

MEMORANDUM

February 14, 2011

TO: Jericho Park Synthetic Turf Field Community Advisory Group

FROM: Park Development Manager

CC: Acting Director Planning and Operations

SUBJECT: Jericho Park Synthetic Turf Field Project Summary

Below is a range of information about this capital project. A map that indicates the project in its context is attached as Appendix 1 to this memorandum.

BACKGROUND

There are 9 synthetic turf fields in the City of Vancouver available to the public at: Eric Hamber Secondary School, Point Grey Secondary School, Vancouver Technical School, Andy Livingstone Park (2 fields), Trillium Park (2 fields), Memorial South Park, and at Jericho Park.

The amount of play accommodated on one synthetic turf field is approximately equivalent to 4 or 5 natural turf fields, and for this reason, synthetic fields are desired by the field sport users and the Park Board to maximize the availability of all fields for both practices and games. Present capital costs for one synthetic turf field, including the high mast field lights, ranges from \$2.2 to \$3.0 million dollars (dependent on site conditions). The benefits for the high capital investment are the increased hours of use possible due to the resiliency of the turf, the lower maintenance costs compared to natural grass fields, and the great reduction in the amount of land needed to accommodate sport user groups needs throughout the City.

In 2002, the Park Board approved the Vancouver Field Sport Federation's Field Renewal Plan that was prepared in cooperation with the Vancouver Board of Parks and Recreation and the Vancouver School Board (VSB) staff. The Field Renewal Plan included a recommendation that 6 new synthetic turf fields be constructed by 2011 to meet the increasing demand for outdoor field sports and to reduce the significant wear of grass fields. In 2010, with the installation of 4 new fields at: Memorial South Park, Trillium Park and Jericho Park, this plan is complete.

PLANNING AND APPROVAL PROCESS FOR THE JERICHO PARK SYNTHETIC TURF FIELD

In 2003, 58 potential sites for synthetic turf field locations, including **Jericho Park**, were identified for public consideration at a City-wide forum.

In 2004, a synthetic turf site selection report was prepared by staff and adopted by the Park Board. This report identified "must have" and "desirable criteria" for locating synthetic turf fields, and recommended a shortlist of project sites for synthetic turf field development at Churchill Secondary School, Point Grey Secondary School, Prince of Wales Secondary School, Vancouver Technical Secondary School, and at Killarney Park. The project sites were recommended following open houses held at each of these locations and also based upon detailed technical assessments of each of these five sites. Fields were constructed at Point Grey Secondary School (2006) and at Vancouver Technical School (2008) following this process.

In keeping with the Field Renewal Plan, The Park Board identified \$5.5 million in funding in the 2008-2011 Capital Plan to invest in two new synthetic turf fields. \$1.0 million in additional funding became available in December 2009 from the Federal Government's Recreation Infrastructure Canada (RInC) grant program to supplement the City funding available for two synthetic turf field projects. The grant funding came with time restrictions where the projects had to be completed by March 31, 2011 or the funding would be in jeopardy.

In January 2009 the Board approved Memorial South, Rupert, and Beaconsfield Parks as potential sites for synthetic turf playing fields. At this time the Board expressed concern that there were no sites west of Main Street to serve the large number of players living west of Main Street, on this short list. In September of 2009 the Board's Planning Committee endorsed the addition of **Jericho Park**, Prince of Wales Secondary School, and Queen Elizabeth Elementary School (often referred to as the "Camosun" site) subject to these sites being supported by the VSB.

Between September 23 and October 1, 2009 Park Board staff hosted 4 open houses to gather public input on the 4 park sites under consideration (Beaconsfield, **Jericho**, Memorial South and Rupert Parks).

In October 2009 the VSB Planning and Facilities Committee supported the inclusion of Prince of Wales Secondary School as a 5th candidate site, and on November 2009 an Open House was hosted to gather input on this site.

On February 5, 2010 the Park Board approved the installation of synthetic turf play fields at Jericho Park and at Memorial South Park. On the west side, **Jericho Park** was the recommended site because it was the only previously short listed site that could be completed by the March 31, 2011 deadline. The Prince of Wales Secondary School could not be completed by the deadline because the site requires VSB approval and a

legal agreement between the Park Board and VSB. These steps would be likely to add several months to the project timetable.

In March 2010 an Open House was held to present the final plans for development of a synthetic turf field with high mast field lights at **Jericho Park**. Although public notification for this event followed the standard process of a mail out to residents and posting on the City's website as is done for all Park Board Projects, the mail out did not specify that high mast field lights were a key component of this project. 20 residents attended this meeting, dominantly the field users. At the meeting, some concerns were heard about the visual impact of the light poles and the lamp poles were lowered by 10', from 70' to 60', to respond to the concern. The poles could not be lowered further; otherwise additional poles would be required and light spill would be greater.

