15 Radioactive Materials/Radiation Sources

No radioactive sources requiring special licensing were apparent during the visual site review.

3.16 Neighbouring Properties

No potential environmental concerns were identified with the neighbouring properties to the site. It should be recognized that the precise nature of the activities carried out on the surrounding sites and their potential impacts to the subject site are outside the scope of this report. Potential contamination associated with surrounding land use cannot be confirmed without further investigation including detailed inspections of the surrounding properties.

3.17 Mercury

Based on the lack of heating systems in the subject buildings it is unlikely that mercury containing equipment (i.e., thermostats) would be present in the subject buildings.

4.0 ENVIRONMENTAL HAZARD POTENTIAL

Based on the information reviewed, and the observations made during the visual site review, the subject property is considered to have a low environmental hazard potential and no further investigation (i.e., Phase II ESA) is required at this time. However the following potential environmental management concerns have been identified for the subject property:

- The Federal Government implemented the Ozone-Depleting Substances (ODSs) Regulations in 1994 to amend controls, and, on the manufacture and use of chlorofluorocarbons (CFCs), halons, carbon tetrachloride and methyl chloroform. Since the subject building were constructed prior to 1994, it is possible that ODS containing equipment (i.e., refrigerators, etc.) are present in the subject building. It is recommended that all handling of ODSs be performed by certified technicians in accordance with applicable guidelines and/or regulations.

- Buildings, constructed prior to 1985, are likely to have asbestos containing materials (ACMs). ACMs that can be crumbled, powdered or pulverized by hand pressure (i.e., friable), were commonly used in spray applied fireproofing until 1973, and in decorative or finishing plasters (i.e., drywall mud) and mechanical system insulation until the early 1980s. Manufactured building products (i.e., Non-Friable) including: vinyl floor tile; sheet flooring; ceiling tiles; pipe gaskets; roofing materials; siding and numerous other products typically contained asbestos until the mid 1980s. A small number of non-friable ACMs are still used in building products. Since the buildings at the site were reportedly constructed in the 1970's and 1980's, there is a potential for both friable and non-friable ACMs to be present. However, most of the buildings constructed prior to the 1980's have no insulation, plaster or mechanical equipment. Therefore, the likelihood that friable ACMs exist at the subject property is considered to be low.
- Based on the age of the subject buildings (built prior to 2005) and that Canadian regulations limited the allowable concentrations of mercury and lead to 0.001 and 0.06 percent, respectively, by weight in 2005, it is possible that painted surfaces contain elevated concentrations of mercury and/or lead. As such, it is recommended that painted surfaces be kept in good repair and that all work performed on painted surfaces be performed in accordance with applicable guidelines/regulations.

5.0 CLOSURE

A Phase I Environmental Site Assessment (ESA) was conducted for the property legally described as:

- *Parcel K, Plan 87S34935, Saskatoon, Saskatchewan*

The subject property is located on the west side of Spadina Crescent East, between 25th Street and Queen Street in the City Park District of the City of Saskatoon, Saskatchewan. The civic address of the site is 945 Spadina Crescent East.

This Phase I ESA consisted of a review of sequential aerial photographs, historical records, Provincial Land Titles, a visual site review, interviews and file searches conducted by the City of Saskatoon Fire Department, the City of Saskatoon Building Department and Saskatchewan Ministry of the Environment.

If additional information becomes available regarding the environmental hazard potential of this site, our report and recommendations should be reviewed in the light of any new information.

The Phase I ESA report has been prepared for the exclusive use of the City of Saskatoon and their agents for specific application to Kinsmen Park (945 Spadina Crescent East), Saskatoon, Saskatchewan. It has been prepared in accordance with generally accepted geoenvironmental engineering practices and no other warranty, express or implied, is made.

Any uses, which a Third Party makes of this report, or any reliance on decisions to be made based on it, are the responsibility of such Third Parties. P. Machibroda Engineering Ltd. accepts no responsibility for damages, if any, suffered by any Third Party as a result of decisions made or actions based on this report.

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We trust that the report fulfills your requirements for this project. Should you have any questions or require additional information, please contact us.

P. MACHIBRODA ENGINEERING LTD.

Michael Kuley
Michael Kuley, Engineer in Training

[Handwritten signature]

Ray Machibroda, P. Eng., M. Sc.
MK:RM:clb

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6.0 REFERENCES

Acton, D. F., Clayton, J. S., Ellis, J. G., Christiansen, E. A., and Kupsch, W. O. 1960. Physiographic divisions of Saskatchewan. Saskatchewan Research Council, Map No. 1.

Christiansen, E. A. 1967. Geology and Groundwater Resources of the Saskatoon Area (73 – B), Saskatchewan Research Council, Geology Division, Saskatoon, Canada, Map No. 7.

7.0 QUALIFICATIONS OF ASSESSORS

Michael Kuley, B. Sc. has a degree in Civil Engineering from the University of Saskatchewan. He has completed over 100 Phase I ESA's at a variety of sites including industrial, commercial, and residential properties. His experience also includes assessment and remediation of petroleum hydrocarbon, heavy metal and polyaromatic hydrocarbon impacted sites.

Ray Machibroda, P. Eng, M.Sc. is a senior geoenvironmental engineer with over 20 years of experience. He has conducted hundreds of Environmental Site Assessments and is experienced in both assessment and remediation of sites including industrial commercial and residential properties. His experience also includes assessment of landfills and sewage lagoons, risk assessments, and Brownfield redevelopment.



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LEGEND

 -PROPERTY LINE



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DRAWING TITLE:

KEY PLAN AND SURROUNDING LAND USE

PROJECT:

**PHASE I - ENVIRONMENTAL SITE ASSESSMENT
 KINSMEN PARK AND AREA, SASKATOON, SK**

APPROVED BY:

M .KULEY

DRAWN BY:

G. SOLTYS

DRAWING NUMBER:

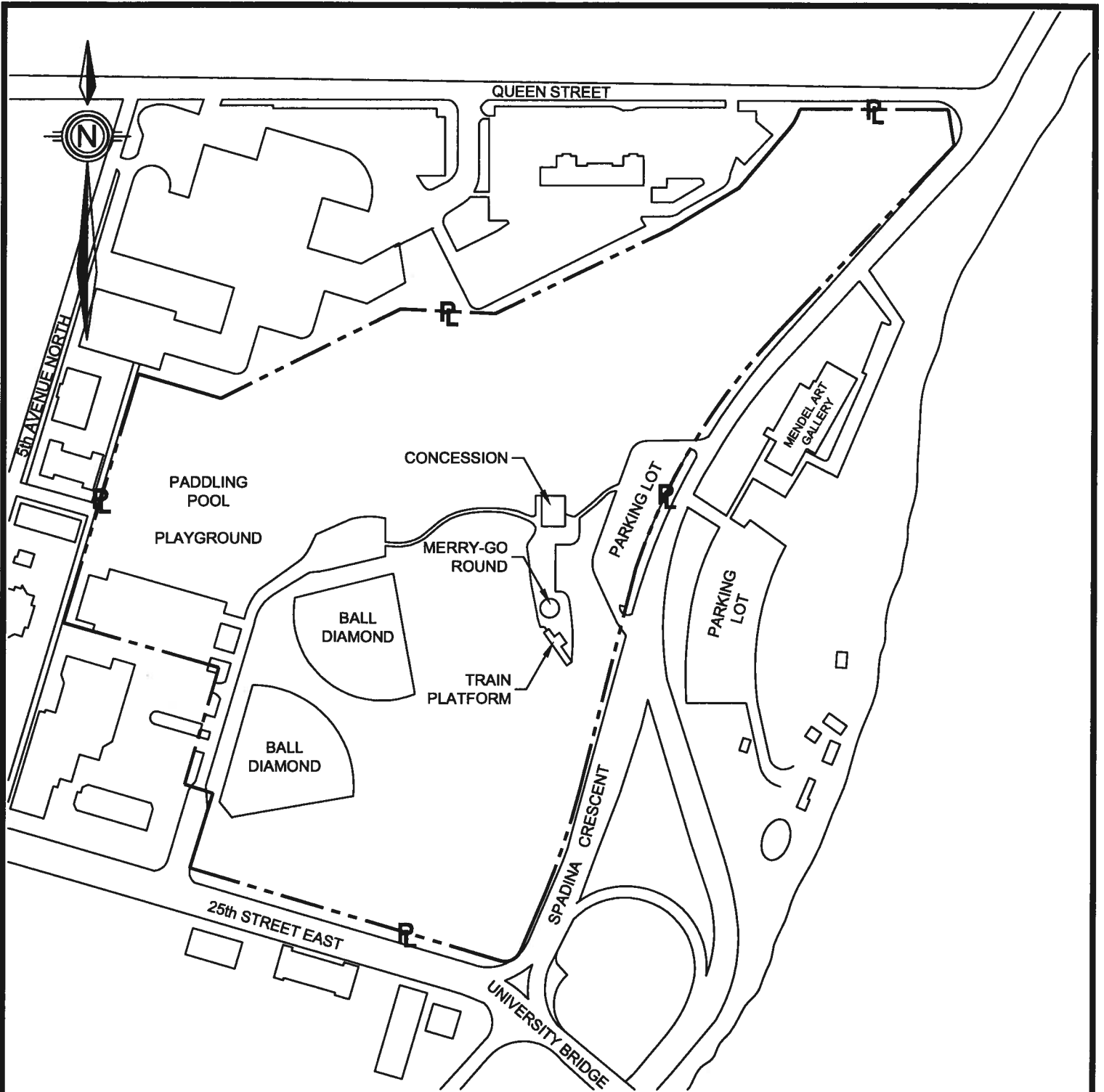
S11-7721-1

DATE:

AUGUST, 2011

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DRAWING TITLE:

SITE PLAN

PROJECT:

**PHASE I - ENVIRONMENTAL SITE ASSESSMENT
KINSMEN PARK AND AREA, SASKATOON, SK**

APPROVED BY:

M. KULEY

DRAWN BY:

G. SOLTYS

DRAWING NUMBER:

S11-7721-2

DATE:

AUGUST, 2011

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APPENDIX A

Aerial Photographs



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LEGEND

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DRAWING TITLE:

AERIAL PHOTOGRAPH (1949)

PROJECT:

**PHASE I - ENVIRONMENTAL SITE ASSESSMENT
 KINSMEN PARK AND AREA MASTER PLAN, SASKATOON, SK**

APPROVED BY:

M. KULEY

DRAWN BY:

G. SOLTYS

DRAWING NUMBER:

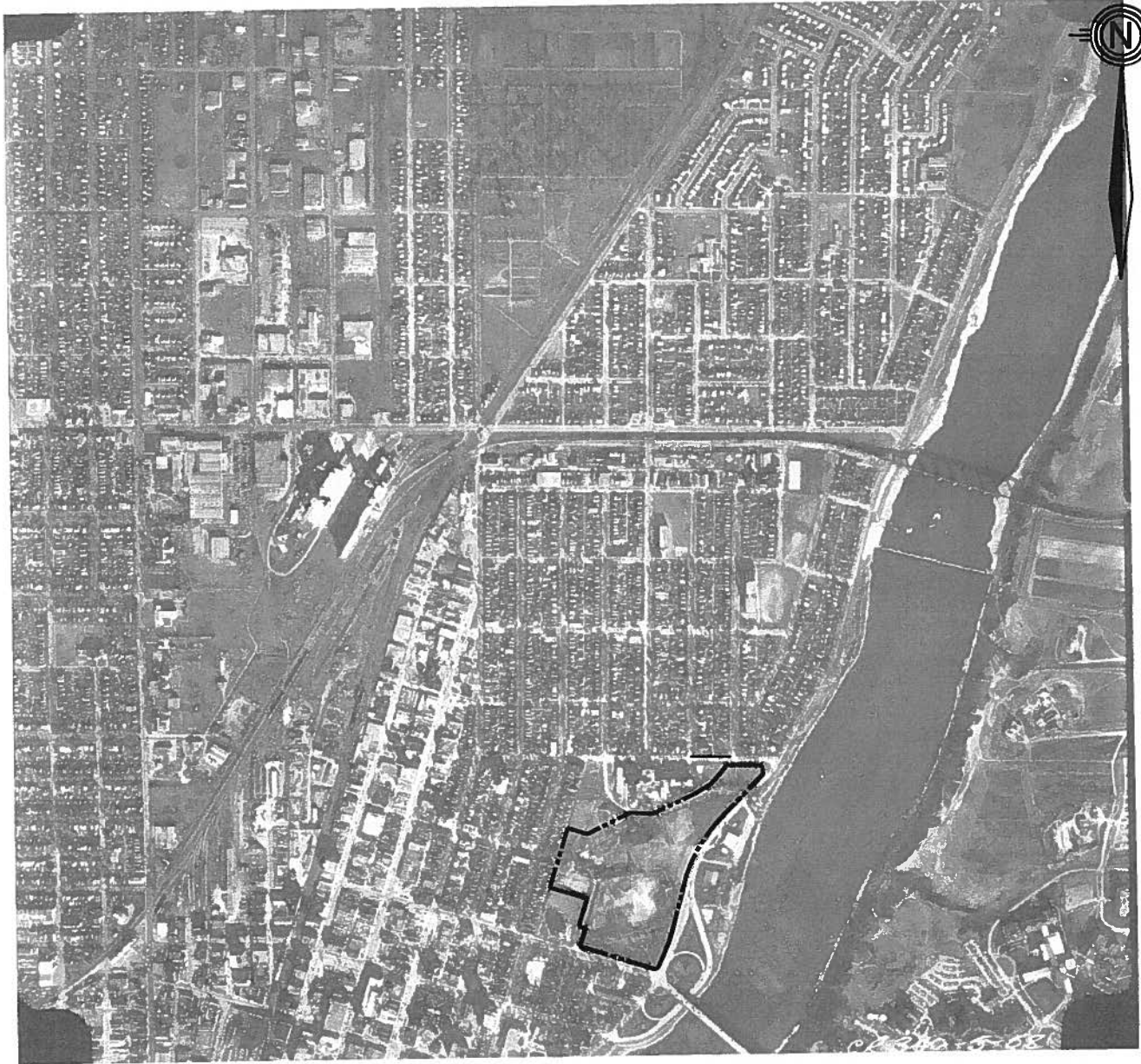
S11-7721-1949

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DRAWING TITLE:

AERIAL PHOTOGRAPH (1967)

PROJECT:

**PHASE I - ENVIRONMENTAL SITE ASSESSMENT
KINSMEN PARK AND AREA MASTER PLAN, SASKATOON, SK**

APPROVED BY:

M. KULEY

DRAWN BY:

G. SOLTYS

DRAWING NUMBER:

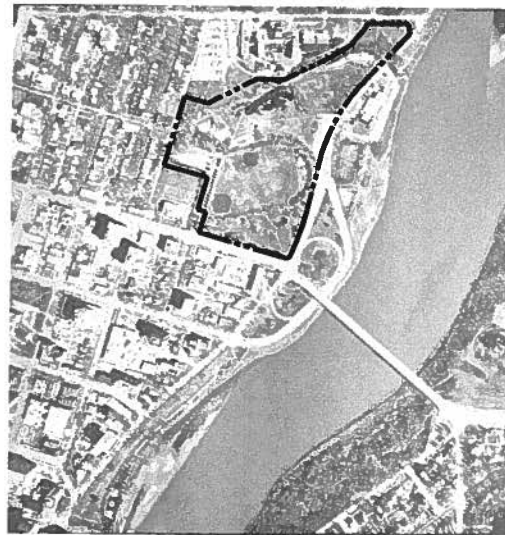
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LEGEND

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DRAWING TITLE:

AERIAL PHOTOGRAPH (1979)

PROJECT:

**PHASE I - ENVIRONMENTAL SITE ASSESSMENT
KINSMEN PARK AND AREA MASTER PLAN, SASKATOON, SK**

APPROVED BY:

M. KULEY

DRAWN BY:

G. SOLTYS

DRAWING NUMBER:

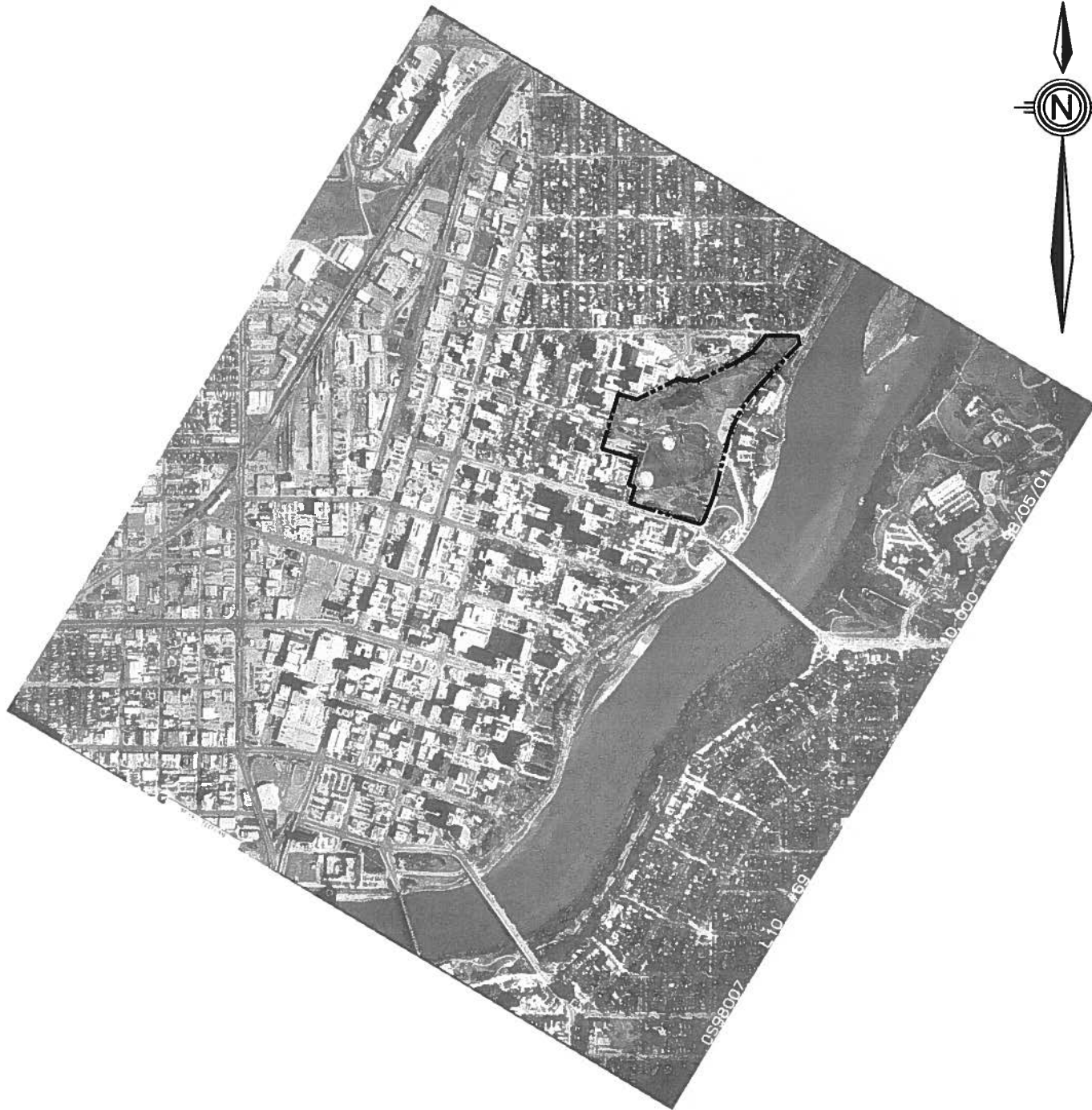
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AERIAL PHOTOGRAPH (1998)

