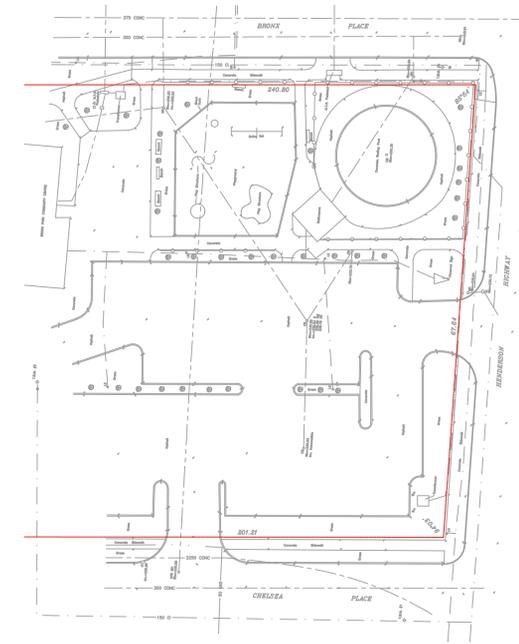




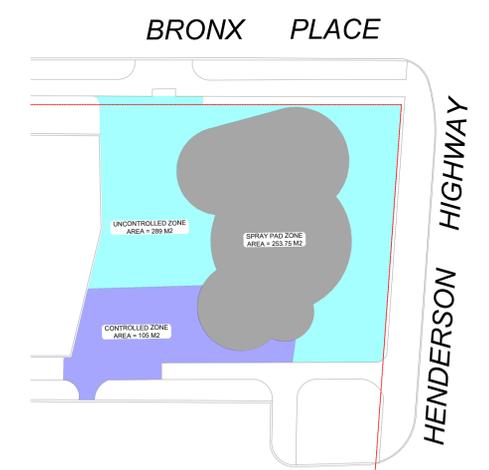
PLAN GRADING 1:100

LEGEND

	CONCRETE
	GRASS
	ARTIFICIAL TURF



KEY PLAN EXISTING CONDITIONS 1:500



KEY PLAN PROPOSED DRAINAGE PATTERNS 1:300

- Construction Specifications**
- Construction must conform to the City of Winnipeg, *Standard Construction Specifications* and all references contained herein refer to these specifications. "SD" refers to City of Winnipeg standard details.
 - All materials used for construction must conform to City of Winnipeg, *Approved Products for Underground Use Within the City of Winnipeg* except as indicated otherwise.
 - Water Service to CW-2110**
 - All water services to be saddle connection installed according to CW2110, SD-012.
 - Copper water service shall be in accordance with AWWA C800 and ASTM B88M, Type K, seamless water tubing.
 - Use Class 'B' Bedding where required according to SD-001.
 - For backfilling, refer to SD-002 as follows:
 - Class 'S' Backfill in landscaped & untraveled areas
 - Class 'Z' Backfill in gravel, hard-surfaced & traveled areas
 - Gravity Sewers to CW-2030**
 - All WWS service installation shall be in accordance with CW 2030/2130, SD-014
 - 150mm WWS service pipe shall be in accordance with CAN/CSA B182.2 and ASTM D3034, SDR-35
 - All pipe installations through road right of way shall be completed with trenchless methods. Any open trench construction on site shall be as follows:
 - Class 'B' Bedding to SD-001
 - Backfill to SD-002: Class 'Z' in gravel, hard-surfaces, and traveled areas; Class 'S' in landscaped and untraveled areas.
 - To CW2030/2130, Detail SD-014
 - Wastewater Flow Generation:**
 - Spray equipment is design-build by other. Spray features to be sequenced to provide max flow rate of 40-60 US GPM.
 - General Notes**
 - "HP" means high point.
 - Contractor to obtain all necessary permits.
 - Contractor to obtain clearances from all utilities before excavating. Confirm all existing infrastructure information in field before construction. Notify the Engineer immediately of any discrepancies that affect installation or design.
 - Confirm all dimensions before beginning construction.
 - Spray pad internal grading by Landscape Architect.
 - This is a combined sewer district.
 - Civil design to be read in coordination with architectural, structural, building plans, and geotechnical report where appropriate. Contractor is responsible to report any discrepancies to the Engineer or Project Manager.
 - It is the understanding of the engineer that the Bronx Spray Pad will not be subject to additional stormwater management measures, on the condition that the site C-value is not increased, and uncontrolled area is not increase. Based on the analysis on the pre and post surface conditions, these conditions are met.