In May of 2010, concurrently with developing detailed designs and tendering the project for construction, Park Board staff applied for a Development Permit (DP) and a Building Permit (BP) for the high mast field light component of the project from the City's Development Services Department.

On August 25, 2010 the City's Development Services staff delivered a Development Permit application mail notification to 353 residents about the field lights. Only 9 residents responded by mail or email by the September 10, 2010 due date. Recently, some residents have expressed concern that the address for the project at 3941 Point Grey Road created confusion. This is the legal address for Jericho Park.

On October 1, 2010 Development Services staff sent a follow up letter to a smaller re-notification area, advising that the DP was issued, and that **the Park Board is required to hold a follow-up public meeting with the neighbourhood in 30 days of the first use of the lights.** Upon issuance of the DP, technical details were provided by the consultants and contractors to Development Services, and a BP was approved. An Electrical Permit was still required to complete the field light installation.

The field lights were installed prior to the issuance of the DP, due to a verbal indication that permits were forthcoming and due to the tight timelines for the project and weather sensitivity of the installation. If the permit was not issued, the lights would have been removed.

The standard communication processes for this project offered by the Park Board and by Development Services, was not sufficient for this project and residents were not adequately informed. This factor is an ongoing concern for local residents and the Park Board. For this reason two additional public open houses were held by the Park Board, a Community Advisory Group was formed, and the Park Board has committed to improve future project processes.

On October 28, 2010 Park Board Planning and Operations staff hosted a public open house to listen to and document concerns related to the project. All residents who have expressed an interest in the project were invited by email directly to this meeting; a notice

was placed on the Park Board web site, and on face book.

On November 16, 2010 a third Open House was hosted by the Park Board General Manager. At this meeting a Community Advisory Group formed to work with staff on the field opening and operations.

COMMUNITY ADVISORY GROUP

The Community Advisory Group is a forum for representatives of the local community and stakeholders to discuss operational components, potential concerns relating to field use, and opportunities for reducing the impact that users of Jericho Park Synthetic Turf play field have on the surrounding neighbourhood and natural areas. The Advisory Group will assist the Park Board to see that the field is eventually opened for evening use and operated in a manner which best represents the varied interests of the local community and stakeholders impacted by the facility.

This Community Advisory Group is not a forum for investigating or planning the removal of the field or lights from the park.

The Advisory Group is meeting frequently, and the outcomes of the discussions with the group are provided to individuals on the "master list" of interested stakeholders, which includes every person who has provided an email address at a public meeting on the subject, or sent a personal email note to the Park Board, since September 2010. A lighting demonstration is to be scheduled early in 2011 when the hydro connections for the field are completed in order to fine tune the light installation to best suit its context and residents living in proximity to the new facility.

TECHNICAL INFORMATION

The total budget for this project is \$2.75 million and includes 1/3 funding from the Recreational Infrastructure Canada (RInC) program and 2/3 from Park Board Capital Plan 2009-2011.

The project is facilitated by Park Board staff in conjunction with consultants and contractors with experience in synthetic turf fields, hired through competitive bidding processes. Durante Kreuk Ltd., is the project Landscape Architect and contract administrator, DMD Associates is the electrical consultant for the field lights, JS Ferguson Construction Inc, is the civil works contractor responsible for construction, and AstroTurf is the synthetic turf supplier.

The details of this project include a 70m x 110m synthetic turf soccer field with a high mast field lighting system, which replaces a former grass rugby field east of Discovery Road in Jericho Park. An existing gravel rugby field with old generation sport field lights is nearby, west of the Jericho Arts Centre. Associated works include a concrete perimeter path, landscaping, 2 new renovated tennis courts and the removal of a tennis court, a renovated rugby field and a new softball diamond. The synthetic turf product consists of

a synthetic turf 'carpet' on top of an imported gravel base and PVC field drainage system, over a compacted sand bed. The field drainage system is connected to the park drainage system, which outlets in the Burrard inlet north of the parking lot on site. The drainage system is similar to all natural and synthetic turf field drainage systems City-wide. The project construction is now substantially complete with the exception of the field lights.

The field users will be local youth, adults, community groups, schools and community sports leagues and other organizations, and the field will see its main use after 5:00pm on weekdays and all day use during the weekends year-round. There are existing washrooms in the field house across Discovery Street. Worth note is that no amplified sound system is to be provided or utilized. Approximately 50 parking stalls are needed for the field users, and these are available in the existing parking lot on site.