PROJECT:

**PHASE I - ENVIRONMENTAL SITE ASSESSMENT
KINSMEN PARK AND AREA MASTER PLAN, SASKATOON, SK**

APPROVED BY:

M. KULEY

DRAWN BY:

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DRAWING NUMBER:

S11-7721-1998

DATE:

JUNE, 2011

SCALE:

NOT TO SCALE

APPENDIX B
ERIS ECOLOG Database Search



Canada's Primary Environmental Risk Information Service

Project Site: Kinsmen Park and Area
945 & 950 Spadina Crescent East
Saskatoon, SK

Client: Cindy Bettin
P. Machibroda Engineering Ltd.
806 - 48th Street East
Saskatoon, SK S7K3Y4

ERIS Project No: 20110616056

Report Type: Custom Report - .25km Search Radius

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Date: June 27, 2011

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Site Address: 945 & 950 Spadina Crescent East Saskatoon, SK
Report Type: Custom Report, 0.25 km Search Radius

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Report Summary <i>This outlines the number of records from each database that fall on the site, and within various distances from the site.</i>	i
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Appendix: Database Descriptions

Report Summary

Order Number: 20110616056
 Site Name: Kinsmen Park and Area
 Site Address: 945 & 950 Spadina Crescent East Saskatoon, SK
 Report Type: Custom Report, 0.25 km Search Radius

Number of Mappable Records Surrounding the Site

Database	Selected	On-site	Within 0.25	0.25km to 0.25km	Total	
AUWR	Automobile Wrecking & Supplies	Y	0	0	0	
CHEM	Chemical Register	Y	0	0	0	
CONV	Convictions	Y	0	0	0	
DIS	Wastewater Dischargers	Y	0	0	0	
EEM	Environmental Effects Monitoring	Y	0	0	0	
EHS	ERIS Historical Searches	Y	0	14	14	
EIIS	Environmental Issues Information System	Y	0	0	0	
ES	Environmental Spills	Y	0	4	4	
FCON	Federal Convictions	Y	0	0	0	
FCS	Contaminated Sites on Federal Land	Y	0	0	0	
HMS	Hazardous Material Storage	Y	1	11	11	
HORW	Horizontal Wells	Y	0	0	0	
HSSS	Hazardous Substance Storage Sites	Y	0	0	0	
HSST	Hazardous Substance Storage Tanks	Y	0	4	4	
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0	
ILOA	Intensive Livestock Operation Approvals	Y	0	0	0	
MINE	Canadian Mine Locations	Y	0	0	0	
MNR	Mineral Occurrences	Y	0	0	0	
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	1	1	
NDFT	National Defence & Canadian Forces Fuel Storage Tanks	Y	0	0	0	
NDSP	National Defence & Canadian Forces Spills	Y	0	0	0	
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0	
NEES	National Environmental Emergencies System (NEES)	Y	0	1	1	
NPCB	National PCB Inventory	Y	0	1	1	
NPRI	National Pollutant Release Inventory	Y	0	0	0	
OGS	Upstream Oil & Gas Site Spills	Y	0	0	0	
OGW	Oil and Gas Wells	Y	0	0	0	
PAP	Canadian Pulp and Paper	Y	0	0	0	
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0	
PES	Pesticide Register	Y	0	0	0	
RST	Retail Fuel Storage Tanks	Y	0	3	3	
SCT	Scott's Manufacturing Directory	Y	0	12	12	
WDS	Waste Disposal Site Inventory	Y	0	0	0	
WWIS	Water Well Information System	Y	0	1	1	
TOTAL			1	52	0	52

The databases chosen by the client as per the submitted order form are denoted in the 'Selected' column in the above table. Counts have been provided outside the primary buffer area for cursory examination only. These records have not been examined or verified, therefore, they are subject to change.



Pinpointing Your Environmental Risks

12 Concorde Pl, Suite 800 North York, ON M3C 4J2
416-510-5204

Project Property: Kinsmen Park and Area
945 & 950 Spadina Crescent East
Saskatoon, SK

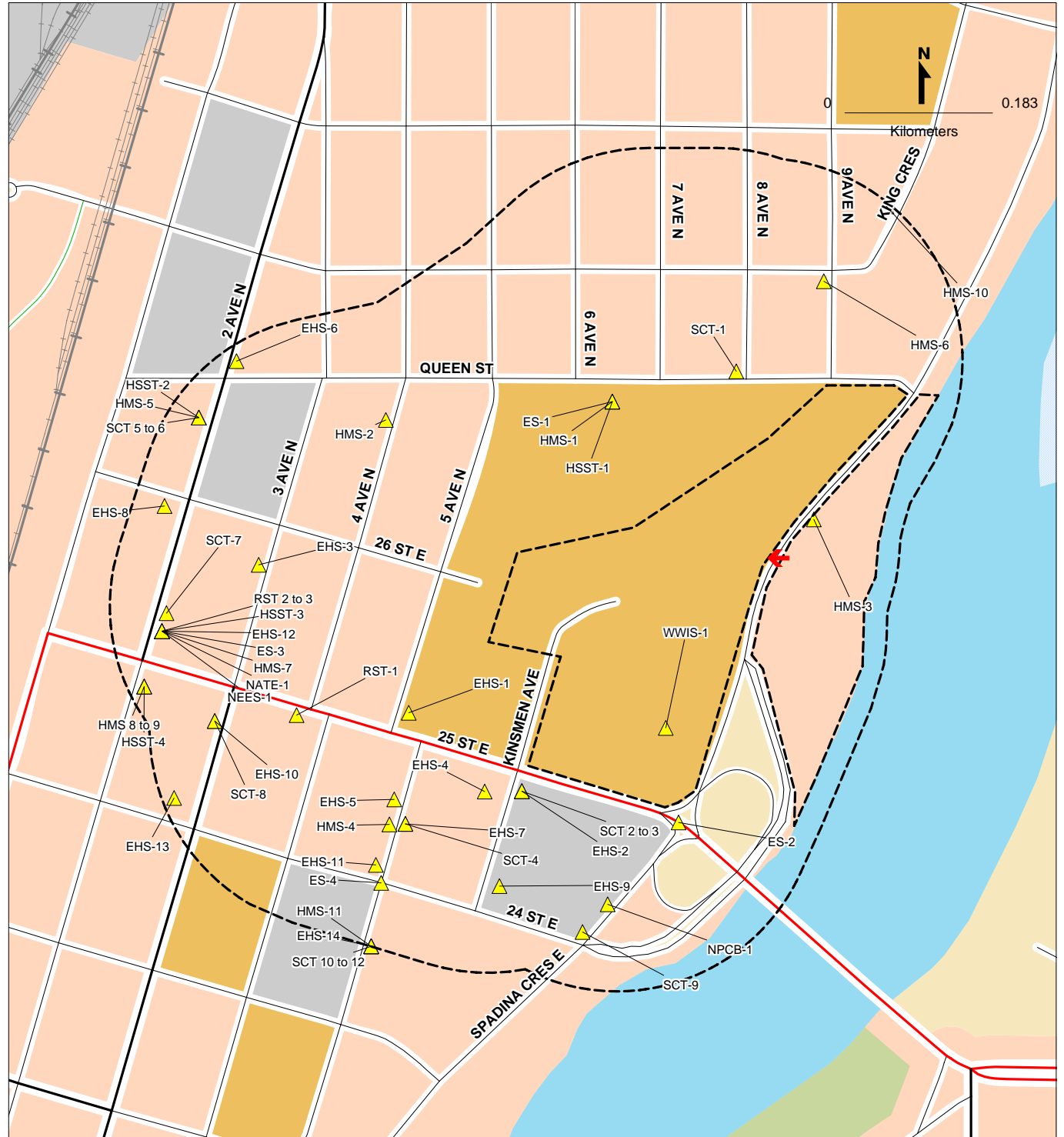
ERIS Project #: 20110616056

Date: JUN-27-2011

LEGEND

	Project Property	Landuse Classifications
	Database Location	Open Area
Points of Interest		Residential
	Chimney	Commercial
	Silo	Resource and Industrial
Pipe & Transmission Lines		Government and Institutional
	Pipeline	Parks and Recreational
	Transmission Line	Waterbody
	Transmission Tower	Recreation
	Transformer Station	Golf Course/Driving Range
Rail		Park/Sports Field
	Railway - Main	Other Recreation Area
	Railway - Sidetrack	Sports/Race Track
	Railway - Abandoned	Cemetery
	Bridge	Campground
	Tunnel	Vegetation
Transportation - Other		Wooded Area
	Embankment	Orchard
	Trail	Vineyard
	Runway	Industrial Resources
Hydrographic Features		Conveyor
	Permanent Waterway	Crane: Moveable
	Intermittent Waterway	Crane: Stationary
	Open Reservoir	Tank
	Dyke/Levee	Rock Cut
	Dam	Auto Wrecker
	Breakwall	Lumber Yard
	Wetland	Pit

SITE DIAGRAM



This diagram is to be used solely for relative street location purposes. It may not accurately portray street or site positions.

Site Report

Order Number: 20110616056
Site Name: Kinsmen Park and Area
Site Address: 945 & 950 Spadina Crescent East Saskatoon, SK
Report Type: Custom Report, 0.25 km Search Radius

FOR COMPLETE INFORMATION, REFER TO DETAIL REPORT

Hazardous Material Storage

Map Key	Company Name	Address	City	Postal Code
HMS-3		950 SPADINA CRES. E., SASKATOON		S7K 3H6

Detail Report

Order Number: 20110616056
Site Name: Kinsmen Park and Area
Site Address: 945 & 950 Spadina Crescent East Saskatoon SK
Report Type: Custom Report, 0.25 km Search Radius

If information is required for sites located beyond the selected address, please contact your ERIS representative.

ERIS Historical Searches

Environmental Spills

Hazardous Material Storage

Hazardous Substance Storage Tanks

National Analysis of Trends in Emergencies System (NATES)

National Environmental Emergencies System (NEES)

National PCB Inventory

Retail Fuel Storage Tanks

Scott's Manufacturing Directory

Water Well Information System

ERIS Historical Searches

Map Key	Company	Address	Order No.	Report Date	Report Type	Search Radius (km)
EHS-1		410 5 Ave N Saskatoon S7K 6Z4	20020326002	3/28/02	Site Report	0.25
			Addit. Info Ordered:			
EHS-2		336 - 6th Avenue North Saskatoon S7K 2S5	20080512023	5/22/2008	Complete Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps And /or Site Plans		
EHS-3		431 3 Avenue North Saskatoon S7K 4Z3	20080402061	4/8/2008	Custom Report	0.25
			Addit. Info Ordered:			
EHS-4		337 6th Ave North Saskatoon	20090310012	3/19/2009	Standard Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps and/or Site Plans		
EHS-5		325-5 Avenue North Saskatoon	20081112004	11/20/2008	Standard Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps and/or Site Plans		
EHS-6		610 2nd Avenue N. Saskatoon S7K 2C7	20041026005	11/3/04	Basic Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps and/or Site Plans		
EHS-7		320-5th Avenue North Saskatoon	20080214006	2/26/2008	Complete Report	0.25
			Addit. Info Ordered:			
EHS-8		493-2nd Avenue North Saskatoon S7K 2C1	20091029027	11/9/2009	Standard Report	0.25
			Addit. Info Ordered:			
EHS-9		324-6th Avenue North Saskatoon S7K 2S5	20080529049	6/9/2008	Complete Report	0.25
			Addit. Info Ordered:			
EHS-10		325-3rd Avenue North Saskatoon S7K 2H9	20100625013	7/8/2010	Standard Report	0.25
			Addit. Info Ordered:			

ERIS Historical Searches

Map Key	Company	Address	Order No.	Report Date	Report Type	Search Radius (km)
EHS-11		247 - 5th Avenue North Saskatoon	20060913001	9/21/2006	Custom Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps And /or Site Plans		
EHS-12		402 - 2nd Avenue North Saskatoon S7K 2C3	20080923021	10/2/2008	Standard Report	0.25
			Addit. Info Ordered:			
EHS-13		220-24 Street East Saskatoon	20090427021	5/6/2009	Standard Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps and/or Site Plans		
EHS-14		204 5th Ave North Saskatoon S7K 2P1	20000911013	9/28/00	Complete Report	0.50
			Addit. Info Ordered:			

Environmental Spills

Map Key	Company	Address	Spill ID	Date of Spill	Quantity	Units	DLS	Material
ES-1		701 QUEEN STREET Saskatoon S7K 0M7	81340	8/9/2005	1	L		OTHER
			Other Material					
ES-2		Spadina and 25th Street Saskatoon	50298	8/19/2005	225	L		GLYCOL
			Other Material		DOWFROST			
ES-3		SASKATOON TEXACO 402 2ND AVE N.; SASKATOON - 25TH SASKATOON	1984-0240	//	unknown	Litres		GASOLINE
			Other Material					
ES-4		5th ave & 24th st. saskatoon; SASKATOON	1996-0272	7/3/1996	450	Litres		OTHER OILS
			Other Material					

Hazardous Material Storage

Map Key	Company	Address	Operation ID	Operation Status	Operation Name	Land Description
HMS-1		701 QUEEN ST., SASKATOON S7K 0M7	7439	Operating	SASKATOON CITY HOSPITAL STORAGE SITE	
HMS-2		537 4TH AVE. N., SASKATOON	8089	Reclaimed	CANDLEWOOD APARTMENT STORAGE SITE	
HMS-3		950 SPADINA CRES. E., SASKATOON S7K 3H6	8200	Decommissioning	MENDEL ART GALLERY STORAGE SITE	
HMS-4		315 5TH AVE. N., SASKATOON	7973	Under Construction	THE TERRACE STORAGE SITE	
HMS-5		519 2ND AVE. N., SASKATOON S7K 2C6	7076	Operating	GREAT WESTERN BREWING COMPANY LTD. STORAGE SITE	
HMS-6		627 9TH AVE. N., SASKATOON S7K 2Y6	8072	Reclaimed	PRIVATE 627 9TH AVE. N. SASKATOON STORAGE SITE	
HMS-7		402 2ND AVE. N., SASKATOON S7K 2C3	11123	Operating	PARKTOWN SERVICE LTD. STORAGE SITE	
HMS-8		380 2ND AVE. N., SASKATOON S7K 2B9	10758	Operating	7-ELEVEN STORE & GAS BAR (SASKATOON) STORAGE SITE	
HMS-9		380 2ND AVE. N., SASKATOON S7K 2B9	9751	Reclaimed	SASKATOON MOTOR PRODUCTS (1973) LTD. (2ND AVENUE) STORAGE SI	
HMS-10		1033 KING CRES., SASKATOON S7K 0N9	8061	Reclaimed	PRIVATE 1033 KING CRES. SASKATOON STORAGE SITE	
HMS-11		204 5TH AVE. N., SASKATOON S7K 2P1	7981	Operating	STAR PHOENIX STORAGE SITE	

Hazardous Substance Storage Tanks

Map Key	Company	Address	Facility Code	Business Description	Type	Capacity (L)	Tank Contents Description	Other Contents
HSST-1	SASKATOON CITY HOSPITAL	701 QUEEN ST. SASKATOON S7K 0M7	OT - 1199	Other	Underground	4500	DIESEL	
					Aboveground	300	DIESEL	
					Aboveground	1400	DIESEL	
					Underground	45000	DIESEL	
					Underground	45000	DIESEL	
					Underground	45000	DIESEL	
HSST-2	GREAT WESTERN BREWING COMPANY LTD.	519 2ND AVE. N. SASKATOON S7K 2C6	MA - 139	Manufacturing Industry	Aboveground	0	CHEMICAL / OTHER	ALCAHOL
					Aboveground	0	CHEMICAL / OTHER	ALCAHOL
HSST-3	PARKTOWN SERVICE LTD.	402 2ND AVE. N. SASKATOON S7K 2C3	SE - 38	Service Station	Underground	50000		
					Underground	50000		
					Underground	25000		
HSST-4	7-ELEVEN STORE & GAS BAR (SASKATOON)	380 2ND AVE. N. SASKATOON S7K 2B9	SE - 1822	Service Station	Underground	50000	GASOLINE (MOTOR)	
					Underground	30000	GASOLINE (MOTOR)	
					Underground	30000	GASOLINE (MOTOR)	

National Environmental Emergencies System (NEES)

Map Key	Company	Address	Incident Date	Contaminant
NEES-1	TEXACO402SECONDAVE	SASKATOON	2/8/84	gasoline
			Amount:	
			Units:	
			Quantity:	
			Cause:	Underground Tank Leak
			Source:	Service Station
			Reason:	Corrosion
			Sector:	Petroleum

National PCB Inventory

Map Key	Company	Address	Company Code	Transaction Date	Inspection Date	Industry	Site Status
NPCB-1	UKRAINIAN MUSEUM OF CANADA	910 SPADINA CRES. E. SASKATOON S7K 3H5	U0235		1/20/1994	OTHER	

<u>Label</u>	<u>No. of Items</u>	<u>Contents</u>	<u>Serial No.</u>	<u>Item/State</u>	<u>Status</u>	<u>PCB Type/Code</u>	<u>Location</u>	<u>Manufacturer</u>
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Retail Fuel Storage Tanks

