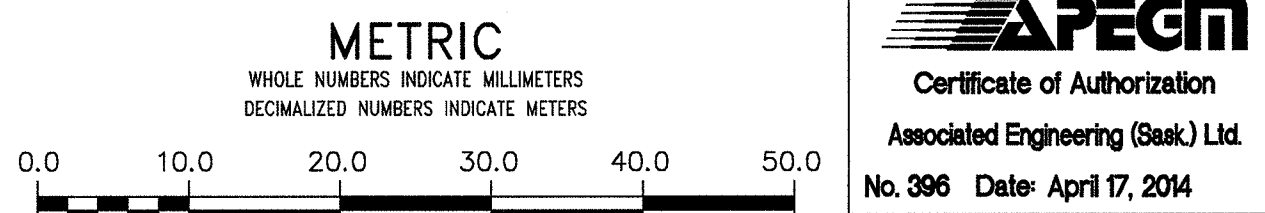


- NOTES:
- CHAINAGES SHOWN ARE ALONG CL OF PIPELINE
  - DESIGN HDD PARAMETERS ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR TO CONFIRM OR DETERMINE ENTRY AND EXIT LOCATIONS, BEND RADII, AND ENTRY AND EXIT ANGLES THAT WILL WORK WITH THE PROPOSED EQUIPMENT AND METHODOLOGY.
  - HDD CONTRACTOR SHALL DETERMINE IF CASING ON THE ENTRY AND/OR EXIT IS REQUIRED, AND INSTALL IF NECESSARY. CASING TO BE SIZED BY THE CONTRACTOR TO ACCOMMODATE THE FINAL REAM PASS.
  - DRILL RIG WITH A MINIMUM OF 300,000 LB PUSH/PULL WITH APPROPRIATE PUMPS AND RECYCLING SYSTEM IS REQUIRED FOR THIS PROJECT.
  - THE PILOT HOLE SHALL BE INSTALLED ALONG THE DESIGN BORE PATH WITH THE DESIGNATED RADIUS OF CURVATURE SHOWN ON THE DRAWING, AND THE ENTIRE BORE PATH SHALL BE WITHIN ±2m RADIAL DISTANCE OF THE DESIGN BORE PATH.
  - CONTRACTOR TO SALVAGE AND DELIVER TO THE CITY BUTTERFLY VALVES REMOVED FROM VALVE CHAMBERS, AND HYDRANT ON THE WEST SIDE OF RIVER.



**WARNING**

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

- NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
- TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.

SEE PROVINCIAL REGULATION 21072 FOR DETAILS

LOCATION APPROVED  
UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE 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.

B.M. ELEV.

CONSTRUCTION COMPLETION DATE: YYYY MM DD

NO.	ISSUED FOR TENDER	REVISIONS	DATE	BY
0	ISSUED FOR TENDER		14-APR-17	MT

**Associated Engineering**

DESIGNED BY CL CHECKED BY JL

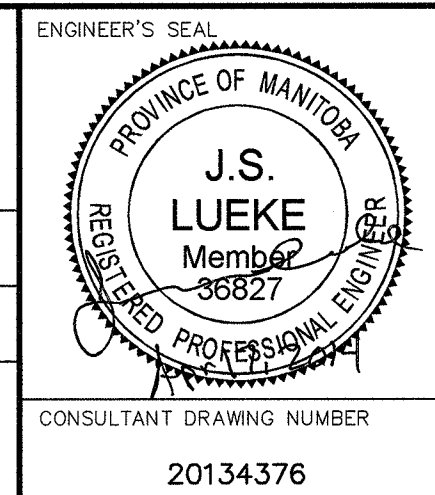
DRAWN BY MT APPROVED BY JL

SCALE:  
HORIZONTAL 1:500  
VERTICAL 1:500

DATE 2014 04 17

PLLOT DATE: 2014 04 17

RELEASED FOR CONSTRUCTION



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

**NORTH KILDONAN FEEDERMAIN REPLACEMENT**  
HDD PLAN AND PROFILE  
**RED RIVER CROSSING**  
STATION 1+39 TO 4+65

SHEET 2 OF 8  
CITY DRAWING NUMBER  
D-13508

BID OPPORTUNITY: 329-2014  
CONTRACT NUMBER:  
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