

**HATCH PATTERNS**

EXISTING	PROPOSED	DESCRIPTION
		EARTH OR GROUND ABOVE PIPE
		SAND OR OTHER FINE MATERIAL
		CONCRETE
		WASHED STONE OR GRANULAR MATERIAL
		INTERLOCKING STONE
		METAL
		GRAVEL OR STONE
		NATIVE BACKFILL OR PREPARED SUBGRADE
		WASTE
		SAND DRAINAGE LAYER
		GRANULAR ROADWAY SUB BASE MATERIAL
		GRANULAR ROADWAY BASE MATERIAL
		GRANULAR DRAINAGE BLANKET
		RE-COMPACTED CLAY
		SAND PROTECTIVE COVER
		STRUCTURAL FILL

**ABBREVIATIONS**

WWS	WASTE WATER SEWER
CS	COMBINED SEWER
LDS	LAND DRAINAGE SEWER
?	PROPERTY LINE
?	CENTER LINE
G.I.S.	GEOGRAPHIC INFORMATION SYSTEM
B.M.	BENCH MARK
TH	TEST HOLE
ELEV	ELEVATION
INV	INVERT
MIN	MINIMUM
MAX	MAXIMUM
SL	STREET LIGHTING
TS	TRAFFIC SIGNALS
ABAND	ABANDONED
BLDG	BUILDING
HSE	HOUSE
CRN	CORNER
OPP	OPPOSITE
C/S OR S/C	CURB STOP
MTS	MANITOBA TELEPHONE SYSTEM
R.O.W.	RIGHT-OF-WAY
WM	WATER MAIN
CULV	CULVERT
MH	MANHOLE
CB	CATCH BASIN
CI	CURB INLET
VERT.	VERTICAL
HORZ.	HORIZONTAL
I.B.	IRON BAR
FIBRE	FIBRE OPTIC
TYP	TYPICAL
X-ING	CROSSING
HYD	HYDRANT
EXIST	EXISTING
N	NORTH
E	EAST
S	SOUTH
W	WEST
W/	WITH
C/W	CONSTRUCTED WITH
CONC	CONCRETE
AC	ASBESTOS CEMENT
VC OR CLAY	VITRIFIED CLAY
CI	CAST IRON
DI	DUCTILE IRON
PVC	POLYVINYL CHLORIDE
HDPE	HIGH DENSITY POLYETHYLENE
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
N.I.C.	NOT IN CONTRACT

**LEGEND**

DESCRIPTION	EXISTING	PROPOSED
PROPERTY BOUNDARY		
FENCE LINE		
LIMIT OF WASTE		
PERIMETER DITCH		
LEACHATE INTERCEPTOR TRENCH		
MAJOR CONTOUR		
MINOR CONTOUR		
CLAY PLUG		
GCL LIMIT		
CELL BOUNDARY		
GEOCOMPOSITE DRAINAGE LAYER		
GCL		
NON-WOVEN GEOTEXTILE		
CULVERT		
ROADWAY		
DISPOSAL CELL BERM		
LANDFILL ACCESS ROAD		
LIMIT OF CONSTRUCTION		
LIMIT OF WASTE CUT		
TOE OF SLOPE		
LEACHATE DIVERSION SWALE		
1.5mm HDPE GEOMEMBRANE (TEXTURED)		
200mmØ HDPE SDR11 PERFORATED		
LEACHATE COLLECTION PIPE		
200mmØ HDPE SDR11 NON-PERFORATED		
LEACHATE COLLECTION PIPE		
TEMPORARY DIVERSION BERM		
TEMPORARY DIVERSION BERM		

**LEGEND**

DESCRIPTION	EXISTING	PROPOSED
WATER PIPE		
FIRE HYDRANT		
VALVE		
CURB STOP		
REDUCER		
COUPLING OR SLIDER		
CROSS		
BEND - 11.25', 22.5', 45', 90'		
TEE		
VERTICAL BEND		
ANODE		
REPAIR MARKER		
PLUG		
SEWER PIPE		
MANHOLE		
CATCH BASIN		
CURB INLET		
JUNCTION		
? DITCH		
CULVERT		
SURVEY BAR		
SURVEY MONUMENT		
TREE - DECIDUOUS		
TREE - CONIFEROUS		
HYDRO		
HYDRO POLE		
LAMP STANDARD		
HYDRO POLE W/STREET LIGHTING		
POLE		
GUY ANCHOR		
M.T.S. POLE		
PEDESTAL OR BOX		
CABINET		
M.T.S., SHAW, OR VIDEON		
TRAFFIC SIGNALS		
TRAFFIC LIGHT STANDARD		
GAS		
STEAM		
FIBRE OPTIC		
FENCE		
EDGE OF PAVEMENT OR GUTTER		
EDGE UNPAVED OR GRAVEL ROAD		
? PROJECTED ?		
LOT LINE		
SIDEWALK - PATHWAY		
EASEMENT		
EDGE OF BUILDING		
MAILBOX		
PARKING METER		
TEST HOLE		
TREE LINE OR BUSH		

**PROFILE**

DESCRIPTION	EXISTING	PROPOSED
WATER PIPE		
HYDRANT TOP		
VALVE		
TEE OR CROSS		
COUPLING OR BEND		
REDUCER		
END OF PIPE		
SEWER PIPE		
UNPAVED GROUND SURFACE		
PAVED GROUND SURFACE - ? PIPE		
GUTTER (NORTH AND WEST)		
GUTTER (SOUTH AND EAST)		
? DITCH (NORTH AND WEST)		
? DITCH (SOUTH AND EAST)		
STRUCTURE		
MANHOLE OR CATCH BASIN		

**FOR TENDER ONLY**  
NOT TO BE USED FOR CONSTRUCTION

**APEGM**  
Certificate of Authorization  
KGS Group  
No. 245

LOCATION APPROVED UNDERGROUND STRUCTURES		B.M. ELEV.
SUPV. U/G STRUCTURES COMMITTEE		CONSTRUCTION COMPLETION DATE: YYYY MM DD
DATE		
NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.		
NO.	ISSUED FOR TENDER	DATE
0	ISSUED FOR TENDER	06/15/17
	REVISIONS	DATE

<b>KGS GROUP</b> CONSULTING ENGINEERS & PROJECT MANAGERS WINNIPEG (204) 896-1209 THUNDER BAY (807) 345-2233	
DESIGNED BY: PKP	CHECKED BY: PKP
DRAWN BY: GEL	APPROVED BY: MP
SCALE: HORIZONTAL AS SHOWN	RELEASED FOR CONSTRUCTION
VERTICAL	DATE: 2017 06 16
	DATE

ENGINEER'S SEAL  
PROVINCE OF MANITOBA  
M. POVEDA QUIROS  
Member  
36273  
CONSULTANT DRAWING NUMBER  
15-0107-014\_JNX

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT  
ENGINEERING DIVISION

BRADY ROAD RESOURCE MANAGEMENT FACILITY (BRRMF)  
DISPOSAL CELL CONSTRUCTION AND  
LEACHATE COLLECTION AND STORAGE (300,000 LITRE) TANK

SHEET 2 OF 44  
CITY DRAWING NUMBER  
1-0400A-D0015-001

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