PART 1 GENERAL

1.1 Scope of Work

.1 The Contractor is to supply, deliver, and install the playscapes and stand-alone equipment.

1.2 Related Work

.1	All Division 1	Specification Sections
.2	Section <u>01330</u>	Submittals
.3	Section <u>01700</u>	Contract Closeout, Takeover & Warranties
.4	Section <u>01450</u>	Quality Control & Inspection
.5	Section <u>02311</u>	Site Grading
.6	Section <u>02315</u>	Excavation, Trenching and Backfilling
.7	Section 03300	Cast-in-Place Concrete

1.3 Special Instructions

.1 The Contractor shall notify all agencies that may be affected by the installation of services, Work and utility stakeouts. At the Contractor's expense shall obtain all necessary permits, approvals, and locates prior to the commencement of Work, as per Section 02315 - Excavating, Trenching & Backfilling.

1.4 <u>Testing and Samples</u>

- .1 The Contractor is to submit the Consultant samples of all materials to be used under this specification, to a testing laboratory approved by the Consultant for approval of their quality and nature prior to installation.
- .2 The Consultant may require additional field and laboratory tests of the materials during installation to ensure that the materials are satisfactory. This shall be carried out at no extra cost to the Owner.

1.5 **Product Delivery, Storage and Handling**

.1 Store surfacing materials in areas designated by the Consultant.

1.6 <u>Inspection</u>

- .1 Stake out play area as indicated on the Contract Document drawings and obtain approval from the Consultant.
- .2 The entire playground installation shall be inspected by a qualified third party playground equipment inspector for compliance with

CAN/CSA- Z614-14 Annex H, or most current edition within five (5) Working days of the Play Equipment Supplier declaring that the installation of the play equipment and safety surfacing is complete. Third party CSA inspection shall be paid for and arranged by the Contractor.

.3 The Consultant shall be notified immediately of the Work completed and CSA inspection timing. The Consultant will also review the equipment. If there are any deficiencies resulting from the staff or CSA inspection these must be corrected as soon as possible and further inspection(s) shall be completed until a CSA inspection report is acceptable to the Owner.

1.7 <u>Conformance</u>

- .1 All components, equipment and installations shall be in conformance with all contract documents and the current revised edition of CAN/CSA- Z614 07 Annex H Children's Playspaces and Equipment that are Accessible to Persons with Disabilities standard or most current edition.
- .2 Annex H applies to newly designed, constructed, renovated, or retrofitted playscapes for Children ages eighteen (18) months to twelve (12) years.
- .3 Any reference to specific manufacturers or models is for the purpose of establishing a standard of quality. However, all alternates must be approved by the Owner prior to construction.

PART 2 PRODUCTS

2.1 Wood Components

.1 Wooden posts shall not be accepted.

2.2 <u>Materials</u>

- .1 All structure materials and facilities to conform to the standards outlined in the related Work section of the City of Brampton standard specifications.
- .2 All metal components shall be of galvanized steel or aluminium fabrication and shall be of heavy duty construction. All upright posts shall be metal.
- .3 All plastic components shall be ultraviolet (UV) stable. Colour pigment shall be throughout.

- .4 Play area subsurface drainage structure to be minimum 100 mm diameter perforated P.V.C. drainage pipe embedded in 19 mm diameter clear crushed limestone. Connect to storm sewer system.
- .5 All play area surfaces to be as specified and detailed.
- .6 Metal stairs shall have drainage holes and have no sharp edges or corners exposed. All stair stringers must have folded or rounded edges.
- .7 All rope and netting elements are to be fire resistant and constructed with interior steel cable.
- .8 Tire swings are not permitted.

2.3 Belt Swings

.1 The Consultant reserves the right to choose the seat type on a site specific basis.

2.4 <u>Baby Swings</u>

.1 Shall be a heavy duty belt type swing with chromed safety T-bar.

2.5 Play Equipment & Play Surface Systems

- .1 Poured in place rubber systems: refer to contract documents.
- .2 Engineered Wood Fiber systems:
 - 1. Fibar Playground Surfaces 1-800-342-2721 (http://www.fibar.com/playgrounds)
 - Zeager Bros Inc. Landscape & Recreation Surfaces 1-800-346-8524
 http://www.zeager.com/playgrounds/default.asp
- .3 Tile Drains: 150mm diameter solid and perforated, flexible or rigid PVC pipe conforming to the requirements of OPSS 1840 and 1841 and CGSD41-GP29M. Perforated pipe shall be wrapped in clear stone and filter fabric.
- .4 19" dia. Clear crushed stone for drainage tile bedding shall consist of clean, hard, angular, well graded, durable particles of crushed limestone, free from sand.