Map Key	Company	Address	Facility	Description
RST-1	MOHAWK OIL CO LTD, MOHAWK OIL CO LTD	401-333 25TH ST E SASKATOON S7K 0L4	Service Stations-Gasoline, Oil & Natural Gas	
RST-2	PARK TOWN ESSO	402 2ND AVE N SASKATOON S7K 2C3	Service Stations-Gasoline, Oil & Natural Gas	
RST-3	PARK TOWN ESSO	402 2ND AVE N SASKATOON S7K2C3	Service Stations-Gasoline, Oil & Natural Gas	

Scott's Manufacturing Directory

Map Key	Company	Address	Established	Plant Size (ft ²)	Employment	SIC/NAICS Code	Description
SCT-1	People In Their World	716 Queen St Saskatoon S7K 0M9	1/1/2000			511210	Software Publishers
						339930	Doll, Toy and Game Manufacturing
						323119	Other Printing
						541510	Computer Systems Design and Related Services
						323119	Other Printing
SCT-2	Aurum Ceramic Dental Labs	336 6th Ave N Saskatoon S7K 2S5			10	339110	Medical Equipment and Supplies Manufacturing
SCT-3	Aurum Ceramic Dental Laboratories (Sask) Ltd.	336 6th Ave N Saskatoon S7K 2S5			10	339110	Medical Equipment and Supplies Manufacturing
SCT-4	Hallam Dental Aesthetics Inc.	320 5th Ave N Saskatoon S7K 2P5	01-FEB-98			339110	Medical Equipment and Supplies Manufacturing
						339110	Medical Equipment and Supplies Manufacturing
SCT-5	Great Western Brewing Company	519 2nd Ave N Saskatoon S7K 2C6	01-JAN-89	84000		312120	Breweries
						312120	Breweries
SCT-6	Great Western Brewing Company Limited	519 2nd Ave N Saskatoon S7K 2C6	1990	84000	50	312120	Breweries
SCT-7	MID-WEST SPORTSWEAR LTD.	410 2nd Ave N Saskatoon S7K 2C3	1980	12000	50	314990	All Other Textile Product Mills
						315210	Cut and Sew Clothing Contracting
						315229	Other Men's and Boys' Cut and Sew Clothing Manufacturing
						315239	Other Women's and Girls' Cut and Sew Clothing Manufacturing
						315299	All Other Cut and Sew Clothing Manufacturing
323113	Commercial Screen Printing						

Scott's Manufacturing Directory

Map Key	Company	Address	Established	Plant Size (ft ²)	Employment	SIC/NAICS Code	Description
SCT-8	CHROMAGRAPHS INC.	1-325 3rd Ave N Saskatoon S7K 2H9	1985	1800	2	333310	Commercial and Service Industry Machinery Manufacturing
SCT-9	VICOM MEDIA SASKATCHEWAN	902 Spadina Cres E Saskatoon S7K 3H5	1987	0	12	333310 334610	Commercial and Service Industry Machinery Manufacturing Manufacturing and Reproducing Magnetic and Optical Media
SCT-10	The StarPhoenix	204 5th Ave N Saskatoon S7K 2P1	01-JAN-40			511110	Newspaper Publishers
SCT-11	Saskatoon Sun	204 5th Ave N Saskatoon S7K 2P1	1928		330	511110	Newspaper Publishers
SCT-12	THE STARPHOENIX	204 5th Ave N Saskatoon S7K 2P1	1928	0	330	511110	Newspaper Publishers

Water Well Information System

Map Key	Company	Address	Driller Report #	Completed Date	Depth (ft)	Elevation (ft)	Water Use	Well Use	Method Well Developed
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WWIS-1			031984		236	1590	Industrial	Withdrawal	Drilled
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DLS Coordinates: SE1/4-33-36-05-3
Municipality: CORMAN PARK RM OF

<u>Depth (ft)</u>	<u>Colour</u>	<u>Material</u>	<u>Description</u>
20	Yellow	Gravelly Clay	Boulders
180	Blue	Clay	Boulders
210	Blue	Clay	Soft
225	Unknown	Sand	Unknown
236	Unknown	Sandy Clay	Unknown

Appendix: Saskatchewan Database Descriptions

EcoLog Environmental Risk Information Services Ltd can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to EcoLog ERIS at the time of update. **Note:** Databases denoted with “*” indicates that the database will no longer be updated. See the individual database descriptions for more information.

Provincial Source Databases:

Convictions 1995-Apr 2010

CONV

This database summarizes the penalties and convictions handed down by the Saskatchewan courts. Companies and individuals that have been found guilty of environmental offenses under Saskatchewan’s Environmental Protection Legislation are listed in this database. The records in this database are associated with the City the offense took place and are not plotted.

Wastewater Dischargers 2000-May 2010

DIS

This database is maintained by SERM and supplies the locations of the wastewater dischargers in the province. The geographic coordinates have been provided in DLS (Dominion Land Survey) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the LSD or Quarter section only.

Environmental Spills 1977-Mar 2011

ES

This database includes an inventory of known spills that occurred throughout the province and that are reported under regulation R.R.S. c. D-14, Reg. 1. Some of the geographic coordinates have been provided in DLS (Dominion Land Survey) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the LSD or Quarter section only.

Hazardous Material Storage Sites 1980-Mar 2011

HMS

The Saskatchewan Hazardous Materials Storage Program collects this information. With the approval of the Ministry of Environment, hazardous substances and waste dangerous goods can be stored in underground storage tanks, above-ground storage tanks, outdoor storage site and warehouse/indoor storage sites. A hazardous substance/waste is defined as a substance/waste that because of its quantity, concentration or physical, chemical or infectious characteristics, either individually or in combination with other substances, is an existing or potential threat to the environment or human health. This inventory includes information on operator ID, operation name, address, legal land description and operation status.

Horizontal Wells Aug 1987-June 2007

HORW

Saskatchewan Industry and Resources maintains an inventory of all horizontal wells drilled in the province. The database provides detailed information in regard to well name, owner name, status, licence no., initial and final drilling date, well type, horizon name and pool name.

Hazardous Substance Storage Sites 1989-Feb 2006*

HSSS

This is an inventory of hazardous substance storage sites that must be registered under regulation 25/92, S. 3. The database is a catalog of information on the location of outdoor and warehouse sites, housing hazardous products used by companies in the agricultural, chemical, farming, warehousing, trucking, waste recycling, distribution, service stations/repair shops, bulk stations, autobody, mining, and manufacturing industry. Information is provided on the type of product(s) stored, application date, company name, location, and the type of business service operated on site. For current information, please refer to the HMS database.

Hazardous Substance Storage Tanks 1989-Feb 2006*

HSST

This is an inventory of hazardous substance storage tanks that must be registered under regulation 25/92, S. 3. The database is a compilation of information on aboveground and underground storage tanks that hold substances such as gasoline, diesel, chemicals, heating oil, kerosene and alcohol blended products. Information is provided on the contents and capacity of the tank, company name, location, and the type of business service operated on site. For current information, please refer to the HMS database.

Intensive Livestock Operations 1971-May 2009

ILOA

Under the Agricultural Operations Act, certain types of intensive livestock operations are required to obtain plan approval. Approvals are subject to the size of operation and their proximity to a water source. Those requiring plan approval must submit documentation regarding manure storage, utilization of manure nutrients and disposal method for dead animals. Sask. Agriculture, Food and Rural Revitalization maintains a database of approvals issued over the last three decades, for operations that may or may not be currently operational. An ILO plan approval may have been issued to an intensive livestock operation but never been constructed, been approved and not constructed yet, or it may have been constructed and later discontinued. There is no distinction in the database between operational and non-operational sites. Please note that the value "Sum of Animal Units" is a calculation used to compare different types of livestock operations (each type of animal is rated on a scale). Geographic coordinates were provided in DLS (Dominion Land Survey) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the Quarter section only.

Mineral Occurrences 1981-Nov 2006

MNR

Saskatchewan Energy and Mines maintains an inventory of 2890 separate mineral occurrences in the "Saskatchewan Mineral Deposit Index" regarding metallic, industrial mineral and coal deposits. Information within the database pertains to the SMDI No., showing name, location, commodity, deposit type, status, classification and geographical reference data. For additional information regarding geological data and exploration history, please contact the office and quote the SMDI No.

Upstream Oil and Gas Site Spills 1990-Jan 2011

OGS

Saskatchewan Industry and Resource compiles spill information pertaining to crude oil, produced water and spills on upstream oil and gas facilities. Information includes location, date of spill, substance spilled, total amount spilled and source.

Pesticide Register 1998-Apr 2010

PES

Saskatchewan Agriculture and Food maintains a database of all vendors of registered pesticides.

Waste Disposal Site Inventory 2000-May 2010

WDS

This inventory pertains to registered waste disposal sites within the province of Saskatchewan. Specific dates as to when the waste disposal site was activated are not available. The geographic coordinates have been provided in DLS (Dominion Land Survey) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the LSD or Quarter section only.

Water Well Information System 1900-Jun 2010

WWIS

This database was collected from Saskatchewan Water, Water Resource Administration and contains over 100,000 records. The geographic coordinates have been provided in DLS (Dominion Land Survey) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the LSD or Quarter section only.

Federal Government Source Databases:

Diagram Identifier:

Environmental Effects Monitoring 1992-2007*

EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Environmental Issues Inventory System 1992-2001*

EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Federal Convictions 1988-Jun 2007

FCON

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Contaminated Sites on Federal Land June 2000-May 2011

FCS

The Treasury Board of Canada Secretariat maintains an inventory of all known contaminated sites held by various Federal departments and agencies. This inventory does not include properties owned by Crown corporations, but does contain non-federal sites for which the Government of Canada has accepted some or all financial responsibility. All sites have been classified through a system developed by the Canadian Council of Ministers of the Environment. The database provides information on company name, location, site ID #, property use, classification, current status, contaminant type and plan of action for site remediation.

Indian & Northern Affairs Fuel Tanks 1950-Aug 2003

IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of all aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

National Analysis of Trends in Emergencies System (NATES) 1974-1994*

NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

National Defence & Canadian Forces Fuel Tanks Up to May 2001*

NDFT

The Department of National Defence and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

National Defence & Canadian Forces Spills Mar 1999-Aug 2010

NDSP

The Department of National Defence and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

National Defence & Canadian Forces Waste Disposal Sites 2001-April 2007

NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

National Environmental Emergencies System (NEES) 1974-2003

NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for all previous Environment Canada spill datasets. NEES is composed of the historic datasets – or Trends – which dates from approximately 1974 to present. **NEES Trends** is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

National PCB Inventory 1988-2008

NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. All federal out-of-service PCB containing equipment and all PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites.

National Pollutant Release Inventory 1993-2009

NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Parks Canada Fuel Storage Tanks 1920-Jan 2005

PCFT

Canadian Heritage maintains an inventory of all known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Private Source Databases:

Automobile Wrecking & Supplies 2001-Jun 2010

AUWR

This database provides an inventory of all known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Chemical Register 1999-Jun 2010

CHEM

This database includes a listing of locations of facilities within Saskatchewan that either manufacture and/or distribute chemicals.

ERIS Historical Searches 1999-Apr 2011

EHS

EcoLog ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Canadian Mine Locations 1998-2009

MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Oil and Gas Wells 1988-Mar 2011

OGW

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickles' database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Canadian Pulp and Paper 1999, 2002, 2004, 2005, 2009

PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Retail Fuel Storage Tanks 1999-Jun 2010

RST

This database includes an inventory of known fuel outlet locations (including marinas) that have on their property gasoline, waste oil, natural gas and / or gas propane storage tanks.

Scott's Manufacturing Directory 1999-Mar 2011

SCT

Scott's Directories is a database of information on over 4000 manufacturers in Saskatchewan. Even though Scott's listings are voluntary, it is a comprehensive database of Saskatchewan manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

APPENDIX C

Photographs



PHOTOGRAPH NO. S11-7721-01

Panoramic photograph taken proximate the west side of the subject property looking northwest to southwest.



PHOTOGRAPH NO. S11-7721-02

Panoramic photograph taken proximate the east side of the subject property looking south to north.



PHOTOGRAPH NO. S11-7721-03

Panoramic photograph taken proximate the northwest side of the subject property looking east to south.



PHOTOGRAPH NO. S11-7721-04

Panoramic photograph taken proximate the north side of the subject property looking east to southwest.



PHOTOGRAPH NO. S11-7721-05

Panoramic photograph taken proximate the southeast corner of the subject property looking northeast to south.



PHOTOGRAPH NO. S11-7721-06

Panoramic photograph taken proximate the northeast side of the subject property looking south to northwest.



PHOTOGRAPH NO. S11-7721-07 Creek, facing northeast.



PHOTOGRAPH NO. S11-7721-08 Creek, facing southwest.



PHOTOGRAPH NO. S11-7721-09

Paddling pool.



PHOTOGRAPH NO. S11-7721-10

Playground.



PHOTOGRAPH NO. S11-7721-11 Small building.



PHOTOGRAPH NO. S11-7721-12 Electric powered train.



PHOTOGRAPH NO. S11-7721-13 Merry-go-round.



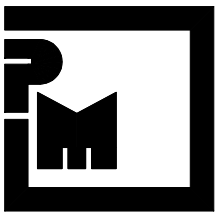
PHOTOGRAPH NO. S11-7721-14 Concession.



PHOTOGRAPH NO. S11-7721-15 Ball diamond.

A11 PH.1 ESA: MENDEL SITE

Appendix 11 includes a Phase 1 Environmental Site Assessment for the Mendel Art Gallery and Conservatory and the area generally bounded by Spadina Crescent, the South Saskatchewan River, Queen St, and University Bridge.



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**PHASE I ENVIRONMENTAL SITE ASSESSMENT
MENDEL ART GALLERY AND CONSERVATORY
950 SPADINA CRESCENT EAST
PMEL FILE NO. S11-7721A
SEPTEMBER 27, 2011**

*PARCEL D, PLAN 61S14744,
AND PLAN 68S04040
SASKATOON, SASKATCHEWAN*

PREPARED FOR:

**CITY OF SASKATOON
ENVIRONMENTAL SERVICES BRANCH
3RD FLOOR T & T BUILDING
SUITE 330-350 3RD AVENUE NORTH
SASKATOON, SASKATCHEWAN
S7K 6G7**

ATTENTION: STEPHANIE LANGEVIN, A.Sc.T., ENGINEER I

PRIVILEGED AND CONFIDENTIAL

EXECUTIVE SUMMARY

A Phase I Environmental Site Assessment (ESA) was conducted for the property legally described as:

- *Parcel D, Plan 61S14744, and Plan 68S04040, Saskatoon, Saskatchewan*

The subject property is located at the northeast intersection of 25th Street East and Spadina Crescent, adjacent to the west bank of the South Saskatchewan River in the City Park Subdivision of Saskatoon, Saskatchewan. The civic address for the subject site is 950 Spadina Crescent East.

In accordance with CSA Z768-01 (R2006), the Phase I ESA consisted of a review of available background and historical information; a visual site review; and a report of our findings. The purpose of the Phase I ESA was to determine the potential existence of contaminants and/or environmental concerns on the subject property.

SITE DESCRIPTION/HISTORY

Development at the site currently includes: the Mendel Art Gallery (subject building); a seasonal restroom facility; and a seasonal tent housing the Shakespeare on the Saskatchewan Festival. Tennis and/or lawn bowling courts were formerly located at the site from the early 1900's until construction of the Mendel Art Gallery (subject building) in 1963. A snow dump, last used in 1997, was formerly located at the present location of the Shakespeare on the Saskatchewan site. An approximately 371.6 m² (4,000 ft²) building addition was added to the subject building in 1974. The subject building consists of a single-storey masonry and brick building (with basement) constructed with a mezzanine and built-up and pitched roofs. A glass walled conservatory is located in the south portion of the subject building. The area outside of the building footprint includes asphalt-paved parking; landscaped, paved trails and naturally vegetated areas.

ENVIRONMENTAL HAZARD POTENTIAL

Based on the information reviewed, and the observations made during the visual site review, the subject property is considered to have a low environmental hazard potential and no further investigation (i.e., Phase II ESA) is recommended at this time. However, the following environmental management concerns have been identified for the subject property:

- A 9,100 L (2,000 gallon) heating oil UST was removed from the site in 1995. Following remediation a closure letter was issued by the Ministry of Environment (formerly Saskatchewan Environment and Resource Management) indicating that they were satisfied with the work performed. Since the remediation work was performed in 1995 it is possible that residual hydrocarbons (if any) at concentrations exceeding current allowable concentrations exist in this area of the site. In consideration of the above it is recommended that if excavation work is considered in this area, testing be conducted prior to any re-use of the excavated soil.
- Salt impacted soil was identified along the river bank proximate the eastern boundary of the site. The salt within the impacted soil is reportedly moving downward through the soil profile and a long term remediation system (phytoremediation) has been implemented. In consideration of the above, negative effects (i.e., impaired plant growth) associated with the salt are expected to decrease over time.
- No air quality problems reportedly exist in the subject building. However, elevated moisture/humidity was noted in the conservatory within the south side of the building. Excessive and constant moisture can lead to the propagation of moulds which can lead to air quality concerns. As such it is recommended that any source of excess moisture and/or water infiltration be repaired (if not done so already) and that any moulds present (if any) be remediated in accordance with applicable guidelines and/or regulations.

- Buildings, constructed prior to 1985, are likely to have asbestos containing materials (ACMs). ACMs that can be crumbled, powdered or pulverized by hand pressure (i.e., friable), were commonly used in spray applied fireproofing until 1973, and in decorative or finishing plasters (i.e., drywall mud) and mechanical system insulation until the early 1980s. Manufactured building products (i.e., Non-Friable) including: vinyl floor tile; sheet flooring; ceiling tiles; pipe gaskets; roofing materials; siding and numerous other products typically contained asbestos until the mid 1980s. A small number of non-friable ACMs are still used in building products. Since the building was reportedly constructed in 1963, there is a potential for both friable and non-friable ACMs to be present. Reported sources of ACMs still remain within the subject building and include: blown-on asbestos insulation, stippled ceiling cover, floor tile and wall covering (reportedly enclosed). In addition, concrete block interior walls of the subject building reportedly contain Zonolite. Although Zonolite has the potential to contain asbestos, exposure to the Zonolite is considered unlikely unless demolition/renovations occur. Sanding, grinding, drilling or similar contact with ACMs have the potential for generating airborne asbestos fibres during future occupancy, renovations, alterations and/or building demolition. All handling of ACMs must be performed in accordance with applicable regulations and/or guidelines.
- Based on the age of the building) at the site (constructed in 1963) and that Polychlorinated Biphenyls (PCBs) were used in electrical and mechanical equipment prior to 1980, it is possible that PCBs are present at the site. While the use of PCB-containing electrical (i.e. fluorescent light ballasts, transformers, etc.) and mechanical equipment does not represent an environmental concern (provided they are not leaking) it is recommended that all electrical and mechanical equipment be checked for potential PCB-containing dielectric fluid prior to disposal. Because of the potential for generating furans and dioxins in the event of a fire, early removal and disposal of all PCB-containing equipment (if any) is preferred. All PCB containing equipment (if any) should be disposed of in accordance with provincial and/or federal regulations and guidelines.