Catchment	Area Takeoff - Pre Development			
	m2	acre	C	% Area
C1: Asphalt & Concrete	86	0.02	0.90	56.4%
C1: Roof	31	0.01	0.95	20.2%
C1: Gravel	0	0.00	0.50	0.19
C1: Landscaping *	36	0.01	0.15	23.4%
UNC: Asphalt & Concrete	342	0.08	0.90	69.1%
UNC: Roof	0	0.00	0.95	0.62
UNC: Gravel	0	0.00	0.90	
UNC: Landscaping	153	0.04	0.15	30.9%
Summary			Weighted C	Overall C
Catchment 1	152	0.04	0.73	23.5%
Uncontrolled	495	0.12	0.67	76.5%
Subtotal	647	0.2	100.0%	0.68

Catchment	Area Takeoff - Post Development			
	m2	acre	C	% Area
C1: Asphalt & Concrete	52	0.01	0.90	49.9%
C1: Roof	0	0.00	0.95	0.45
C1: Gravel	0	0.00	0.50	
C1: Landscaping *	52	0.01	0.15	50.1%
UNC: Asphalt & Concrete	358	0.09	0.90	66.0%
UNC: Roof	0	0.00	0.95	0.59
UNC: Gravel	0	0.00	0.90	
UNC: Landscaping	185	0.05	0.15	34.0%
Summary			Weighted C	Overall C
Catchment 1	105	0.03	0.52	16.2%
Uncontrolled	543	0.13	0.64	83.8%
Subtotal	647	0.2	100.0%	0.63

* Landscaping includes artificial turf, considered to have similar runoff characteristics to grass.

REGISTERED PROFESSIONAL ENGINEERS
 REGISTERED PROFESSIONAL LANDSCAPERS
 REGISTERED PROFESSIONAL SURVEYORS
 REGISTERED PROFESSIONAL HYDROLOGISTS
 Certificate of Authorization
 7076788 Manitoba Inc.
 o/a Sandbox Design & Consulting
 No. 7281

This is not a legal plan.
 Contours shown are approximated for reference only.
 Whole numbers are millimetres (mm).
 Decimal numbers are metres (m).
 Convert Metric to Standard 1.0m = 3.2808ft
 This plan is prepared only for the Client and may not be used by any other party without written consent.

EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED
1.98	SLOPE DIRECTION	2.98%	HYDRANT	---	CONTOUR
(394.98)	SURFACE ELEV.	(239.45)	CURB STOP	---	PONDING AREA
150 WM	WATERMAIN		VALVE	---	ELEC
250 WWS	WASTEWATER SEWER	250 WWS	WWS MANHOLE	---	ELEC
300 LDS	LAND DRAINAGE SEWER	300 LDS	LDS CATCHBASIN	---	GAS
			LDS MANHOLE	---	COMM
				---	COMMUNICATIONS
				---	TOPO SURVEY POINT

APPROVING AUTHORITY STAMP

NO.	REVISIONS	DATE	BY
2	SUBMITTED FOR TENDER	2024-02-02	KP
1	SUBMITTED FOR APPROVAL	2023-12-20	KP
		YYYY.MM.DD.	

Sandbox
 DESIGN & CONSULTING

DESIGNED BY: KP
 CHECKED BY: DH
 DRAWN BY: KP
 APPROVED BY: DH

HOR. SCALE: AS SHOWN
 VERTICAL: AS SHOWN
 DATE: 2024-02-02
 RELEASED FOR CONSTRUCTION: []



ENGINEER'S SEAL

DEAN SPEARMAN

LOT GRADING PLAN
 BRONX PARK SPRAY PAD
 720 HENDERSON HIGHWAY, WINNIPEG, MB

SHEET OF 1 1
 CAD FILE DRAWING NUMBER 23002-C-R2
 PROJECT CODE 23-002

CONSULTANT DRAWING NO. C1