The high mast field lights are a state-of-the-art lighting installation consisting of four sports lighting poles with sports lighting lamps by Musco Sport lighting. The lamps are equipped with spill and glare control devices (“hoods”) to maximize light on the field of play and minimize obtrusive light impacts/spill in the adjacent neighborhood. The lighting level is anticipated to be a maximum of 370 lux to meet the minimum light level recommendations of the Illuminating Engineers Society of North America (IESNA) for the type of sport and level of play anticipated. The poles are a high mast system that will allow more directed light onto the fields and reduce “spill” lighting to adjacent areas. Fields are lit to accommodate both game play and recreational play and similar lighting systems have been installed by the Park Board at Point Grey and Vancouver Technical schools with a favorable response from the community.

Users pay for the use of the fields and restricting the hours for lighting lowers the number of hours the field can be utilized. Lowering the number of hours that the field can be utilized lowers the return on the funds invested in the construction of the field and puts additional pressure on grass fields. There is an option for flexible lighting levels with a high level for game play only and a reduced level for practice times that is being considered.



Figure 1– Typical Class IV Soccer Field with LSG Fixtures as proposed for Jericho Park (note no spill light on ground beyond field perimeter).

Jericho Park includes a range of vegetation areas and types, and a range of habitats that support wildlife, including an old field shrub area in the eastern portion of the park, and a young mixed deciduous forest stand in the south portion of the park. A number of efforts are being made with respect to the environment in this project. The Jericho Stewardship Group, a local organization that works with the Park Board to effectively manage the park for wildlife benefits, has given input to staff about this project. The field was initially proposed to be located adjacent to the old field shrub area, an area of high environmental sensitivity, but was relocated, based on input from the Stewardship Group, to the western portion of the site adjacent to Discovery Road, away from the old field area. The area south of field is seeded with “Old Field” grass mix and it will be rough mown 2 times a year to support wildlife diversity, and to create a valuable and fairly rare habitat type or certain birds and mammals. A more detailed habitat study, that includes a review of the impacts of the high mast field lights and the resulting night glow on wildlife, and a review of the impacts of field users on wildlife, will be completed early in 2011 by an independent Registered Professional Biologist. This report will provide recommended site improvements to mitigate any impacts on wildlife from the project.

Residents have expressed concerns about human health and synthetic turf fields. In addition to Park Board previous research of this subject, The Chief Medical Health Officer has provided a letter to a Community Advisory Committee Member to respond to this concern. The letter indicates that "Based on a review of Consumer Product and Safety Commission (CPSC) findings, the Medical Health Officers in Vancouver Coastal Health, Fraser Health, and the BC Centre for Disease Control determined that there was no need for a local study, and that the health risk associated with exposure to lead in artificial turfs is low. As such, there is no health rationale to remove and replace existing artificial turf fields." This letter is attached as Appendix 2 to this memo for information.

Additional scientific studies or testing are beyond the scope of this project.

Should you require additional information about this project, please contact Tiina Mack, Park Development Manager, at 604.257-8471.

Appendix 1 – Jericho Park West Site Plan



Jericho Park Synthetic Turf Playfield - Context Map

Scale 1:750
Open House • March 25, 2010



Appendix 1 – Jericho Park West Site Plan



Office of the Chief
Medical Health Officer

#800-601 W. Broadway
Vancouver, BC V5Z 4C2

December 3, 2010



Re: Health concerns with synthetic turf fields

Mayor Gregor Robertson and members of Vancouver Parks Board have asked me to respond to your e-mail of December 2, 2010 where you expressed concern about potential health risks to children associated with synthetic turf fields.

In 2008, Vancouver Coastal Health, Fraser Health and the BC Centre for Disease Control undertook a review of the evidence of health risks associated with synthetic turf fields. This was based on the knowledge that there are chemicals, such as lead chromate, present in the fibers of some turf fields that may be of concern. We proposed undertaking a local study of the potential risk of exposure to chemicals found in synthetic turf fields in greater Vancouver.

However, in July 2008, the Consumer Product and Safety Commission (CPSC) in the United States released their assessment of the potential for lead exposure from synthetic turf fields, using a methodology nearly identical to the one proposed for our local study. The conclusion of their study, which examined the potential for ingestion of particles from the field and resulting lead levels, was that the potential for exposure was very low. All estimates of potential exposure levels were well below known levels of concern for health. This study was an improvement from previous reports that only analyzed the presence of lead in turf but not an estimate of the potential for exposure. The New York Times article appended to your letter also references chemicals found in turf fields, but fails to note the low potential for exposure.

Based on a review of the CPSC study findings, the Medical Health Officers in Vancouver Coastal Health, Fraser Health and the BC Centre for Disease Control determined that there was no need for a local study, and that the health risk associated with exposure to lead in artificial turfs is low. As such, there is no health rationale to remove and replace existing artificial turf fields. We agree with Parks Board recommendations that users of these fields be encouraged to wash their hands and wipe their shoes after playing on the fields.

Thank you for the opportunity to respond to your concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Patricia Daly'.

Patricia Daly MD, FRCPC
Chief Medical Health Officer