- The Federal Government implemented the Ozone-Depleting Substances (ODSs) Regulations in 1994 to amend controls, and, on the manufacture and use of chlorofluorocarbons (CFCs), halons, carbon tetrachloride and methyl chloroform. Since the subject building was constructed prior to 1994, it is possible that ODS containing equipment (i.e., refrigerators, etc.) are present in the subject building. It is recommended that all handling of ODSs be performed by certified technicians in accordance with applicable guidelines and/or regulations.
- It is recommended that all mercury containing equipment (i.e., thermostats etc.) be handled in accordance with applicable guidelines and/or regulations.
- The subject building should be monitored for radon gas.

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Appendix B Land Titles

Appendix C Eris ECOLOG Database Search

Appendix D Closure Letter and Petrocare Closure Report Form

Appendix E Photographs

1.0 INTRODUCTION

A Phase I Environmental Site Assessment (ESA) was conducted for the property legally described as:

- *Parcel D, Plan 61S14744, and Plan 68S04040, Saskatoon, Saskatchewan*

The subject property is located at the northeast intersection of 25th Street East and Spadina Crescent, adjacent to the west bank of the South Saskatchewan River in the City Park Subdivision of Saskatoon, Saskatchewan. The civic address for the subject site is 950 Spadina Crescent East.

Written authorization (via email) to complete this investigation was provided by Stephanie Langevin, A.Sc.T, Engineer I, on behalf of the City of Saskatoon on May 10, 2011. In accordance with CSA Z768-01 (R2006), the Phase I ESA consisted of a review of available background and historical information; a visual site review; and a report of our findings. The purpose of the Phase I ESA was to determine the potential existence of contaminants and/or environmental concerns on the subject property.

2.0 REVIEW OF BACKGROUND AND HISTORICAL INFORMATION

Historical information available for the subject site was reviewed to identify potential environmental concerns, which may not be evident, based on current site conditions. Available historical information was reviewed for items of environmental significance including: former industrial use of the site; historical storage tank locations; and historical use of neighbouring properties. Information sources available and reviewed for the subject site included: aerial (stereo pair) photographs; Land Titles records; zoning records, fire department records; and an environmental file search performed by Saskatchewan Environment. In addition to the above, a review of general background information for the site and area was conducted. Items collected and reviewed included topographic and geologic maps and hydrogeological studies.

2.1 Site Description

The location of the subject property is shown on the Key Plan and Surrounding Land Use Drawing, Drawing No. S11-7721A-1, while details of the subject property are shown on the Site Plan, Drawing No. S11-7721A-2. Development at the site currently includes: the Mendel Art Gallery (subject building); a seasonal restroom facility; and a seasonal tent housing the Shakespeare on the Saskatchewan Festival. Tennis and/or lawn bowling courts were formerly located at the site from the early 1900's until construction of the Mendel Art Gallery (subject building) in 1963. A snow dump, last used in 1997, was formerly located at the present location of the Shakespeare on the Saskatchewan site. An approximately 372 m² (4,000 ft²) building addition was added to the subject building in 1974. The subject building consists of a single-storey masonry and brick building (with basement) constructed with a mezzanine and built-up and pitched roofs. A glass walled conservatory is located in the south portion of the subject building. The area outside of the building footprint includes: asphalt-paved parking; landscaped areas; paved trails; and naturally vegetated (treed and grassed) areas.

2.2 Background Information

2.2.1 Physiography and Regional Geology

The subject property lies in the physiographic region known as the Saskatchewan Rivers Plain (Acton et. al., 1960). The Saskatchewan Rivers Plain is characterized as gently undulating to rolling glacial lacustrine-alluvial plains (glacial lake plains), aeolian plains (dunes) and till plains. The surficial soil deposits consist of variable textured lacustrine and alluvial sands, silts and clays, aeolian sands, glacial till and local bedrock exposures in the South Saskatchewan River.

According to Christiansen (1973), the regional surficial soil conditions in this area consist of approximately 60 m of glacial till and stratified drift (sand, silt and clay). The above deposits are underlain by marine silt and clay shale of the Bearpaw Formation (Christiansen, 1973).

The land surface elevation at the site was approximately 475 m (Geodetic) and regionally sloped gradually downwards to the South Saskatchewan River (approximately 469 m Geodetic), located along the east property line of the subject property.

2.2.2 Hydrogeology

An examination of hydrogeological data (Christiansen, 1973) for this region revealed the following observations:

1. The primary source of water in this region is drift aquifers above or between glacial till strata and the Empress Group (Tyner Valley Aquifer) between the base of the glacial till and the surface of the bedrock.
2. The study site is located in a region of groundwater recharge.
3. The South Saskatchewan River is a discharge receptor for many of the aquifer systems in the Saskatoon area. The inferred regional groundwater flow would be in an easterly direction towards the South Saskatchewan River.
4. The closest major surface water body to the site is the South Saskatchewan River, located proximate the east property line of the site.

2.2.3 Water Supply

The water supply for the City of Saskatoon is obtained via a piped distribution system with a river intake on the South Saskatchewan River.

2.3 Air Photograph Review

Historical aerial photographs dated 1949, 1967, 1979 and 1998 were obtained for the site and examined to identify site specific land-use which may have resulted in environmental concerns on and/or adjacent to the site. A summary of observations made has been presented below. A selection of aerial photographs has been included in Appendix A.

1949: Tennis courts and a field (lawn bowling) are present next to the riverbank proximate the southern portion of the subject property. Two small buildings, likely club houses/change rooms, are located adjacent to the tennis courts and lawn bowling fields. A racetrack is visible across Spadina Crescent, to the west (Kinsmen Park).

1967: The Spadina interchange is now visible to the south of the site in the area where the riverside tennis courts were previously located. The lawn bowling field and associated clubhouse are still visible, to the north of the interchange. The Mendel Art Gallery is now present on the subject property. The racetrack has been removed from Kinsmen Park.

1979: The subject property and surrounding land use are relatively unchanged from 1967. Soil fill piles appear (end dumps) to be present to the east of the lawn bowling field/clubhouse (proximate existing Shakespeare on the Saskatchewan site).

1998: The subject property and surrounding land use are relatively unchanged from the present level of development. The lawn bowling facility is no longer present and sidewalks and a boat dock/promenade are now visible along the river, just to the southeast of the Mendel Art Gallery. Parking lots are now located to the south of the Mendel Art Gallery, proximate the former lawn bowling facility.

2.4 Street Directories

A review of the City of Saskatoon Henderson Directories for the subject property and surrounding properties revealed that the site was listed as a lawn bowling and/or tennis club from the early 1900's until the mid 1960's. The subject property was listed as Saskatoon Art Gallery; followed by Mendel Art Gallery in the City of Saskatoon Henderson Directories dated 1964 to 2000. The majority of the surrounding properties were listed as residential.

2.5 Zoning

The subject property is zoned M3 (General Institutional Zoning District) as defined by the City of Saskatoon Zoning Bylaw No. 7800, dated December, 1998. The intent of the M3 zoning is to facilitate a wide range of institutional and community activities, as well as medium and high density residential uses, within suburban centres and other strategically located areas. Typical uses include one-unit and multiple-unit dwellings, dwelling groups, offices and office buildings, places of worship, private schools, medical clinics, public parks and playgrounds, radio and television studios, financial institutions, research laboratories, private clubs and banquet halls.

2.6 Land Titles Search

A search of historic land titles was conducted for the subject property. A table summarizing the chain-of-title for the subject property has been included in Appendix B. No potential environmental concerns were apparent on the titles searched. Previous owners of the subject property included: The Temperance Colonization Society; a merchant; a gentleman; stock brokers and the City of Saskatoon.

2.7 Building Permit Records

A building permit search and visual review of available building drawings were performed at the City of Saskatoon Building Department. The building permit search revealed the following:

Permit No. 2104/63: Issued November 20, 1963 for construction of a public art centre building.

Permit No. 1885/70: Issued September 30, 1970 for roof alterations.

Permit No. 209/72: Issued in 1972 for building alterations.

Permit No. 1798/75: Issued July 10, 1975 for a 371.6 square metre (4000 ft²) addition to the subject building.

Permit No. 1802/82: Issued August 19, 1982 for renovations.

Permit No. 1802/82: Issued August 19, 1982 for renovations.

Permit No. 1649/94: Issued October 28, 1994 for roof alterations/replacement.

Permit No. 1343/95: Issued August 11, 1995 for exterior alterations.

Permit No. 0675/01: Issued March 11, 2001 interior alterations.

Building materials listed on the building permits and/or drawing for the subject building included the following: concrete; fibreglass; rigid insulation; fibreboard; steel; plywood; rubber; sheet battleship linoleum; asbestos insulation; polyethylene; acoustic ceiling tile; plaster; resilient floor tile; caulking; brick; ceramic tile; cork; painted surfaces; Zonolite; drywall; firestop board; carpet and vinyl tile.

2.8 City of Saskatoon Fire and Protective Services - File Search

A file search conducted by the City of Saskatoon Fire and Protective Services for the subject property, revealed that no records of spills, leaks, storage of dangerous goods or fire orders were on file for the subject property.

2.9 Fire Insurance Maps

The subject property was not located on City of Saskatoon Fire Insurance Maps dated 1911, 1923 (revised 1950) and last revised in 1963. Properties south of 25th Street were reportedly occupied by residential dwellings, a church and/or a hotel.

2.10 Saskatchewan Ministry of Environment - Environmental File Search

A file search of Saskatchewan Ministry of Environment files for the subject property revealed the following:

1. The subject property is registered pursuant to the Hazardous Substances and Waste Dangerous Goods Regulations (i.e., code OT 1908) for a former heating oil tank (UST). The heating oil tank has since been removed from the subject property and the area remediated.
2. There were no reported spills pursuant to Environmental Spill Control Regulations for the subject site.

2.11 Interviews

A solicited interview conducted on June 9, 2011 with Mr. Jim Loucks, facilities manager for the Mendel Art Gallery and Conservatory, revealed the following:

1. Mr. Loucks has been associated with the subject building for the past 6 years.
2. The subject building had been designed to control humidity in the rooms containing art work.
3. The subject building is primarily heated with forced air. Radiant heat is located along the perimeter of the subject building.
4. Dehumidifiers and boilers/steam are used to control the humidity of the subject building.
5. An asbestos survey had been formerly conducted for the subject building. Results of the survey indicated that friable and non-friable Asbestos Containing Materials (ACMs) were present in the building.
6. The majority of the friable (easily crumbled by hand) asbestos has since been removed.
7. There are no known rodent and/or bird problems at the subject property.
8. The majority of the painted surfaces within the subject building are in good repair.
9. Mould may be present within the conservatory of the subject building due to constant exposure to high humidity and moisture.

-
10. Small quantities of chemicals (paints, cleaning supplies, etc.) are stored in the subject building. No known spills have occurred at the subject property.
 11. Roof top air-conditioning units are present at the subject site.
 12. All work performed on the Heating, Ventilating and Air Conditioning (HVAC) equipment is done by qualified contractors.
 13. The roof of the subject building had been renovated several years ago.
 14. The subject buildings elevator is cable driven.

2.12 ERIS ECOLOG Database Report

An ERIS ECOLOG database report was completed for the subject property. The database report provides the search results of various Federal, Provincial and Private source databases for a 250 m radius surrounding the subject property. Results of the database search revealed that four properties were registered with the hazardous substance storage tank database, and eleven properties were listed as hazardous material storage sites. Based on the separation distance, the property use and expected volume of hazardous materials, releases (if any), from these facilities are considered to represent a low likelihood of impact towards the subject property.

The ERIS ECOLOG database report for the subject property has been provided in Appendix C.

2.13 Previous Investigations

2.13.1 Geotechnical Investigation (PMEL Report No. S04-5114)

A geotechnical investigation and slope stability study was performed at the site in 2005 (refer to PMEL Report N. S04-5114, dated August 30, 2005) for a proposed expansion of the Mendel Art Gallery. Although the scope of the investigation did not include environmental considerations, no potential environmental concerns such as adverse odours and/or staining were apparent in the soil samples recovered during drilling.

2.13.2 Phase I ESA (PMEL Report No. S04-5114.1)

A Phase I ESA was performed for the Mendel Art Gallery (Parcel D, Plan 61S14744) on June 15, 2004. Results of the Phase I ESA revealed that an approximately 9,100 L (2,000 gallon) heating oil Underground Storage Tank (UST) was removed from the site in 1995. The report also revealed that a closure letter was issued by the Ministry of Environment (formerly known as Saskatchewan Environment and Resource Management) that they considered the site remediated. A copy of the closure letter is presented in Appendix D. However, since detailed records were not available outlining the work performed, and the work performed did not appear to adhere to current standards, the Phase I ESA recommended that further investigation (i.e., Phase II ESA) be conducted to confirm that the site had been remediated. The report also identified a number of environmental management concerns for the property.

2.13.3 Environmental Screening Report (PMEL Report No. S08-5114.2)

An Environmental Screening Report (PMEL Report No. S08-5114.2, dated July 21, 2008) was prepared for the proposed Mendel Art Gallery addition in 2008. Results of the screening report revealed that the proposed addition would not cause any significant adverse environmental effects if the mitigation measures identified in the report were implemented.

2.13.4 Soil Sampling (Prairie Plant Systems Inc.)

Results of soil sampling performed by Prairie Plant Systems Inc. (PPSI), along the riverbank to the east of the Mendel Art Gallery, were reported in a letter report dated May 3, 2010. The purpose of the soil sampling was to determine salinity levels in the soil and assess the general health of the soil. Results of the investigation indicated that the surficial soils at the site have been negatively impacted by the build up of salts associated with the past activities (i.e., snow dump) conducted at the site.

2.13.5 Decommissioning Closure Report Form – Petrocare Construction Services Inc.

A copy of the Petrocare Construction Inc. (Petrocare) Decommissioning Closure Report Form is presented in Appendix D. Review of the report indicated that residual hydrocarbons (i.e., Total Extractable Hydrocarbons) were present in a soil sample analyzed from the site. The report also indicated that no soil was removed from the site. Based on the information presented in the Petrocare report, Saskatchewan Environment and Resource Management (currently the Saskatchewan Ministry of Environment) issued a letter on January 2, 1996 indicating they were satisfied with the remediation work and considered the site remediated to support commercial/industrial development. A copy of the Ministry's letter has been included in Appendix D.

3.0 VISUAL SITE REVIEW

PMEL personnel conducted a visual site review of the subject property on June 9, 2010. Select photographs taken of the subject property have been included in Appendix E. Brief summaries of the observations made during the review are presented in the following sub-sections.

3.1 Property

1. The subject property is currently occupied by a single-storey (with basement) concrete, brick and masonry building with a mezzanine and built-up/pitched roofs. A glass-walled conservatory was located in the south portion of the subject building.
2. Areas outside the buildings footprint include: asphalt paved parking areas, landscaped areas, asphalt paved walking paths and naturally vegetated areas.
3. Several stormwater catch basins are located throughout the subject property. A drainage channel and culvert are located north of the subject building.
4. A pole mounted electrical transformer and overhead utility lines were located on the north section of the subject property. No staining and/or odours were noted adjacent to the electrical and/or cable boxes.
5. The Shakespeare on the Saskatchewan site is located on the southeast portion of the subject property. Several temporary trailers and tents were located in this area.

3.2 Surrounding Land Use

Surrounding land use in the vicinity of the site was primarily residential and is shown on the Key Plan and Surrounding Land Use, Drawing No. S11-7721A-1. Surrounding land use to the site includes:

North: Spadina Crescent East, across which is located residential properties.

South: Spadina Crescent East, across which is located the University Bridge.

East: Meewasin Trail and the South Saskatchewan River.

West: Spadina Crescent East, across which is located Kinsmen Park.

3.3 Waste Management

3.3.1 Liquid Waste

Sanitary sewage and wash water generated on the subject property are discharged into the City of Saskatoon sanitary sewer system.

3.3.2 Solid Waste

All solid waste generated at the site is reportedly taken offsite for disposal.

3.3.3 Hazardous Substances and Waste Dangerous Goods

There were no reported concerns with the small quantities of hazardous substances (i.e., paints, cleaning supplies, water softeners, etc.) noted at the subject site during the visual site review. All Hazardous Substances and Waste Dangerous Goods should be stored and/or handled in accordance with the "Hazardous Substances and Waste Dangerous Goods Regulations".

3.4 Storage Tanks

No Aboveground Storage Tanks (ASTs) or visible evidence (i.e., pump islands, vent pipes etc.) of (on site) Underground Storage Tanks (UST's) were apparent on the subject property at the time of the visual site review.

A 9,100 L (2,000 gallon) heating oil UST was formerly located along the east side of the subject building. The UST was reportedly removed in 1995 and a closure letter (refer to Appendix D) was issued by the Ministry indicating that they were satisfied at the time with the work performed.

3.5 Surface Staining/Stressed Vegetation and Soil Fill

Stressed vegetation, likely associated with salt from the former snow dump, was reportedly present along the west bank of the river.

3.6 Polychlorinated Biphenyls (PCB)

The Federal Chlorobiphenyls Regulation, SQR/91-152, prohibited the use of Polychlorinated Biphenyls (PCBs) in electrical equipment installed after July 1, 1980. The most recent Regulation (i.e., SOR/2008-273) aims to eliminate the use of both low level (i.e., 50 to 500 mg/kg) and high level PCBs (i.e., greater than 500 mg/kg) on or within 100 metres of a sensitive site (e.g., drinking water treatment facility, school, hospital, etc.) by December 31, 2009. Light ballasts, pole-top transformers and associated pole mounted electrical equipment with low level PCBs (i.e., 50 to 500 mg/kg) may be used until December 31, 2025 at non-sensitive sites. Since the subject building was reportedly constructed in 1963, it is possible that electrical equipment at the subject property contains PCBs. The majority of PCB containing fluorescent light ballasts within the subject building were reportedly replaced.

