OUTDOOR ENVIRONMENTS FOR FULL-DAY KINDERGARTEN

“I can do all this through Him who gives me strength.”
Philippians 4:13 (NIV)

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<th>Created, Draft</th>
<th>First Tabling</th>
<th>Review</th>
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<td>March 27, 2014</td>
<td>April 10, 2014</td>
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M. Puccetti, Superintendent of Facilities
C. Fernandes, Superintendent of Early Learning Strategy

RECOMMENDATION REPORT

Vision:
At Toronto Catholic we transform the world through witness, faith, innovation and action.

Mission:
The Toronto Catholic District School Board is an inclusive learning community rooted in the love of Christ. We educate students to grow in grace and knowledge and to lead lives of faith, hope and charity.

G. Poole
Associate Director of Academic Affairs

A. Sangiorgio
Associate Director of Planning and Facilities

S. Pessione
Associate Director of Business Services, Chief Financial Officer and Treasurer

Angela Gauthier
Director of Education
A. EXECUTIVE SUMMARY

This report responds to the Trustee motion from the May 9, 2013 Corporate Affairs, Strategic Planning and Property Committee Board meeting, directing staff “to set aside $10,000 for play structures for Kindergarten students”.

The placement of a $10,000.00 play structure at each elementary school would cost an estimated $1.62 M in total. The Board committed, as part of the Capital Program, all available Full Day Kindergarten (FDK) funding allocated by the Ministry of Education. The Ministry has not provided any additional funding for FDK.

The Full Day Kindergarten curriculum focuses on inquiry-based play and outdoor learning. This report provides information and recommendations regarding the strategic selection of appropriate outdoor elements that will enhance the opportunities for children in an inquiry/intentional play-based program.

This report recommends that the FDK Playground Standards outlined in Appendix A be approved.

B. PURPOSE

1. On May 9, 2013, arising from a motion regarding the FDK Renovation Contracts for St. Brigid and St. Thomas Aquinas Catholic Elementary Schools, as presented to Corporate Affairs, Strategic Planning and Property Committee, staff were to provide the following information and undertake the following action:

   Staff were directed to advise Trustee Rizzo

   1. The number of students affected by the retrofit at St. Thomas Aquinas;
   2. Set aside $10,000 for play structures for Kindergarten students.

2. This report provides information regarding implementation of Item 2 of the above motion, and recommends an alternative approach which is in keeping with Full-Day Kindergarten (FDK) program focus on an inquiry-based approach, with an emphasis on outdoor learning. Since students are now spending the entire day at school, it is essential that the outdoor spaces be suitable for the intentional play-based learning which is a fundamental part of the program. This report addresses the requirements and opportunities for creating suitable outdoor environments for FDK.
C. BACKGROUND

1. In October 2009, the Ministry of Education (EDU) announced the FDK program for four and five year olds. A standard funding allocation of $10,000.00 for every FDK classroom was provided for “First Time Equipping and Minor Retrofits” to be used as the Board sees fit to ready the classrooms to accommodate the full-day curriculum and the increased average class size of 26 (effective maximum of 30). Today’s Full Day Kindergarten rooms service the needs of the same group of children for the whole day as opposed to half days as in the past. The longer day as well as the increased class size, created a need for re-purposed and/or additional space in many schools, for which EDU provided Capital funding for retrofits and additions based on needs identified by the school boards.

2. Capital funding for additions and retrofits for FDK has been announced by EDU annually over the five-year implementation period for the program following a formal school-by-school review of needs – retrofit or an addition, or a combination of the two. A standard amount was provided for each retrofit and each additional room identified by the review. However, the Ministry permits Boards to pool FDK funds and re-allocate finds between projects as required to address all FDK-related Capital needs. Costs for additions to schools typically are expected to be greater than the (individual school) funding provided.

