

**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	WATERMAIN
CULV	CULVERT
MH	MANHOLE
CB	CATCH BASIN
CI	CURB INLET
VERT.	VERTICAL
HORZ.	HORIZONTAL
LB.	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

**LEGEND**

DESCRIPTION	PROFILE		DESCRIPTION	PLAN VIEW	
	EXISTING	PROPOSED		EXISTING	PROPOSED
WATER PIPE			WATER PIPE		
HYDRANT TOP			FIRE HYDRANT		
VALVE			VALVE		
TEE OR CROSS			CURB STOP		
COUPLING OR BEND			REDUCER		
REDUCER			COUPLING OR SLIDDER		
END OF PIPE			CROSS		
SEWER PIPE			BEND - 11.25', 22.5', 45', 90'		
UNPAVED GROUND SURFACE			TEE		
PAVED GROUND SURFACE - ℄ PIPE			VERTICAL BEND		
GUTTER (NORTH AND WEST)			ANODE		
GUTTER (SOUTH AND EAST)			REPAIR MARKER		
℄ DITCH (NORTH AND EAST)			PLUG		
℄ DITCH (SOUTH AND EAST)			SEWER PIPE		
STRUCTURE			MANHOLE		
MANHOLE OR CATCH BASIN			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		

**DRAWING INDEX**

SHEET NUMBER	CITY OF WINNIPEG DRAWING NUMBER	DRAWING TITLE
1	D-13516	DRAWING INDEX, DESIGN NOTES, LEGEND, & ABBREVIATIONS
2	D-13517	ELM PARK ROAD - EDINBURGH STREET TO 110m EAST OF EDINBURGH STREET
3	D-13518	ELM PARK ROAD - 110m EAST OF EDINBURGH STREET TO 196m EAST OF EDINBURGH STREET
4	D-13519	NEWARK ROAD - COTTONWOOD ROAD TO 90m NORTH OF COTTONWOOD ROAD
5	D-13520	NEWARK ROAD - 90m NORTH OF COTTONWOOD ROAD TO WESTMOUNT BAY (NORTH LEG)
6	D-13521	WATT STREET - CHALMERS AVENUE TO 40m NORTH OF UNION AVENUE WEST
7	D-13522	WATT STREET - 40m NORTH OF UNION AVENUE WEST TO HARBISON AVENUE WEST
8	D-13523	HARBISON AVENUE WEST - WATT STREET TO 115m EAST OF WATT STREET
9	D-13524	HARBISON AVENUE WEST - 115m EAST OF WATT STREET TO 265m EAST OF WATT STREET
10	D-13525	HARBISON AVENUE WEST - 265m EAST OF WATT STREET TO 396m EAST OF WATT STREET
11	D-13526	OTTAWA AVENUE - 150m EAST OF BRAZIER STREET TO ROCH STREET
12	D-13527	ROCH STREET - OTTAWA AVENUE TO WINTERTON AVENUE
13	D-13528	WOODVALE STREET - GREENE AVENUE TO LEIGHTON AVENUE
14	D-13529	BRIAR DEL PLACE & CORTON PLACE - WATERMAIN ABANDONMENT AND ASSOCIATED WORKS
15	D-13530	RIEL AVENUE - HYDRANT INSTALLATION BETWEEN DARWIN STREET & ROBERTSON CRESCENT

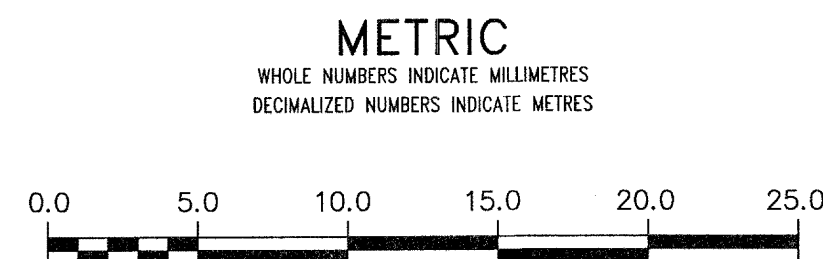
**HATCH PATTERNS**

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



**CONSTRUCTION NOTES**

1. EXPOSE EXISTING WATERMAIN & CONFIRM INVERTS PRIOR TO CONSTRUCTION.
2. LOCATION OF ALL SERVICES TO BE CONFIRMED IN THE FIELD.
3. INSTALL WATERMAIN BY TRENCHLESS METHODS.
4. TRENCHES AND EXCAVATIONS WITHIN 1 METRE OF A PAVED AREA INCLUDING SIDEWALKS SHALL BE CLASS 3 BACKFILL.
5. ALL MATERIALS SHALL CONFORM TO THE CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS.
6. MINIMUM COVER TO TOP OF WATERMAIN SHALL BE 2.4m.
7. REPLACE ALL EXISTING LEAD SERVICES FROM PROPOSED WATERMAIN TO ℄.
8. NOTIFY ALL AFFECTED RESIDENTS AND BUSINESSES 24 HOURS IN ADVANCE OF ANY WATER SHUTDOWNS OR DISRUPTION OF SERVICE.



<p><b>WARNING</b></p> <p>IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:</p> <p>1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.</p> <p>2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.</p> <p>SEE PROVINCIAL REGULATION 210/2 FOR DETAILS</p>	<p>LOCATION APPROVED UNDERGROUND STRUCTURES</p> <p>SUPV. U/G STRUCTURES COMMITTEE _____ DATE _____</p> <p>NOTE:</p> <p>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.</p>	<p>B.M. ELEV.</p> <p>CONSTRUCTION COMPLETION DATE:</p>	<p><b>AECOM</b></p> <p>DESIGNED BY: GK</p> <p>CHECKED BY: <i>[Signature]</i></p> <p>DRAWN BY: JP</p> <p>APPROVED BY: <i>[Signature]</i></p> <p>RELEASED FOR CONSTRUCTION: <i>[Signature]</i></p> <p>SCALE: HORIZONTAL VERTICAL</p> <p>CONSULTANT DRAWING NUMBER: G-1002</p>	<p>ENGINEER'S SEAL</p> <p>PROVINCE OF MANITOBA</p> <p>K.W. FITCHETT</p> <p>REGISTERED PROFESSIONAL ENGINEER</p> <p>March 2014</p>	<p><b>THE CITY OF WINNIPEG</b></p> <p>WATER AND WASTE DEPARTMENT</p> <p>ENGINEERING DIVISION</p> <p>2014 WATERMAIN RENEWALS</p> <p>CONTRACT 2</p> <p>INDEX PAGE</p>	<p>SHEET 1 OF 15</p> <p>CITY DRAWING NUMBER</p>
		<p>NO.</p> <p>REVISIONS</p> <p>DATE</p> <p>BY</p>				<p>DATE</p> <p>DATE</p>