3.7 Radon Potential

In June 2007 Health Canada revised the guideline for exposure to radon in indoor air from 800 Bq/m³ to 200 Bq/m³. Radon is a naturally occurring radioactive gas originating from degradation of naturally occurring uranium in the soil. Radon gas can enter buildings by seeping through cracks in the foundation walls and floors.

3.8 Building/Building Materials

3.8.1 Lead Paint

Canadian regulations (Hazardous Products Act) limited the amount of lead and mercury in paint to 0.06 and 0.001, respectively, percent by weight in 2005. Since the building on the subject property were constructed prior to 2005 it is possible that paint concentrations exceeding the allowable lead and mercury criteria exist within the subject buildings.

3.8.2 Urea Formaldehyde Foam Insulation (UFFI)

The majority of Urea Formaldehyde Foam Insulation (UFFI) was installed in new and existing construction in Canada between 1975 and 1978 as part of the Canadian Home Insulation Program. UFFI was banned in Canada in December 1980 due to health concerns associated with off-gassing of formaldehyde. Since the subject building was constructed in 1963, it is possible that UFFI would be present.

3.8.3 Asbestos Containing Materials (ACMs)

Buildings, constructed prior to 1985, are likely to have Asbestos Containing Materials (ACMs). ACMs that can be crumbled, powdered or pulverized by hand pressure (i.e., friable), were commonly used in spray applied fireproofing until 1973, and in decorative or finishing plasters (i.e., drywall mud) and mechanical system insulation until the early 1980s. Manufactured building products (i.e., Non-Friable) including: vinyl floor tile; sheet flooring; ceiling tiles; pipe gaskets; roofing materials; siding and numerous other products typically contained asbestos until the mid 1980s. A small number of non-friable ACMs are still used in building products.

Based on the age of the building (reportedly constructed in 1963) there is a potential for both friable and non-friable ACMs to be present in the subject buildings. Potential ACMs identified in the subject buildings included: acoustic ceiling tiles and drywall joint compound. The potential for ACM to exist in the buildings could result in management issues and future costs, particularly if renovation or demolition activities are conducted.

The majority of the friable (easily crumbled by hand) asbestos had reportedly been removed. However, reported sources of ACMs still remain within the subject building and include: blown-on asbestos insulation, stippled ceiling cover, floor tile and wall covering (reportedly enclosed). In addition, concrete block interior walls of the subject building reportedly contain Zonolite.

3.9 Air Emissions

Other than vents and heating fixtures, no obvious sources of emissions were present. No adverse odours were recorded during the visual site review.

3.10 Heating, Ventilation and Air-Conditioning (HVAC)

The majority of the subject building heated/cooled using a forced air system. A radiant heating system reportedly is located along the perimeter of the subject building. Two roof top air-conditioning units are also located at the subject site.

3.11 Ozone-Depleting Substances (ODSs)

The Federal Government implemented the Ozone-Depleting Substances (ODSs) Regulations in 1994 to amend controls, on the manufacture and use of Chlorofluorocarbons (CFCs), halons, carbon tetrachloride and methyl chloroform. Since the subject building was constructed in 1963, it is possible that ODS containing equipment (i.e., refrigerators, air conditioning units, etc.) are present in the subject building.

3.12 Indoor Air Quality Moulds

Excessive moisture/humidity was noted in the conservatory, located along the south side of the subject building. Water/moisture damage was also noted on exterior duct insulation within the subject building during the visual site review. No known mould problems reportedly exist within the subject building. However no mould surveys were conducted at the subject site and/or were available during the visual site review for review.

3.13 Noise and Vibration

Apart from vehicle traffic, no obvious sources of adverse noise and/or vibration were present at the time of the visual site review.

3.14 Electromagnetic Fields (EMFs)

No high-tension transmission lines with the potential to generate significant Electromagnetic Fields (EMFs) were located on the subject property.

3.15 Radioactive Materials/Radiation Sources

No radioactive sources requiring special licensing were apparent during the visual site review.

3.16 Neighbouring Properties

No potential environmental concerns were identified with the neighbouring properties to the site. It should be recognized that the precise nature of the activities carried out on the surrounding sites and their potential impacts to the subject site are outside the scope of this report. Potential contamination associated with surrounding land use cannot be confirmed without further investigation including detailed inspections of the surrounding properties.

3.17 Mercury

Based on the age of the subject buildings, it is possible that equipment containing small amounts of mercury (i.e., thermostats) may be present at the site.

4.0 ENVIRONMENTAL HAZARD POTENTIAL

Based on the information reviewed, and the observations made during the visual site review, the subject property is considered to have a low environmental hazard potential and no further investigation (i.e., Phase II ESA) is recommended at this time. However, the following environmental management concerns have been identified for the subject property:

- A 9,100 L (2,000 gallon) heating oil UST was removed from the site in 1995. Following remediation a closure letter was issued by the Ministry of Environment (formerly Saskatchewan Environment and Resource Management) indicating that they were satisfied with the work performed. Since the remediation work was performed in 1995 it is possible that residual hydrocarbons (if any) at concentrations exceeding current allowable concentrations exist in this area of the site. In consideration of the above it is recommended that if excavation work is considered in this area, testing be conducted prior to any re-use of the excavated soil.
- Salt impacted soil was identified along the river bank proximate the eastern boundary of the site. The salt within the impacted soil is reportedly moving downward through the soil profile and a long term remediation system (phytoremediation) has been implemented. In consideration of the above, negative effects (i.e., impaired plant growth) associated with the salt are expected to decrease over time.
- No air quality problems reportedly exist in the subject building. However, elevated moisture/humidity was noted in the conservatory within the south side of the building. Excessive and constant moisture can lead to the propagation of moulds which can lead to air quality concerns. As such it is recommended that any source of excess moisture and/or water infiltration be repaired (if not done so already) and that any moulds present (if any) be remediated in accordance with applicable guidelines and/or regulations.

-
- Buildings, constructed prior to 1985, are likely to have asbestos containing materials (ACMs). ACMs that can be crumbled, powdered or pulverized by hand pressure (i.e., friable), were commonly used in spray applied fireproofing until 1973, and in decorative or finishing plasters (i.e., drywall mud) and mechanical system insulation until the early 1980s. Manufactured building products (i.e., Non-Friable) including: vinyl floor tile; sheet flooring; ceiling tiles; pipe gaskets; roofing materials; siding and numerous other products typically contained asbestos until the mid 1980s. A small number of non-friable ACMs are still used in building products. Since the building was reportedly constructed in 1963, there is a potential for both friable and non-friable ACMs to be present. Reported sources of ACMs still remain within the subject building and include: blown-on asbestos insulation, stippled ceiling cover, floor tile and wall covering (reportedly enclosed). In addition, concrete block interior walls of the subject building reportedly contain Zonolite. Although Zonolite has the potential to contain asbestos, exposure to the Zonolite is considered unlikely unless demolition/renovations occur. Sanding, grinding, drilling or similar contact with ACMs have the potential for generating airborne asbestos fibres during future occupancy, renovations, alterations and/or building demolition. All handling of ACMs must be performed in accordance with applicable regulations and/or guidelines.
 - The Federal Government implemented the Ozone-Depleting Substances (ODSs) Regulations in 1994 to amend controls, and, on the manufacture and use of chlorofluorocarbons (CFCs), halons, carbon tetrachloride and methyl chloroform. Since the subject building was constructed prior to 1994, it is possible that ODS containing equipment (i.e., refrigerators, etc.) are present in the subject building. It is recommended that all handling of ODSs be performed by certified technicians in accordance with applicable guidelines and/or regulations.

- Based on the age of the building) at the site (constructed in 1963) and that Polychlorinated Biphenyls (PCBs) were used in electrical and mechanical equipment prior to 1980, it is possible that PCBs are present at the site. While the use of PCB-containing electrical (i.e. fluorescent light ballasts, transformers, etc.) and mechanical equipment does not represent an environmental concern (provided they are not leaking) it is recommended that all electrical and mechanical equipment be checked for potential PCB-containing dielectric fluid prior to disposal. Because of the potential for generating furans and dioxins in the event of a fire, early removal and disposal of all PCB-containing equipment (if any) is preferred. All PCB containing equipment (if any) should be disposed of in accordance with provincial and/or federal regulations and guidelines.
- It is recommended that all mercury containing equipment (i.e., thermostats etc.) be handled in accordance with applicable guidelines and/or regulations.
- The subject building should be monitored for radon gas.

5.0 CLOSURE

A Phase I Environmental Site Assessment (ESA) was conducted for the property legally described as:

- *Parcel D, Plan 61S14744, and Plan 68S04040, Saskatoon, Saskatchewan*

The subject property is located along the east side of Spadina Crescent East, adjacent to the west bank of the South Saskatchewan River in the City Park Subdivision of Saskatoon, Saskatchewan. The civic address for the subject site is 950 Spadina Crescent East.

This Phase I ESA consisted of a review of sequential aerial photographs, historical records, Provincial Land Titles, a visual site review, interviews and file searches conducted by the City of Saskatoon Fire Department, the City of Saskatoon Building Department and Saskatchewan Ministry of the Environment.

If additional information becomes available regarding the environmental hazard potential of this site, our report and recommendations should be reviewed in the light of any new information.


The Phase I ESA report has been prepared for the exclusive use of the City of Saskatoon and their agents for specific application to Kinsmen Park, Saskatoon, Saskatchewan. It has been prepared in accordance with generally accepted geoenvironmental engineering practices and no other warranty, express or implied, is made. Any uses, which a Third Party makes of this report, or any reliance on decisions to be made based on it, are the responsibility of such Third Parties. P. Machibroda Engineering Ltd. accepts no responsibility for damages, if any, suffered by any Third Party as a result of decisions made or actions based on this report.


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We trust that the report fulfills your requirements for this project. Should you have any questions or require additional information, please contact us.

P. MACHIBRODA ENGINEERING LTD.


 Michael Kuley, Engineer in Training


 Ray Machibroda, P. Eng., M. Sc.
 MK:RM:clb

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6.0 REFERENCES

Acton, D. F., Clayton, J. S., Ellis, J. G., Christiansen, E. A., and Kupsch, W. O. 1960. Physiographic divisions of Saskatchewan. Saskatchewan Research Council, Map No. 1.

Christiansen, E. A. 1967. Geology and Groundwater Resources of the Saskatoon Area (73 – B), Saskatchewan Research Council, Geology Division, Saskatoon, Canada, Map No. 7.

7.0 QUALIFICATIONS OF ASSESSORS

Michael Kuley, B. Sc. has a degree in Civil Engineering from the University of Saskatchewan. He has completed over 100 Phase I ESA's at a variety of sites including industrial, commercial, and residential properties. His experience also includes assessment and remediation of petroleum hydrocarbon, heavy metal and polyaromatic hydrocarbon impacted sites.

Ray Machibroda, P. Eng, M.Sc. is a senior geoenvironmental engineer with over 20 years of experience. He has conducted hundreds of Environmental Site Assessments and is experienced in both assessment and remediation of sites including industrial commercial and residential properties. His experience also includes assessment of landfills and sewage lagoons, risk assessments, and Brownfield redevelopment.



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DRAWINGS



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LEGEND

 -PROPERTY LINE



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 SASKATOON, SK
 S7K 3Y4

DRAWING TITLE:

KEY PLAN AND SURROUNDING LAND USE

PROJECT:

**PHASE I - ENVIRONMENTAL SITE ASSESSMENT
 MENDEL ART GALLERY AND AREA, SASKATOON, SK**

APPROVED BY:

M. KULEY

DRAWN BY:

G. SOLTYS

DRAWING NUMBER:

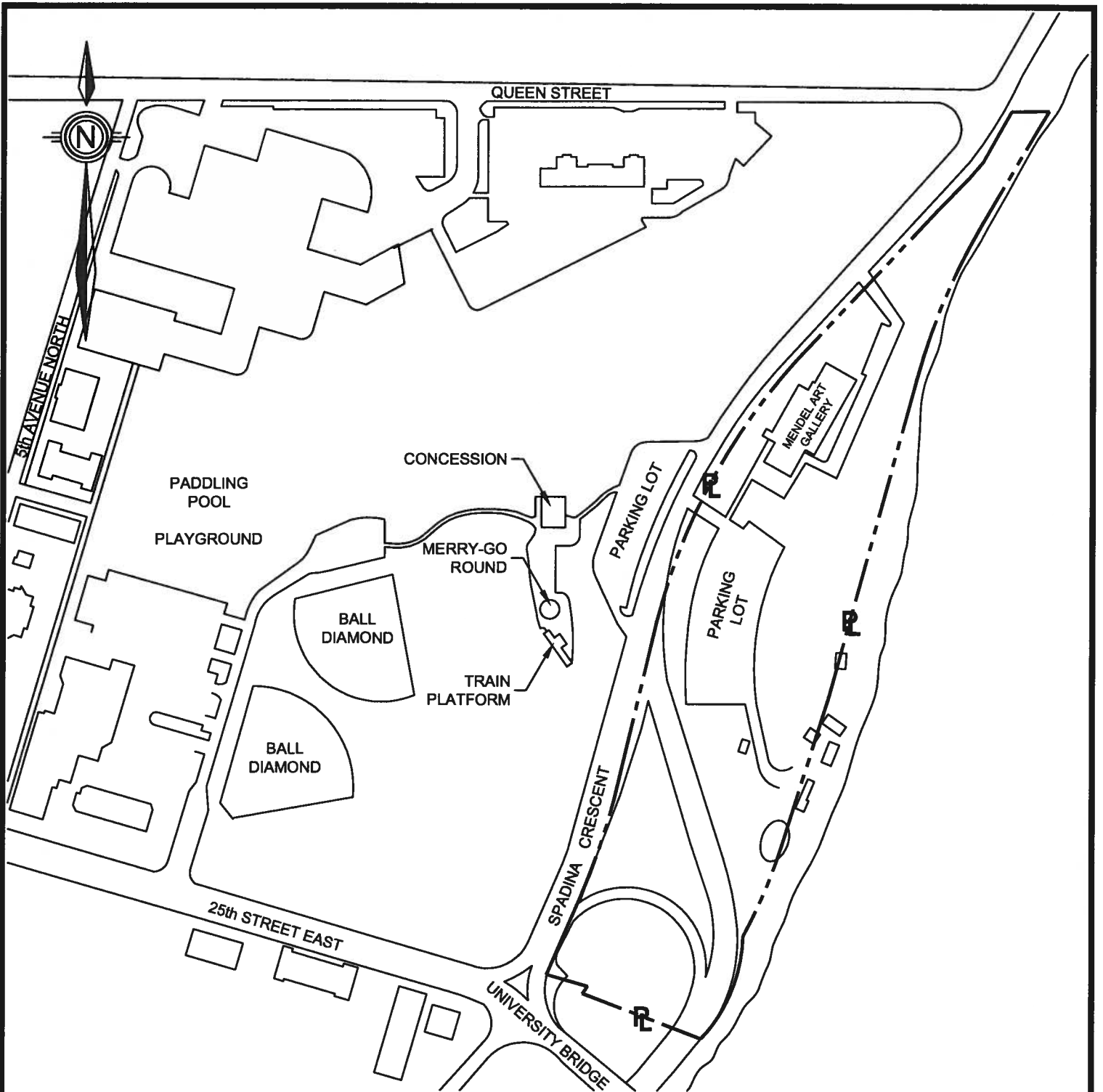
S11-7721A-1

DATE:

AUGUST, 2011

SCALE:

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DRAWING TITLE:

SITE PLAN

PROJECT:

**PHASE I - ENVIRONMENTAL SITE ASSESSMENT
 MENDEL ART GALLERY AND AREA, SASKATOON, SK**

APPROVED BY:

M. KULEY

DRAWN BY:

G. SOLTYS

DRAWING NUMBER:

S11-7721A-2

DATE:

AUGUST, 2011

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APPENDIX A

Aerial Photographs



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DRAWING TITLE:

AERIAL PHOTOGRAPH (1949)

PROJECT:

**PHASE I - ENVIRONMENTAL SITE ASSESSMENT
 KINSMEN PARK AND AREA MASTER PLAN, SASKATOON, SK**

APPROVED BY:

M. KULEY

DRAWN BY:

G. SOLTYS

DRAWING NUMBER:

S11-7721A-1949

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DRAWING TITLE:

AERIAL PHOTOGRAPH (1967)

PROJECT:

**PHASE I - ENVIRONMENTAL SITE ASSESSMENT
KINSMEN PARK AND AREA MASTER PLAN, SASKATOON, SK**

APPROVED BY:

M. KULEY

DRAWN BY:

G. SOLTYS

DRAWING NUMBER:

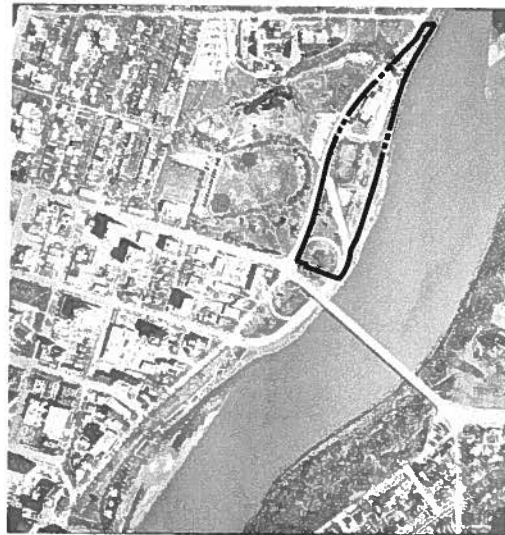
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DRAWING TITLE:

AERIAL PHOTOGRAPH (1979)

PROJECT:

**PHASE I - ENVIRONMENTAL SITE ASSESSMENT
KINSMEN PARK AND AREA MASTER PLAN, SASKATOON, SK**

APPROVED BY:

M. KULEY

DRAWN BY:

G. SOLTYS

DRAWING NUMBER:

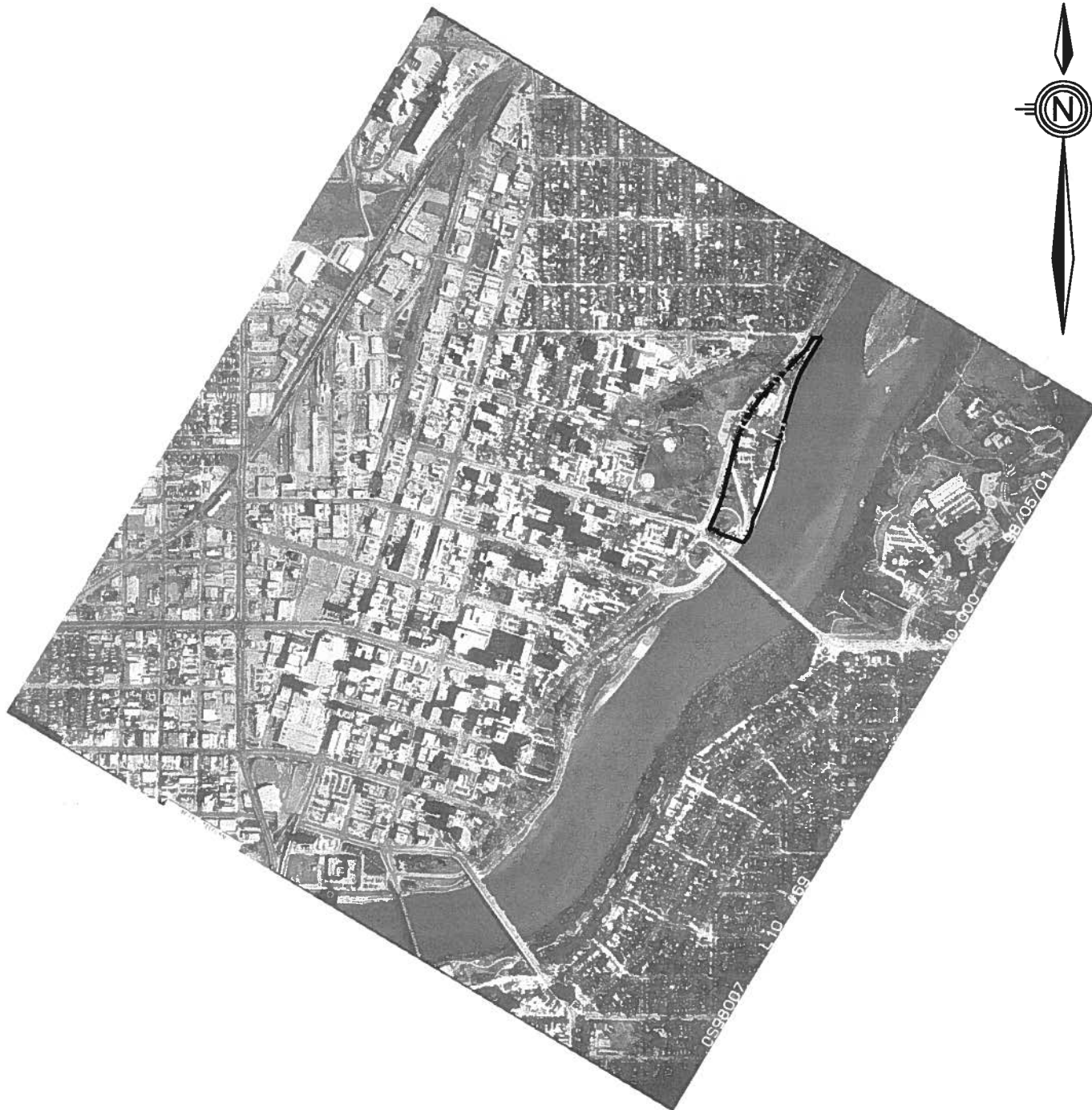
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DRAWING TITLE:

AERIAL PHOTOGRAPH (1998)

PROJECT:

**PHASE I - ENVIRONMENTAL SITE ASSESSMENT
KINSMEN PARK AND AREA MASTER PLAN, SASKATOON, SK**

APPROVED BY:

M. KULEY

DRAWN BY:

G. SOLTYS

DRAWING NUMBER:

S11-7721A-1998

DATE:

JUNE, 2011

SCALE:

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APPENDIX B

Chain of Title

Civic Address: 950 Spadina Crescent

Legal Description: Parcel D, Plan 61-S-14744, Saskatoon, SK

Date	Certificate of Title	Remarks
July 24, 2002	City of Saskatoon	
August 14, 1961	City of Saskatoon	
March 10, 1905	The Corporation of the Town of Saskatoon	
July 6, 1982	James Campbell White, Charles Powell, Edmond Boyd Osler and Augustus Meredith	Merchant, Gentleman, Stock Brokers, Respectively
February 15, 1892	James Campbell White, Charles Powell, Edmond Boyd Osler and Augustus Meredith	Merchant, Gentleman, Stock Brokers, Respectively
June 3, 1890 (Grant)	The Temperance Colonization Society Limited	

APPENDIX C

ERIS ECOLOG Database Search



Canada's Primary Environmental Risk Information Service

Project Site: Kinsmen Park and Area
945 & 950 Spadina Crescent East
Saskatoon, SK

Client: Cindy Bettin
P. Machibroda Engineering Ltd.
806 - 48th Street East
Saskatoon, SK S7K3Y4

ERIS Project No: 20110616056

Report Type: Custom Report - .25km Search Radius

Prepared By: Daniela Nigro
dnigro@eris.ca

Date: June 27, 2011

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Site Name: Kinsmen Park and Area
Site Address: 945 & 950 Spadina Crescent East Saskatoon, SK
Report Type: Custom Report, 0.25 km Search Radius

	<u>Section</u>
Report Summary <i>This outlines the number of records from each database that fall on the site, and within various distances from the site.</i>	i
Site Diagram <i>The records that were found within a specified distance from the project property (the primary search radius) have been plotted on a diagram to provide you with a visual representation of the information available. Sites will be plotted on the diagram if there is sufficient information from the database source to determine accurate geographic coordinates. Each plotted site is marked with an acronym identifying the database in which the record was found (i.e., WDS for Waste Disposal Sites). These are referred to as "Map Keys". A variety of problems are inherent when attempting to associate various government or private source records with locations. EcoLog ERIS has attempted to make the best fit possible between the available data and their positions on the site diagram.</i>	ii
Site Profile <i>This table describes the records that relate directly to the property that is being researched.</i>	iii
Detail Report <i>This section represents information, by database, for the records found within the primary search radius. Listed at the end of each database are the sites that could not be plotted on the locator diagram because of insufficient address information. These records will not have map keys. They have been included because they may be found to be relevant during a more detailed investigation.</i>	iv
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Appendix: Database Descriptions

Report Summary

Order Number: 20110616056
 Site Name: Kinsmen Park and Area
 Site Address: 945 & 950 Spadina Crescent East Saskatoon, SK
 Report Type: Custom Report, 0.25 km Search Radius

Number of Mappable Records Surrounding the Site

Database	Selected	On-site	Within 0.25	0.25km to 0.25km	Total
AUWR Automobile Wrecking & Supplies	Y	0	0	0	0
CHEM Chemical Register	Y	0	0	0	0
CONV Convictions	Y	0	0	0	0
DIS Wastewater Dischargers	Y	0	0	0	0
EEM Environmental Effects Monitoring	Y	0	0	0	0
EHS ERIS Historical Searches	Y	0	14	0	14
EIIS Environmental Issues Information System	Y	0	0	0	0
ES Environmental Spills	Y	0	4	0	4
FCON Federal Convictions	Y	0	0	0	0
FCS Contaminated Sites on Federal Land	Y	0	0	0	0
HMS Hazardous Material Storage	Y	1	11	0	11
HORW Horizontal Wells	Y	0	0	0	0
HSSS Hazardous Substance Storage Sites	Y	0	0	0	0
HSST Hazardous Substance Storage Tanks	Y	0	4	0	4
IAFT Indian & Northern Affairs Fuel Tanks	Y	0	0	0	0
ILOA Intensive Livestock Operation Approvals	Y	0	0	0	0
MINE Canadian Mine Locations	Y	0	0	0	0
MNR Mineral Occurrences	Y	0	0	0	0
NATE National Analysis of Trends in Emergencies System (NATES)	Y	0	1	0	1
NDFT National Defence & Canadian Forces Fuel Storage Tanks	Y	0	0	0	0
NDSP National Defence & Canadian Forces Spills	Y	0	0	0	0
NDWD National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0	0
NEES National Environmental Emergencies System (NEES)	Y	0	1	0	1
NPCB National PCB Inventory	Y	0	1	0	1
NPRI National Pollutant Release Inventory	Y	0	0	0	0
OGS Upstream Oil & Gas Site Spills	Y	0	0	0	0
OGW Oil and Gas Wells	Y	0	0	0	0
PAP Canadian Pulp and Paper	Y	0	0	0	0
PCFT Parks Canada Fuel Storage Tanks	Y	0	0	0	0
PES Pesticide Register	Y	0	0	0	0
RST Retail Fuel Storage Tanks	Y	0	3	0	3
SCT Scott's Manufacturing Directory	Y	0	12	0	12
WDS Waste Disposal Site Inventory	Y	0	0	0	0
WWIS Water Well Information System	Y	0	1	0	1
TOTAL		1	52	0	52

The databases chosen by the client as per the submitted order form are denoted in the 'Selected' column in the above table. Counts have been provided outside the primary buffer area for cursory examination only. These records have not been examined or verified, therefore, they are subject to change.



Pinpointing Your Environmental Risks

12 Concorde Pl, Suite 800 North York, ON M3C 4J2
416-510-5204

Project Property: Kinsmen Park and Area
945 & 950 Spadina Crescent East
Saskatoon, SK

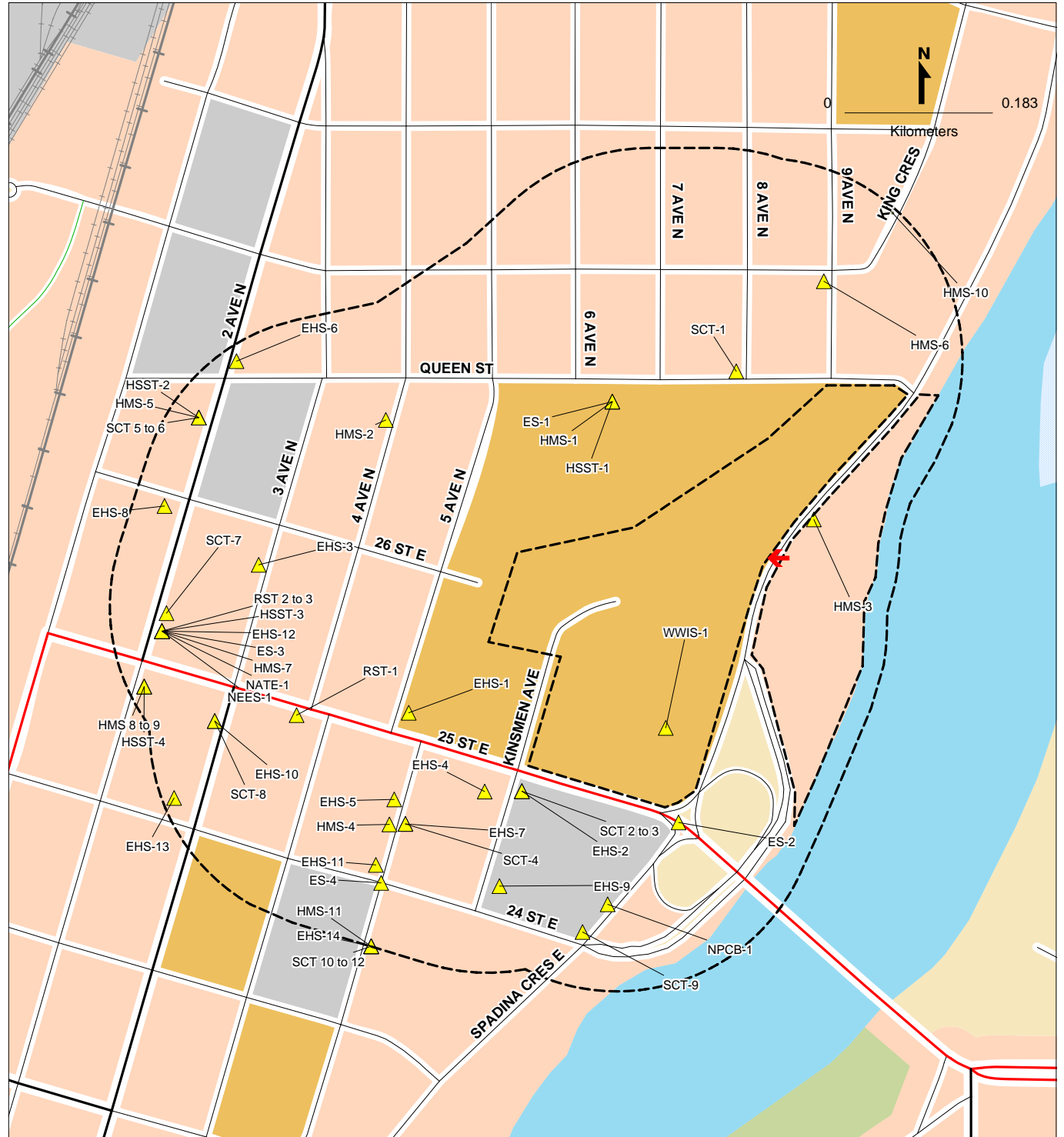
ERIS Project #: 20110616056

Date: JUN-27-2011

LEGEND

Project Property	Landuse Classifications
Database Location	Open Area
Points of Interest	Residential
Chimney	Commercial
Silo	Resource and Industrial
Pipe & Transmission Lines	Government and Institutional
Pipeline	Parks and Recreational
Transmission Line	Waterbody
Transmission Tower	Recreation
Transformer Station	Golf Course/Driving Range
Rail	Park/Sports Field
Railway - Main	Other Recreation Area
Railway - Sidetrack	Sports/Race Track
Railway - Abandoned	Cemetery
Bridge	Campground
Tunnel	Vegetation
Transportation - Other	Wooded Area
Embankment	Orchard
Trail	Vineyard
Runway	Industrial Resources
Hydrographic Features	Conveyor
Permanent Waterway	Crane: Moveable
Intermittent Waterway	Crane: Stationary
Open Reservoir	Tank
Dyke/Levee	Rock Cut
Dam	Auto Wrecker
Breakwall	Lumber Yard
Wetland	Pit

SITE DIAGRAM



This diagram is to be used solely for relative street location purposes. It may not accurately portray street or site positions.

Site Report

Order Number: 20110616056
Site Name: Kinsmen Park and Area
Site Address: 945 & 950 Spadina Crescent East Saskatoon, SK
Report Type: Custom Report, 0.25 km Search Radius

FOR COMPLETE INFORMATION, REFER TO DETAIL REPORT

Hazardous Material Storage

Map Key	Company Name	Address	City	Postal Code
HMS-3		950 SPADINA CRES. E., SASKATOON		S7K 3H6

Detail Report

Order Number: 20110616056
Site Name: Kinsmen Park and Area
Site Address: 945 & 950 Spadina Crescent East Saskatoon SK
Report Type: Custom Report, 0.25 km Search Radius

If information is required for sites located beyond the selected address, please contact your ERIS representative.

ERIS Historical Searches

Environmental Spills

Hazardous Material Storage

Hazardous Substance Storage Tanks

National Analysis of Trends in Emergencies System (NATES)

National Environmental Emergencies System (NEES)

National PCB Inventory

Retail Fuel Storage Tanks

Scott's Manufacturing Directory

Water Well Information System

ERIS Historical Searches

Map Key	Company	Address	Order No.	Report Date	Report Type	Search Radius (km)
EHS-1		410 5 Ave N Saskatoon S7K 6Z4	20020326002	3/28/02	Site Report	0.25
			Addit. Info Ordered:			
EHS-2		336 - 6th Avenue North Saskatoon S7K 2S5	20080512023	5/22/2008	Complete Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps And /or Site Plans		
EHS-3		431 3 Avenue North Saskatoon S7K 4Z3	20080402061	4/8/2008	Custom Report	0.25
			Addit. Info Ordered:			
EHS-4		337 6th Ave North Saskatoon	20090310012	3/19/2009	Standard Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps and/or Site Plans		
EHS-5		325-5 Avenue North Saskatoon	20081112004	11/20/2008	Standard Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps and/or Site Plans		
EHS-6		610 2nd Avenue N. Saskatoon S7K 2C7	20041026005	11/3/04	Basic Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps and/or Site Plans		
EHS-7		320-5th Avenue North Saskatoon	20080214006	2/26/2008	Complete Report	0.25
			Addit. Info Ordered:			
EHS-8		493-2nd Avenue North Saskatoon S7K 2C1	20091029027	11/9/2009	Standard Report	0.25
			Addit. Info Ordered:			
EHS-9		324-6th Avenue North Saskatoon S7K 2S5	20080529049	6/9/2008	Complete Report	0.25
			Addit. Info Ordered:			
EHS-10		325-3rd Avenue North Saskatoon S7K 2H9	20100625013	7/8/2010	Standard Report	0.25
			Addit. Info Ordered:			

ERIS Historical Searches

Map Key	Company	Address	Order No.	Report Date	Report Type	Search Radius (km)
EHS-11		247 - 5th Avenue North Saskatoon	20060913001	9/21/2006	Custom Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps And /or Site Plans		
EHS-12		402 - 2nd Avenue North Saskatoon S7K 2C3	20080923021	10/2/2008	Standard Report	0.25
			Addit. Info Ordered:			
EHS-13		220-24 Street East Saskatoon	20090427021	5/6/2009	Standard Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps and/or Site Plans		
EHS-14		204 5th Ave North Saskatoon S7K 2P1	20000911013	9/28/00	Complete Report	0.50
			Addit. Info Ordered:			

Environmental Spills

Map Key	Company	Address	Spill ID	Date of Spill	Quantity	Units	DLS	Material
ES-1		701 QUEEN STREET Saskatoon S7K 0M7	81340	8/9/2005	1	L		OTHER
			Other Material					
ES-2		Spadina and 25th Street Saskatoon	50298	8/19/2005	225	L		GLYCOL
			Other Material		DOWFROST			
ES-3		SASKATOON TEXACO 402 2ND AVE N.; SASKATOON - 25TH SASKATOON	1984-0240	//	unknown	Litres		GASOLINE
			Other Material					
ES-4		5th ave & 24th st. saskatoon; SASKATOON	1996-0272	7/3/1996	450	Litres		OTHER OILS
			Other Material					