3. Expenditures funded by EDU for FDK are audited and must be directly related to the implementation of the FDK program. Exterior work is not excluded from eligibility for FDK funding, provided it meets the test of “directly related to the implementation of the FDK program.” Ministry Approval to Proceed must be obtained for all projects with an estimated project cost greater than $250,000.00 prior to issuing tenders for construction. A majority of the projects approved to date include some exterior work, to create or upgrade an FDK playground, primarily involving fencing, re-surfacing and some tree planting.

4. The following is a summary of the FDK Capital funding provided to the TCDSB by the Ministry of Education:

<table>
<thead>
<tr>
<th>Capital Program Phase 1 and 2</th>
<th>Total:</th>
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<tr>
<td>Additions and new schools:</td>
<td>$18,432,852</td>
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<tr>
<td>Year 2 FDK:</td>
<td>$224,103</td>
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<tr>
<td>Year 3 FDK:</td>
<td>$5,216,084</td>
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<tr>
<td>Year 4 FDK:</td>
<td>$17,037,337</td>
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<td>Year 5 FDK:</td>
<td>$27,115,763</td>
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<tr>
<td><strong>Total:</strong></td>
<td><strong>$68,026,049</strong></td>
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5. The Ministry has not indicated whether FDK funds can be used for a play structure – however the Ministry recently responded to an inquiry from TCDSB staff with regards to allocation of current FDK funding, as follows:
- FDK funding is for FDK purposes only and it is a requirement that be spent on capital.
- Any expenditures need to tie back to an FDK project.
- The Ministry is providing no more additional funding. It is up to the board to manage their FDK needs.
- The board will need to defend their FDK expenditures to their external auditors.

D. EVIDENCE/RESEARCH/ANALYSIS

1. The Full Day Kindergarten Program supports the creation of environmentally responsible citizens as described in *Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in Ontario Schools* (2009a) Ontario Ministry of Education:

   “Ontario’s education system will prepare students with the knowledge, skills, perspectives and practices they need to be environmentally responsible citizens. Students will understand our fundamental connections to each other and to the world around us through our relationship to food, water, energy, air, and land, and our interaction with all living things. The education system will provide opportunities within the classroom and the community for students to engage in actions that deepen this understanding.”

2. In the Ontario Ministry of Education *Full-Day Early Learning – Kindergarten Program Curriculum Document – Draft Version* 2010-1, several references to the need for outdoor spaces are made:

   p. 17: **Integration of the Arts Across the Program**
   
   “The outdoor world provides an abundance of resources and materials for supporting learning through the arts. Children can discuss the lines, shapes or textures that they have observed in a field, a local park, or school yard. They can listen for different sounds in the environment and watch how animals move, and then imitate the sounds and movements in music and dance activities.

   p. 36: **Use of Space**
   
   “When planning for the use of space in the classroom and outdoors, Early Learning-Kindergarten teams should . . . use appropriate spaces for a range of activities in the outside play area (e.g. planting, water play, gross-motor activities, science and technology investigations);”

   p. 43: **Environmental Education**

   “The learning environments for early learning include the school yard, fields and trails in the vicinity of the school, and various other outdoor venues. Teaching children to appreciate and respect the environment is an integral part of being active in these spaces . . . To facilitate these connections, Early Learning-Kindergarten teams are encouraged to take children out of the classroom and into the world beyond the school to help them observe, explore, and appreciate nature.”
Science and Technology

“To meet the needs of these inquisitive children, the learning environment must be active, hands-on, child-centred, and inquiry-based.”

Overall Expectation 1: demonstrate an awareness of the natural and built environment through hands-on investigation, observations, questions, and representations of their findings.

Overall Expectation 2: conduct simple investigations through free exploration, focused exploration, and guided activity, using inquiry skills . . .

Overall Expectation 3: demonstrate an understanding of the natural world and the need to care for and respect the environment.