- .5 Filter fabric shall be Terrafix 270R as manufactured by Terrafix Geosynthetics Inc. or approved equivalent.
- .6 Concrete for play area edging shall be 30 MPa compressive strength at 28 days, with 5-7% air entrainment, in accordance with CAN3-A23.1 and 2.
- .7 Play equipment: As specified on drawings.

PART 3 EXECUTION

3.1 <u>Installation</u>

- .1 All playgrounds should maintain a minimum of 20 m set back from all adjacent property lines or facilities.
- .2 The Contractor is to layout equipment in accordance with the detailed Contract Document drawings for review by the Consultant.
- .3 The Contractor shall ensure that no edges, points, projections or exposed fasteners shall be accessible to cut or cause injury to the public.
- .4 All fasteners shall be secured to discourage unauthorized loosening, tampering or removal. All fastening hardware shall not be over tightened to the extent that the adjacent metal is cracked or damaged. Such damage shall be replaced at the Contractor's expense.
- .5 The Contractor shall remove existing subsoil to levels indicated on the drawings or details. Excavated material shall be utilized on site or removed at the Contractor's expense as directed by the Consultant.

3.2 <u>Preparation</u>

- .1 Stake out the play area perimeter and edging and the location, and alignment of all drain tiles for inspection by the Consultant.
- .2 Verify all dimensions in the field and immediately report all discrepancies to the Consultant.
- .3 Play area to be excavated to accommodate concrete edge, granular base and play surfacing system.
- .4 Fine grade sub-grade of play area eliminating uneven areas and

filling low spots and sloping min. 2% of drain to tile trenches. Remove all debris. Sub-excavate soft and unstable areas in subgrade and backfill with approved fill and compact.

.5 Compact finished sub-grade to 95% Standard Proctor Dry Density.

3.3 Play Structure

- 1. Install specified play structure swings and other specified items in the play area as per manufacturer's specifications allowing for surface to be placed in the play area and under the structure. Ensure all Annex H CSA requirements are met or exceeded.
- 2. Install specified benches and trash receptacle posts in the unit paved seating area as directed on site by the Consultant.
- 3. Provide CSA Certification following installation, confirming as-built condition meets or exceeds current Annex H CSA safety guidelines.

3.4 Play Area Edge

- .1 Place and compact granular base for concrete edging to 98% Standard Proctor Density.
- .2 Lay out all Work true to line and level, plumb and true. Accurately place structural supports and members in position and brace securely, to remain plumb and true until forms are removed.
- .3 Confirm that reinforcement, dowels, control joints insert and other built in Work are in place and secured prior to placing concrete.
- .4 Treat formed surfaces in accordance with applicable CSA3-A23.1 clauses. Obtain the Consultant's approval of exposed concrete.
- .5 Install play surfacing in the play area as indicated on the Contract Document drawings and details.

3.5 <u>Inspection & Acceptance</u>

- .1 The Owner shall not be responsible in any way for the project material or Contractor's equipment left on site.
- .2 The Owner will assume responsibility for and maintain the project following the review and written acceptance of the equipment by the manufacturer and issuance of a Certificate of Substantial Performance.

- .3 The Play Equipment Supplier shall provide an as-built drawing showing all equipment, surfacing and border edging to scale in final dimensioned locations. The as-built drawing shall be supplied in AutoCAD and .pdf formats.
- .4 The Play Equipment Supplier shall supply a maintenance kit consisting of: a maintenance manual customized to the equipment provided; touch up paint; extra specialty fasteners and any tools for tamper proof fasteners for each playground structure. Provide a list of any specialty part available only from the equipment manufacturer.

3.6 <u>Clean Up</u>

- .1 The Contractor is to dispose of all rubbish and surplus materials and leave the site in a neat and presentable condition, prior to Substantial Performance:
- .2 Restore all surfaces used to access the site to their original condition. All sodded areas which have been damaged or disturbed are to be made good.

3.7 Warranty

- .1 The Play Equipment supplier shall supply a warrantee certificate and supporting information for all components, including start date of warrantee which shall commence on Owner's date of Substantial Performance Acceptance. As outlined in Section 01700 Contract Closeout, Takeover & Warranties.
- .2 All workmanship and material shall be guaranteed for a period of two (2) years, from the date of Substantial Performance Certificate of the project and all Work must be performed to the satisfaction of the Consultant.
- .3 Warranties for specific items installed under this Contract beyond that of the two (2) years shall be clearly identified in the required operation manuals submitted for each project.
- .4 The Contractor will be responsible for the cost of replacements at each site of components prior to Substantial Performance certificate.

END OF SECTION - 02881