Hazardous Material Storage

Map Key	Company	Address	Operation ID	Operation Status	Operation Name	Land Description
HMS-1		701 QUEEN ST., SASKATOON S7K 0M7	7439	Operating	SASKATOON CITY HOSPITAL STORAGE SITE	
HMS-2		537 4TH AVE. N., SASKATOON	8089	Reclaimed	CANDLEWOOD APARTMENT STORAGE SITE	
HMS-3		950 SPADINA CRES. E., SASKATOON S7K 3H6	8200	Decommissioning	MENDEL ART GALLERY STORAGE SITE	
HMS-4		315 5TH AVE. N., SASKATOON	7973	Under Construction	THE TERRACE STORAGE SITE	
HMS-5		519 2ND AVE. N., SASKATOON S7K 2C6	7076	Operating	GREAT WESTERN BREWING COMPANY LTD. STORAGE SITE	
HMS-6		627 9TH AVE. N., SASKATOON S7K 2Y6	8072	Reclaimed	PRIVATE 627 9TH AVE. N. SASKATOON STORAGE SITE	
HMS-7		402 2ND AVE. N., SASKATOON S7K 2C3	11123	Operating	PARKTOWN SERVICE LTD. STORAGE SITE	
HMS-8		380 2ND AVE. N., SASKATOON S7K 2B9	10758	Operating	7-ELEVEN STORE & GAS BAR (SASKATOON) STORAGE SITE	
HMS-9		380 2ND AVE. N., SASKATOON S7K 2B9	9751	Reclaimed	SASKATOON MOTOR PRODUCTS (1973) LTD. (2ND AVENUE) STORAGE SI	
HMS-10		1033 KING CRES., SASKATOON S7K 0N9	8061	Reclaimed	PRIVATE 1033 KING CRES. SASKATOON STORAGE SITE	
HMS-11		204 5TH AVE. N., SASKATOON S7K 2P1	7981	Operating	STAR PHOENIX STORAGE SITE	

Hazardous Substance Storage Tanks

Map Key	Company	Address	Facility Code	Business Description	Type	Capacity (L)	Tank Contents Description	Other Contents
HSST-1	SASKATOON CITY HOSPITAL	701 QUEEN ST. SASKATOON S7K 0M7	OT - 1199	Other	Underground	4500	DIESEL	
					Aboveground	300	DIESEL	
					Aboveground	1400	DIESEL	
					Underground	45000	DIESEL	
					Underground	45000	DIESEL	
					Underground	45000	DIESEL	
HSST-2	GREAT WESTERN BREWING COMPANY LTD.	519 2ND AVE. N. SASKATOON S7K 2C6	MA - 139	Manufacturing Industry	Aboveground	0	CHEMICAL / OTHER	ALCAHOL
					Aboveground	0	CHEMICAL / OTHER	ALCAHOL
HSST-3	PARKTOWN SERVICE LTD.	402 2ND AVE. N. SASKATOON S7K 2C3	SE - 38	Service Station	Underground	50000		
					Underground	50000		
					Underground	25000		
HSST-4	7-ELEVEN STORE & GAS BAR (SASKATOON)	380 2ND AVE. N. SASKATOON S7K 2B9	SE - 1822	Service Station	Underground	50000	GASOLINE (MOTOR)	
					Underground	30000	GASOLINE (MOTOR)	
					Underground	30000	GASOLINE (MOTOR)	

National Environmental Emergencies System (NEES)

Map Key	Company	Address	Incident Date	Contaminant
NEES-1	TEXACO402SECONDAVE	SASKATOON	2/8/84	gasoline
			Amount:	
			Units:	
			Quantity:	
			Cause:	Underground Tank Leak
			Source:	Service Station
			Reason:	Corrosion
			Sector:	Petroleum

National PCB Inventory

Map Key	Company	Address	Company Code	Transaction Date	Inspection Date	Industry	Site Status
NPCB-1	UKRAINIAN MUSEUM OF CANADA	910 SPADINA CRES. E. SASKATOON S7K 3H5	U0235		1/20/1994	OTHER	

<u>Label</u>	<u>No. of Items</u>	<u>Contents</u>	<u>Serial No.</u>	<u>Item/State</u>	<u>Status</u>	<u>PCB Type/Code</u>	<u>Location</u>	<u>Manufacturer</u>
--------------	---------------------	-----------------	-------------------	-------------------	---------------	----------------------	-----------------	---------------------

Retail Fuel Storage Tanks

Map Key	Company	Address	Facility	Description
RST-1	MOHAWK OIL CO LTD, MOHAWK OIL CO LTD	401-333 25TH ST E SASKATOON S7K 0L4	Service Stations-Gasoline, Oil & Natural Gas	
RST-2	PARK TOWN ESSO	402 2ND AVE N SASKATOON S7K 2C3	Service Stations-Gasoline, Oil & Natural Gas	
RST-3	PARK TOWN ESSO	402 2ND AVE N SASKATOON S7K2C3	Service Stations-Gasoline, Oil & Natural Gas	

Scott's Manufacturing Directory

Map Key	Company	Address	Established	Plant Size (ft ²)	Employment	SIC/NAICS Code	Description
SCT-1	People In Their World	716 Queen St Saskatoon S7K 0M9	1/1/2000			511210	Software Publishers
						339930	Doll, Toy and Game Manufacturing
						323119	Other Printing
						541510	Computer Systems Design and Related Services
						323119	Other Printing
SCT-2	Aurum Ceramic Dental Labs	336 6th Ave N Saskatoon S7K 2S5			10	339110	Medical Equipment and Supplies Manufacturing
SCT-3	Aurum Ceramic Dental Laboratories (Sask) Ltd.	336 6th Ave N Saskatoon S7K 2S5			10	339110	Medical Equipment and Supplies Manufacturing
SCT-4	Hallam Dental Aesthetics Inc.	320 5th Ave N Saskatoon S7K 2P5	01-FEB-98			339110	Medical Equipment and Supplies Manufacturing
						339110	Medical Equipment and Supplies Manufacturing
SCT-5	Great Western Brewing Company	519 2nd Ave N Saskatoon S7K 2C6	01-JAN-89	84000		312120	Breweries
						312120	Breweries
SCT-6	Great Western Brewing Company Limited	519 2nd Ave N Saskatoon S7K 2C6	1990	84000	50	312120	Breweries
SCT-7	MID-WEST SPORTSWEAR LTD.	410 2nd Ave N Saskatoon S7K 2C3	1980	12000	50	314990	All Other Textile Product Mills
						315210	Cut and Sew Clothing Contracting
						315229	Other Men's and Boys' Cut and Sew Clothing Manufacturing
						315239	Other Women's and Girls' Cut and Sew Clothing Manufacturing
						315299	All Other Cut and Sew Clothing Manufacturing
323113	Commercial Screen Printing						

Scott's Manufacturing Directory

Map Key	Company	Address	Established	Plant Size (ft ²)	Employment	SIC/NAICS Code	Description
SCT-8	CHROMAGRAPHS INC.	1-325 3rd Ave N Saskatoon S7K 2H9	1985	1800	2	333310	Commercial and Service Industry Machinery Manufacturing
SCT-9	VICOM MEDIA SASKATCHEWAN	902 Spadina Cres E Saskatoon S7K 3H5	1987	0	12	333310 334610	Commercial and Service Industry Machinery Manufacturing Manufacturing and Reproducing Magnetic and Optical Media
SCT-10	The StarPhoenix	204 5th Ave N Saskatoon S7K 2P1	01-JAN-40			511110	Newspaper Publishers
SCT-11	Saskatoon Sun	204 5th Ave N Saskatoon S7K 2P1	1928		330	511110	Newspaper Publishers
SCT-12	THE STARPHOENIX	204 5th Ave N Saskatoon S7K 2P1	1928	0	330	511110	Newspaper Publishers

Water Well Information System

Map Key	Company	Address	Driller Report #	Completed Date	Depth (ft)	Elevation (ft)	Water Use	Well Use	Method Well Developed
WWIS-1			031984		236	1590	Industrial	Withdrawal	Drilled
DLS Coordinates: SE1/4-33-36-05-3 Municipality: CORMAN PARK RM OF									
			<u>Depth (ft)</u>	<u>Colour</u>	<u>Material</u>	<u>Description</u>			
			20	Yellow	Gravelly Clay	Boulders			
			180	Blue	Clay	Boulders			
			210	Blue	Clay	Soft			
			225	Unknown	Sand	Unknown			
			236	Unknown	Sandy Clay	Unknown			

Appendix: Saskatchewan Database Descriptions

EcoLog Environmental Risk Information Services Ltd can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to EcoLog ERIS at the time of update. **Note:** Databases denoted with “*” indicates that the database will no longer be updated. See the individual database descriptions for more information.

Provincial Source Databases:

Convictions 1995-Apr 2010

CONV

This database summarizes the penalties and convictions handed down by the Saskatchewan courts. Companies and individuals that have been found guilty of environmental offenses under Saskatchewan’s Environmental Protection Legislation are listed in this database. The records in this database are associated with the City the offense took place and are not plotted.

Wastewater Dischargers 2000-May 2010

DIS

This database is maintained by SERM and supplies the locations of the wastewater dischargers in the province. The geographic coordinates have been provided in DLS (Dominion Land Survey) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the LSD or Quarter section only.

Environmental Spills 1977-Mar 2011

ES

This database includes an inventory of known spills that occurred throughout the province and that are reported under regulation R.R.S. c. D-14, Reg. 1. Some of the geographic coordinates have been provided in DLS (Dominion Land Survey) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the LSD or Quarter section only.

Hazardous Material Storage Sites 1980-Mar 2011

HMS

The Saskatchewan Hazardous Materials Storage Program collects this information. With the approval of the Ministry of Environment, hazardous substances and waste dangerous goods can be stored in underground storage tanks, above-ground storage tanks, outdoor storage site and warehouse/indoor storage sites. A hazardous substance/waste is defined as a substance/waste that because of its quantity, concentration or physical, chemical or infectious characteristics, either individually or in combination with other substances, is an existing or potential threat to the environment or human health. This inventory includes information on operator ID, operation name, address, legal land description and operation status.

Horizontal Wells Aug 1987-June 2007

HORW

Saskatchewan Industry and Resources maintains an inventory of all horizontal wells drilled in the province. The database provides detailed information in regard to well name, owner name, status, licence no., initial and final drilling date, well type, horizon name and pool name.

Hazardous Substance Storage Sites 1989-Feb 2006*

HSSS

This is an inventory of hazardous substance storage sites that must be registered under regulation 25/92, S. 3. The database is a catalog of information on the location of outdoor and warehouse sites, housing hazardous products used by companies in the agricultural, chemical, farming, warehousing, trucking, waste recycling, distribution, service stations/repair shops, bulk stations, autobody, mining, and manufacturing industry. Information is provided on the type of product(s) stored, application date, company name, location, and the type of business service operated on site. For current information, please refer to the HMS database.

Hazardous Substance Storage Tanks 1989-Feb 2006*

HSST

This is an inventory of hazardous substance storage tanks that must be registered under regulation 25/92, S. 3. The database is a compilation of information on aboveground and underground storage tanks that hold substances such as gasoline, diesel, chemicals, heating oil, kerosene and alcohol blended products. Information is provided on the contents and capacity of the tank, company name, location, and the type of business service operated on site. For current information, please refer to the HMS database.

Intensive Livestock Operations 1971-May 2009

ILOA

Under the Agricultural Operations Act, certain types of intensive livestock operations are required to obtain plan approval. Approvals are subject to the size of operation and their proximity to a water source. Those requiring plan approval must submit documentation regarding manure storage, utilization of manure nutrients and disposal method for dead animals. Sask. Agriculture, Food and Rural Revitalization maintains a database of approvals issued over the last three decades, for operations that may or may not be currently operational. An ILO plan approval may have been issued to an intensive livestock operation but never been constructed, been approved and not constructed yet, or it may have been constructed and later discontinued. There is no distinction in the database between operational and non-operational sites. Please note that the value "Sum of Animal Units" is a calculation used to compare different types of livestock operations (each type of animal is rated on a scale). Geographic coordinates were provided in DLS (Dominion Land Survey) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the Quarter section only.

Mineral Occurrences 1981-Nov 2006

MNR

Saskatchewan Energy and Mines maintains an inventory of 2890 separate mineral occurrences in the "Saskatchewan Mineral Deposit Index" regarding metallic, industrial mineral and coal deposits. Information within the database pertains to the SMDI No., showing name, location, commodity, deposit type, status, classification and geographical reference data. For additional information regarding geological data and exploration history, please contact the office and quote the SMDI No.

Upstream Oil and Gas Site Spills 1990-Jan 2011

OGS

Saskatchewan Industry and Resource compiles spill information pertaining to crude oil, produced water and spills on upstream oil and gas facilities. Information includes location, date of spill, substance spilled, total amount spilled and source.

Pesticide Register 1998-Apr 2010

PES

Saskatchewan Agriculture and Food maintains a database of all vendors of registered pesticides.

Waste Disposal Site Inventory 2000-May 2010

WDS

This inventory pertains to registered waste disposal sites within the province of Saskatchewan. Specific dates as to when the waste disposal site was activated are not available. The geographic coordinates have been provided in DLS (Dominion Land Survey) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the LSD or Quarter section only.

Water Well Information System 1900-Jun 2010

WWIS

This database was collected from Saskatchewan Water, Water Resource Administration and contains over 100,000 records. The geographic coordinates have been provided in DLS (Dominion Land Survey) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the LSD or Quarter section only.

Federal Government Source Databases:

Diagram Identifier:

Environmental Effects Monitoring 1992-2007*

EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Environmental Issues Inventory System 1992-2001*

EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Federal Convictions 1988-Jun 2007

FCON

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Contaminated Sites on Federal Land June 2000-May 2011

FCS

The Treasury Board of Canada Secretariat maintains an inventory of all known contaminated sites held by various Federal departments and agencies. This inventory does not include properties owned by Crown corporations, but does contain non-federal sites for which the Government of Canada has accepted some or all financial responsibility. All sites have been classified through a system developed by the Canadian Council of Ministers of the Environment. The database provides information on company name, location, site ID #, property use, classification, current status, contaminant type and plan of action for site remediation.

Indian & Northern Affairs Fuel Tanks 1950-Aug 2003

IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of all aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

National Analysis of Trends in Emergencies System (NATES) 1974-1994*

NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

National Defence & Canadian Forces Fuel Tanks Up to May 2001*

NDFT

The Department of National Defence and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

National Defence & Canadian Forces Spills Mar 1999-Aug 2010

NDSP

The Department of National Defence and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

National Defence & Canadian Forces Waste Disposal Sites 2001-April 2007

NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

National Environmental Emergencies System (NEES) 1974-2003

NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for all previous Environment Canada spill datasets. NEES is composed of the historic datasets – or Trends – which dates from approximately 1974 to present. **NEES Trends** is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

National PCB Inventory 1988-2008

NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. All federal out-of-service PCB containing equipment and all PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites.

National Pollutant Release Inventory 1993-2009

NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Parks Canada Fuel Storage Tanks 1920-Jan 2005

PCFT

Canadian Heritage maintains an inventory of all known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Private Source Databases:

Automobile Wrecking & Supplies 2001-Jun 2010

AUWR

This database provides an inventory of all known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Chemical Register 1999-Jun 2010

CHEM

This database includes a listing of locations of facilities within Saskatchewan that either manufacture and/or distribute chemicals.

ERIS Historical Searches 1999-Apr 2011

EHS

EcoLog ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Canadian Mine Locations 1998-2009

MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Oil and Gas Wells 1988-Mar 2011

OGW

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickles' database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Canadian Pulp and Paper 1999, 2002, 2004, 2005, 2009

PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Retail Fuel Storage Tanks 1999-Jun 2010

RST

This database includes an inventory of known fuel outlet locations (including marinas) that have on their property gasoline, waste oil, natural gas and / or gas propane storage tanks.

Scott's Manufacturing Directory 1999-Mar 2011

SCT

Scott's Directories is a database of information on over 4000 manufacturers in Saskatchewan. Even though Scott's listings are voluntary, it is a comprehensive database of Saskatchewan manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

APPENDIX D
Closure Letter and
Petrocare Closure
Form Report

January 2, 1996

File: W8-6-2-3 ✓
OT - 1908

Mr. Bob Mcleod
City of Saskatoon
Civic Buildings and Grounds
1101 Avenue P North
SASKATOON SK SK S7L 7K6

Dear Mr. Mcleod:

Decommissioning of the Underground Petroleum Storage Tank at the Mendel Art Gallery, 950 Spadina Crescent East, Saskatoon, Saskatchewan. Facility Code: OT - 1908. Project Number: 2013

Saskatchewan Environment and Resource Management (SERM) has received and reviewed the report from Petrocare regarding the excavation and soil sampling at the above noted site.

Based on the information provided in the report and recognizing the inherent limitations of the methods employed, the area encompassed by the site investigation has been remediated to the department's present Commercial/Industrial criteria as specified in the Interim Guidelines for the Decommissioning of Petroleum Storage Facilities.

Please note that the position of SERM as described in this letter is based on the information which has been submitted to the department and relates only to the matters within the scope of the submission. Actions at the site without the department's knowledge may influence the environmental status of the land.

This letter is not intended to absolve any party from the potential for future liability for remediating this site in situations where either the land use may change or additional concerns arise from the contaminants remaining on/off site.

. . . 2

Mr. Bob Mcleod

Page 2

January 2, 1996

I trust that this information will meet your requirements. If you have any questions or require any further information, please contact me at the number listed below.