Learning outdoors extends beyond the FDK day for students involved in the before or after school program. “Time spent each day in the school gymnasium or out in the school playground is essential to the development of gross- and fine-motor control, strength, coordination and balance”. p.9 in FDK Extended-Day Program, 2010-11, EDU


p. 7: These guidelines . . . describe a new design approach that draws on knowledge of how physical space and natural features can stimulate healthy early child development. . . These guidelines capture the experience of many years of playground planning, design, and construction work at the TDSB, and they draw upon the lessons learned from Evergreen’s fifteen years of transforming Canadian school grounds into diverse, nature-filled learning environments.”

p. 9 “The richer the network for play environments, the more opportunities children have to build their self-esteem, confidence, resilience, perseverance, and creativity – all attributes of healthy child development.” (Richard Louv, Last Child in the Woods)

p. 16 “It is important to remember that for safety reasons early year - kindergarten children are often segregated from the rest of the students in a fenced-off area of the school ground, limiting their hands-on experiences to a smaller area for play. It is therefore essential that these areas are designed in ways that provide daily access to nature, support children’s natural curiosity, inspire creativity, and incorporate a number of opportunities for healthy development and play-based learning.”

E. METRICS AND ACCOUNTABILITY

1. TCDSB Facilities staffs, in consultation with Early Learning staff and the Board’s Evergreen consultant, have developed FDK playground standards based on the educational, environmental and health and well-being goals noted above. These standards are detailed in Appendix A and address the following Nine (9) Preferred Elements: security; minimum area; shade; variety of surfaces; access to nature; seating, water;
storage; and room to run. As well, Appendix A lists 10 additional elements to be provided subject to available budget and input from principals, teachers and parents.

2. Detailed guidelines and typical details for implementation are provided by the Evergreen/TDSB Design Guide for Early Years – Kindergarten Play-Learning Environments, Second Edition 2013, entitled Landscape and Child Development. As well, the TCDSB Greening Committee is developing updated site greening standards and specifications based on lessons learned from school greening projects.

3. Work in the FDK playground for retrofit projects will depend on the existing conditions and available budget, but typically will include Preferred Elements 1 to 4, plus # 9, as far as conditions will allow, typically to a lesser extent than for new construction. Based on cost estimates and tender results to date for Year 5 retrofits and additions, a budget amount for further enhancements to all sub-standard FDK playgrounds should be developed and electronic surveys sent to schools to select candidates for further work. This work should be designed and tendered by summer 2014 and completed by fall 2014 to utilize FDK funding.

4. Staff will undertake a needs survey of the existing FDK facilities system wide, to review where there may be a need for additional interior and/or exterior work, in particular for the Year 1 FDK schools, which were not funded with the exception of minor retrofits (addition of cubbies and fencing). Any funds remaining upon completion of FDK Capital program should be diverted to address any additional FDK interior or exterior upgrades.

F. STAFF RECOMMENDATION

1. That the motion from May 9, 2013 Corporate Affairs, Strategic Planning and Property Committee, directing staff to set aside $10,000.00 for play structures for Kindergarten students be rescinded pending identification of available funding for play structures;

2. That the FDK Playground Standards outlined in Appendix A be approved and adopted for implementation.

3. Any funds remaining upon completion of FDK capital program should be diverted to address any additional FDK interior or exterior upgrades, based on a system wide needs assessment.
Appendix A - TCDSB FDK Playground Standards - Additions and New Schools and Existing Schools as Conditions Permit

Preferred Elements - Every FDK playground for a new school or FDK addition should have:

1) **Security** - fenced area directly accessible from FDK cubby area (access may be shared between 2 or more FDK rooms) – location should also facilitate parent/bus drop-off/pick-up into/from the area, including before and after regular hours for Before-and-After Child Care.

2) **Area** – minimum equivalent to total classroom area at 90 sq.m. each, i.e. 3 sq.m. per child, target Day Nurseries Act requirement of 5.6 sq.m. per child or more if possible.

3) **Shade** - provided by trees and/or structures such as building overhang/canopy, pergolas, awnings, etc. Building orientation and playground location should also consider shade in summer, sun in winter.