Yours sincerely,



Richard Wilkins

Fuel and Chemical Storage Unit

Commercial Branch

Saskatchewan Environment and Resource Management

Telephone: (306)787-0466

RW/ljs

cc: Ed Solie - City of Saskatoon Fire Department

Saskatchewan



Saskatchewan
Environment
and Resource
Management

Walter Scott Building
3085 Albert Street
Regina, Canada
S4S 0B1

DECOMMISSIONING CLOSURE REPORT FORM

SECTION 1 - ADMINISTRATIVE INFORMATION

REGISTRATION NUMBER 01-1908 PROJECT NUMBER 2013

MENDEL ART GALLERY PLEASE PRINT PHONE NUMBER AT THE FACILITY
1-306-975-7610

NAME OF FACILITY ADDRESS OF FACILITY TOWN
950 SPADINA CRESCENT E. SASKATOON

PETRO CARE CONSTRUCTION
NAME OF THE COMPANY DOING THE DECOMMISSIONING

HILL CONSTRUCTION LTD 0337
NAME OF THE CERTIFIED CONTRACTOR FOR THE PROJECT CERTIFICATION NUMBER

SECTION 2 UNDERGROUND STORAGE SITE INFORMATION

WAS THE AREA OF THE PUMP ISLAND CHECKED FOR CONTAMINATION?
YES NO N/A

WAS THE ISLAND REMOVED DURING THE DECOMMISSIONING?
YES NO N/A

WAS THE AREA OF THE PRODUCT DELIVERY LINES CHECKED FOR CONTAMINATION?
YES NO

WAS THERE ANY IMPACT ON UTILITY LINES BY CONTAMINATION?
YES NO

WAS THERE ANY IMPACT ON THE FOUNDATION OF ANY REMAINING BUILDINGS BY CONTAMINATION? YES NO

WAS THERE ANY OFF SITE MIGRATION OF THE CONTAMINANT DISCOVERED DURING EXCAVATION? YES NO

SECTION 3 ABOVEGROUND STORAGE SITE INFORMATION

WAS THE AREA OF THE LOADING RACK CHECKED FOR CONTAMINATION?
YES NO

WERE THERE ANY UNDERGROUND LINES ASSOCIATED WITH THIS
SITE YES NO

WAS THE AREA OF THE PRODUCT DELIVERY LINES CHECKED FOR
CONTAMINATION? YES NO

WAS THERE ANY IMPACT ON UTILITY LINES BY CONTAMINATION?
YES NO

WAS THERE ANY IMPACT ON THE FOUNDATION OF ANY REMAINING
BUILDINGS BY CONTAMINATION? YES NO

WAS THERE ANY OFF SITE MIGRATION OF THE CONTAMINANT
DISCOVERED DURING EXCAVATION? YES NO

SECTION 4 GENERAL DECOMMISSIONING INFORMATION

AMOUNT OF SOIL REMOVED

NONE M³

PLEASE NOTE THAT IF ANY TIME DURING THE EXCAVATION UTILITY CORRIDORS ARE FOUND TO BE IN THE PATH OF THE CONTAMINANT PLUME OR IF THE CONTAMINANT MIGRATES OFF THE FACILITY SITE, SASKATCHEWAN ENVIRONMENT AND RESOURCE MANAGEMENT AND LOCAL AUTHORITIES MUST BE NOTIFIED IMMEDIATELY. IF FREE PHASE PRODUCT IS ENCOUNTERED DURING THE EXCAVATION OR ON TOP OF THE WATER TABLE THE DEPARTMENT AND LOCAL AUTHORITIES MUST BE NOTIFIED IMMEDIATELY.

SECTION 5 SITE DIAGRAM

PLEASE SUPPLY A DIAGRAM OF THE SITE AFTER THE EXCAVATION. PLEASE INDICATE THE APPROXIMATE DIMENSIONS OF THE EXCAVATION, INCLUDING THE DEPTH OF THE EXCAVATION AT THE TANK FARM, THE PRODUCT DELIVERY LINES AND THE PUMP ISLAND. SHOW DISTANCES FROM THE EXCAVATION TO THE BUILDINGS AND ROADWAYS. INDICATE THE AREAS OF CONTAMINATION. PLEASE INDICATE WHERE EXPLOSIVE VAPOUR READINGS WERE TAKEN, AND ASSIGN EACH LOCATION A UNIQUE IDENTIFICATION NUMBER ON THE DIAGRAM. IN TABULAR FORM PLEASE INDICATE THE % LEL READINGS AND THE DEPTH AT WHICH THE READING WAS TAKEN. PLEASE INDICATE WHERE THE SOIL SAMPLES WERE TAKEN. A MINIMUM OF THREE SOIL SAMPLES WILL BE REQUIRED. THE LARGER THE EXCAVATION THE GREATER THE NUMBER OF SAMPLES REQUIRED. IF THE WATER TABLE IS HIGH ENOUGH TO IMPACT THE EXCAVATION AT LEAST ONE WATER SAMPLE SHOULD BE TAKEN.

SECTION 6 ANALYTICAL RESULTS

IF A LETTER STATING THAT THE FACILITY IS DECOMMISSIONED IS REQUIRED FROM THE DEPARTMENT, AT LEAST 3 SOIL SAMPLES (AND IF GROUND WATER IMPLICATIONS ARE A CONCERN AT LEAST 1 WATER SAMPLE) ARE TO BE SUBMITTED TO AN ACCREDITED LAB TO BE ANALYZED FOR PETROLEUM HYDROCARBONS AND THEIR CONSTITUENTS. A COPY OF THESE RESULTS MUST BE FORWARDED TO THE DEPARTMENT

I, THE UNDERSIGNED CERTIFY THAT ALL THE SAMPLES SUBMITTED FOR ANALYSIS WERE FROM THE EXCAVATION OF THIS PROJECT AND ARE REPRESENTATIVE OF CONDITIONS FOUND IN THE EXCAVATION, AND THAT APPROVED SAMPLING TECHNIQUES WERE EMPLOYED AT ALL TIMES DURING THE SAMPLING.

BILL FRIESEN
NAME OF PERSON COLLECTING THE SAMPLES

SIGNATURE

NUMBER OF SAMPLES TAKEN?

3
SOIL

WATER

ENVIRO TEST LABS
NAME OF LAB (PLEASE PRINT)

FOR OFFICE USE ONLY. PLEASE DO NOT WRITE IN THIS SPACE

ENVIRONMENTAL OFFICER'S NAME (PLEASE PRINT)

SIGNATURE

DATE _____ WERE ANALYTICAL RESULT INCLUDED YES NO

WERE RESULTS SATISFACTORY YES NO WHAT LEVEL OF CLEAN UP WAS ACHIEVED? _____

IS ANY FURTHER FOLLOW UP REQUIRED? YES NO

IF YES WHAT IS THE NATURE OF THE FOLLOW UP

**PETROCARE CONSTRUCTION SERVICES INC.
ATTENTION: JULES KENWOOD
1025 AVENUE P SOUTH
SASKATOON, SK S7M 2X5**

PROJECT: MENDEL ART GALLERY

Lab #	Client ID	Benzene	Toluene	Ethylbenzene	Xylene	Total Purgeables	Total Extractables
SS		(µg/g)	(µg/g)	(µg/g)	(µg/g)	(µg/g)	(µg/g)
10-12101	Side Wall SW Corner	<0.005	<0.005	<0.005	<0.02	<0.3	<5
10-12102	Dugout File	<0.005	<0.005	<0.005	<0.02	<0.3	218
10-12103	Bottom of Hole	<0.005	<0.005	<0.005	<0.02	<0.3	6

Approved By 
10/24/95

FILE #SS-10121





A DIVISION OF ETL CHEMISPEC ANALYTICAL LIMITED

9936 - 67 Avenue, Edmonton, Alberta T6E 0P5 Telephone: (403) 434-9509 Fax: (403) 437-2311
Bay 2, 1313 - 44 Avenue N.E., Calgary, Alberta T2E 6L5 Telephone: (403) 291-9897 Fax: (403) 291-0298
107 - 111 Research Drive, Saskatoon, Saskatchewan S7N 3R2 Telephone: (306) 668-8370 Fax: (306) 668-8383
11422 - 97 Avenue, Grande Prairie, Alberta T8V 5Z5 Telephone: (403) 539-5196 Fax: (403) 539-4941
Unit F - 1420 Clarence Avenue, Winnipeg, Manitoba R3T 1T8 Telephone: (204) 452-8104 Fax: (204) 477-8719

CHEMICAL ANALYSIS REPORT

October 24, 1995

Petrocare Construction Services Inc
1025 Ave P South
Saskatoon, SK
S7M 2X5

ATTENTION: Jules Kenwood

FAX:

Order #: S5-10 121
Project Reference: Mendel Art Gallery

Sampled by: Client

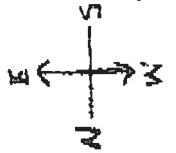
Date Rec'd: Oct 17, 1995

Project P.O. #:

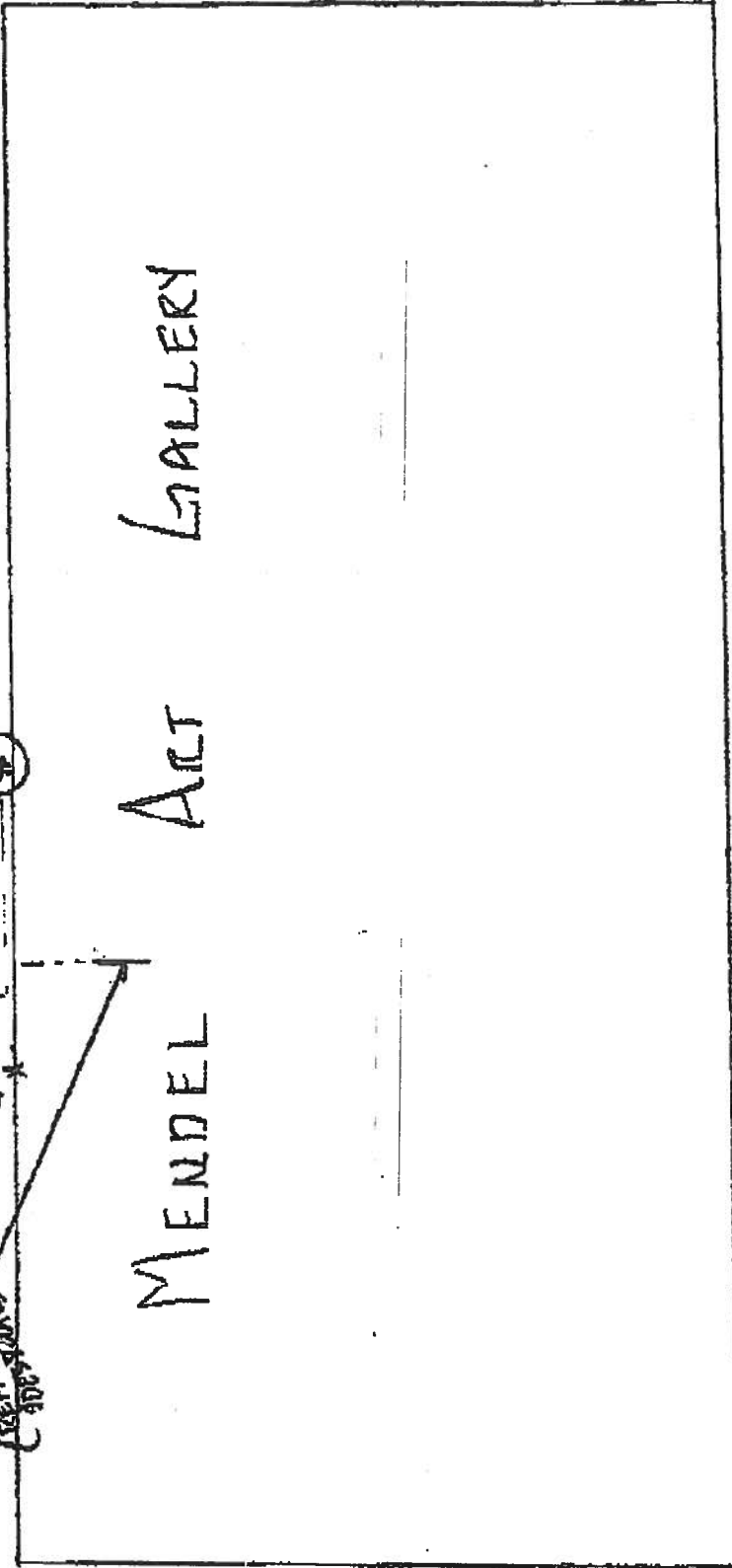
Comments:

Approved by: *L.W. Fox*

Lloyd W. Hodgins, Manager
Environmental Services



PARKING



AREA

PARK

SPADINA LIESCENT EAST

* SAMPLES TAKEN 10' DEEP.

Petrotech Construction Services Inc.
 1005 Avenue P South
 Saskatoon, Sask. S7M 2Y5

APPENDIX E

Photographs



PHOTOGRAPH NO. S11-7721A-01 **Panoramic photograph taken proximate the west side of the subject property looking northeast to southeast.**



PHOTOGRAPH NO. S11-7721A-02 **Panoramic photograph taken proximate the south side of the subject property looking north to east.**



PHOTOGRAPH NO. S11-7721A-03 **Panoramic photograph taken proximate the southeast side of the subject property looking west to north.**



PHOTOGRAPH NO. S11-7721A-04 **Panoramic photograph taken proximate the northeast side of the subject property looking south to west.**



PHOTOGRAPH NO. S11-7721A-05 Conservatory.



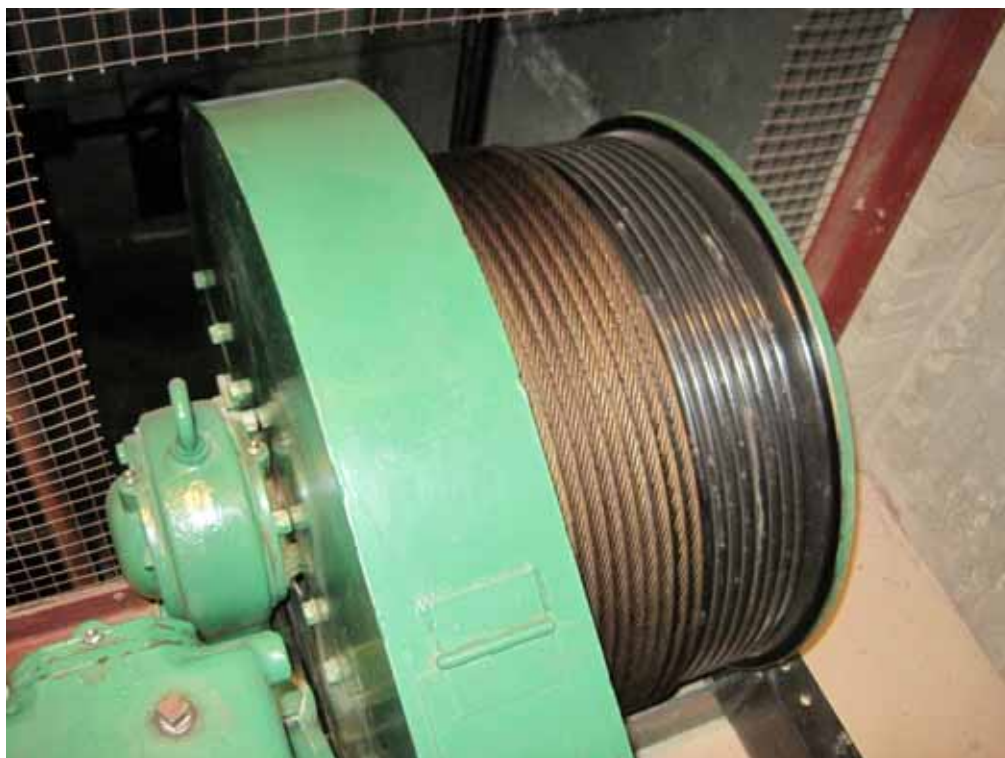
PHOTOGRAPH NO. S11-7721A-06 Conservatory (roof).



PHOTOGRAPH NO. S11-7721A-07 Art gallery area.



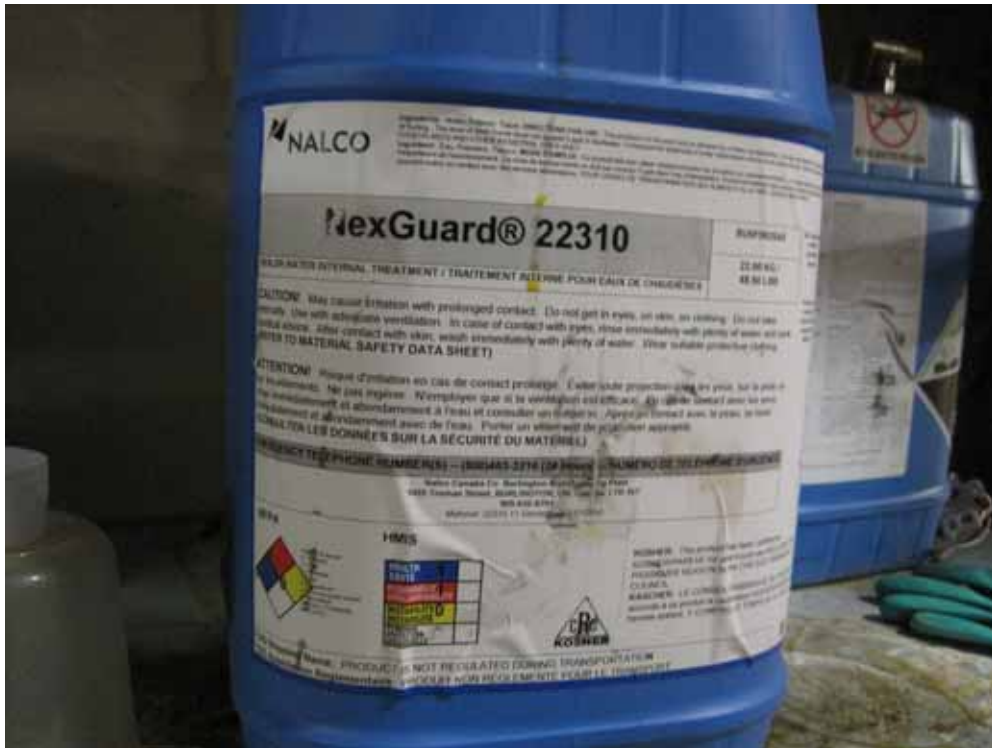
PHOTOGRAPH NO. S11-7721A-8 Storage area.



PHOTOGRAPH NO. S11-7721A-9 Winch for service elevator.



PHOTOGRAPH NO. S11-7721A-10 Natural gas fired boiler system.



PHOTOGRAPH NO. S11-7721A-11 Chemicals used in boiler system.



PHOTOGRAPH NO. S11-7721A-12 Office area in basement.



PHOTOGRAPH NO. S11-7721A-13 Meeting room in basement.



PHOTOGRAPH NO. S11-7721A-14 Shakespeare on the Saskatchewan site.



PHOTOGRAPH NO. S11-7721A-15 Washrooms.



PHOTOGRAPH NO. S11-7721A-16 Temporary tents.



PHOTOGRAPH NO. S11-7721A-17

Pan taken near Spadina exchange, facing southeast to southwest.