4) **Variety of surfaces** - at least 2, preferably 3 or more – examples: asphalt, concrete, stone, bricks, mulch, granitic sand, grass (Durolawn rubber matting may be used to reduce compaction), limestone screening, decking, log surfacing - Hard and soft surfaces configured to create pathways (see # 4 above)

5) **Access to nature** – may and usually will be included in #3 and #4, but if not, should not be forgotten as an element – should support children's natural curiosity and inspire creativity

6) **Seating** – can be integrated with the building (such as extended window sills) or planters/sand play edging or stand alone such as tree stump rounds, flat-topped logs, benches, or combination; cedar post sand play edging can be used for seating and for balancing and jumping as well

7) **Water** – provide a hose bib for water play as well as tree/shrub watering

8) **Storage** - accessible from playground (or a vestibule) for outdoor play equipment, tools, etc.

9) **Room to run and ride tricycles** - create pathways as noted in # 4 above. Determine different types of pathways that will accommodate different forms of mobility, for example, looped paths, or a hierarchy of paths with multi-purpose dominant paths for and specialized subordinate paths (trike tracks, sensory trail, goat path)

Additional Elements - Subject to principals’, teachers’, parents’ input and budget:

1) Changes in topography (such as a “grassy knoll,” berm, compacted mulch mound for climbing, rolling and sliding in winter)

2) Sand play area – fairly large with granitic sand (if playground is shared with a child care, this will need a cover and may also need to be smaller for this reason)

3) Outdoor chalkboard or other type of wall/fence mounted surface for writing/drawing, etc.

4) Large clump shrubs where screening needed (for example from a parking lot) or for shade until trees mature

5) Planters for student use

6) “Corduroy bridge” (log surfacing - see # 4 above also)/ rumble strips

7) Logs for climbing and/or balancing, landscaped climbing features

8) Space for schools to add fixed elements such as playhouse, climbing structure, and movable elements such as planters, water table, outdoor musical instruments, etc. etc.

9) Hooks or other storage for backpacks for play after drop-off and before pick-up times (FDK teachers are now using these spaces to combine outdoor time at the beginning and end of the day to reduce the frequency of dressing/undressing children)

10) Pavement painting (for games, to add colour and or instructional purposes)

The above additional elements should not compromise Preferred Element # 9, room to run!

Note: Materials must be non-toxic and plants non-poisonous
OUTDOOR ENVIRONMENTS FOR FULL DAY KINDERGARTEN
Primarily focused on gross motor activity space

- Running (play tag)
- Riding tricycles
- Digging in sandbox

Staff were viewed as supervisors
FDK OUTDOOR CLASSROOMS NOW

Viewed as an outdoor classroom where children:

- investigate
- explore
- experiment
The teaching team shapes children’s thinking by:
- responding,
- extending and
- challenging their learning.
Integrates the following 6 domains:
- Personal and Social Development
- Language
- Mathematics
- Science and Technology
- Health and Physical Activity
- The Arts
Children actively take on the roles of
- Collaborator
- Author
- Illustrator
- Mathematician
- Scientist
- Artist
Educators use the outdoors as a way to explore along with the children by asking open-ended questions to extend and connect learning.

“I wonder what we might see if we turn over the rock”
The learning taking place indoors extends to the outdoors...
... and back into the classroom through writing, illustrations, explanations, pictures, models...
“When planning for the use of space in the classroom and outdoors, Early Learning-Kindergarten teams should . . . use appropriate spaces for a range of activities in the outside play area

- planting,
- water play,
- gross-motor activities,
- science and technology investigations;”

FDELK, 2010
“The learning environments for early learning include the school yard, fields and trails in the vicinity of the school, and various other outdoor venues.

Teaching children to appreciate and respect the environment is an integral part of being active in these spaces . . .

To facilitate these connections, Early Learning-Kindergarten teams are encouraged to take children out of the classroom and into the world beyond the school to help them observe, explore, and appreciate nature.”
To meet the needs of these inquisitive children, the learning environment must be:

- active,
- hands-on,
- child-centred, and
- inquiry-based.
“The richer the network for play environments, the more opportunities children have to build their self-esteem, confidence, resilience, perseverance, and creativity – all attributes of healthy child development.”

(Richard Louv, *Last Child in the Woods*)