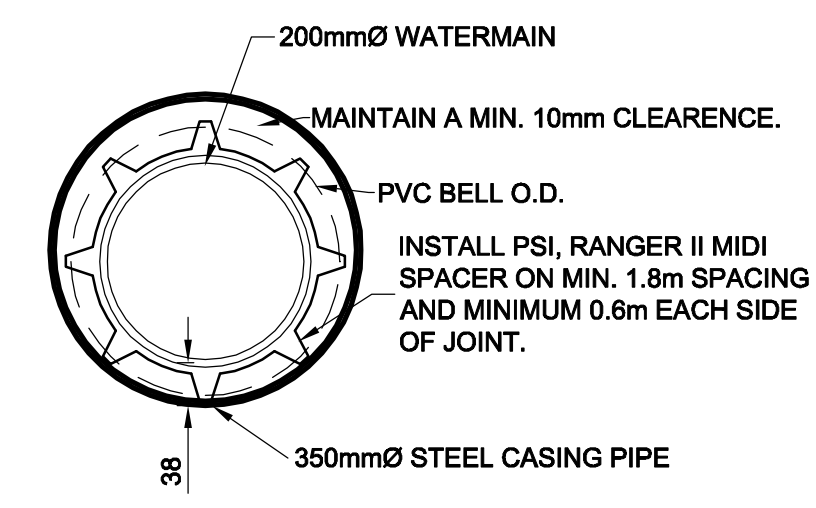
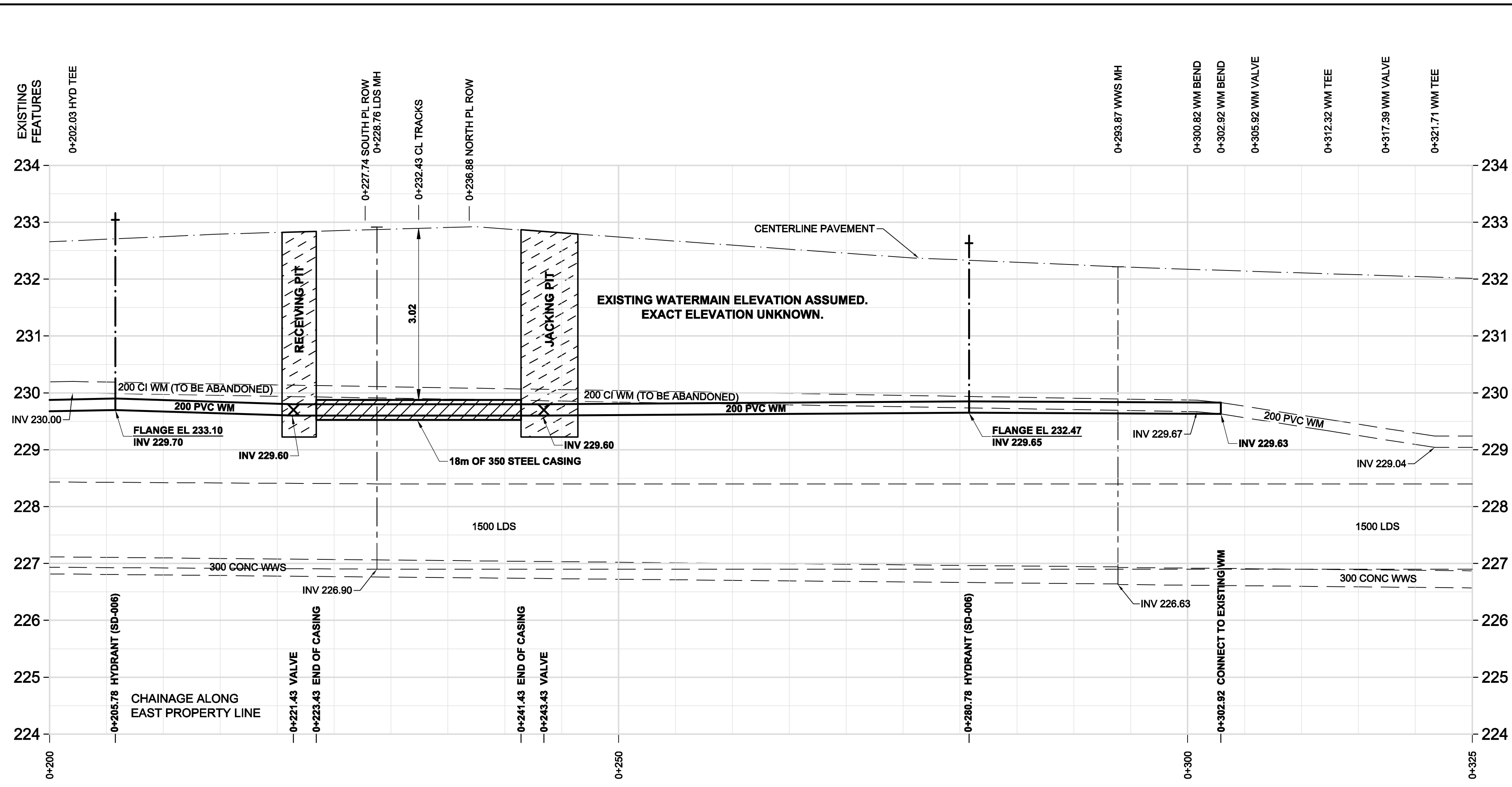


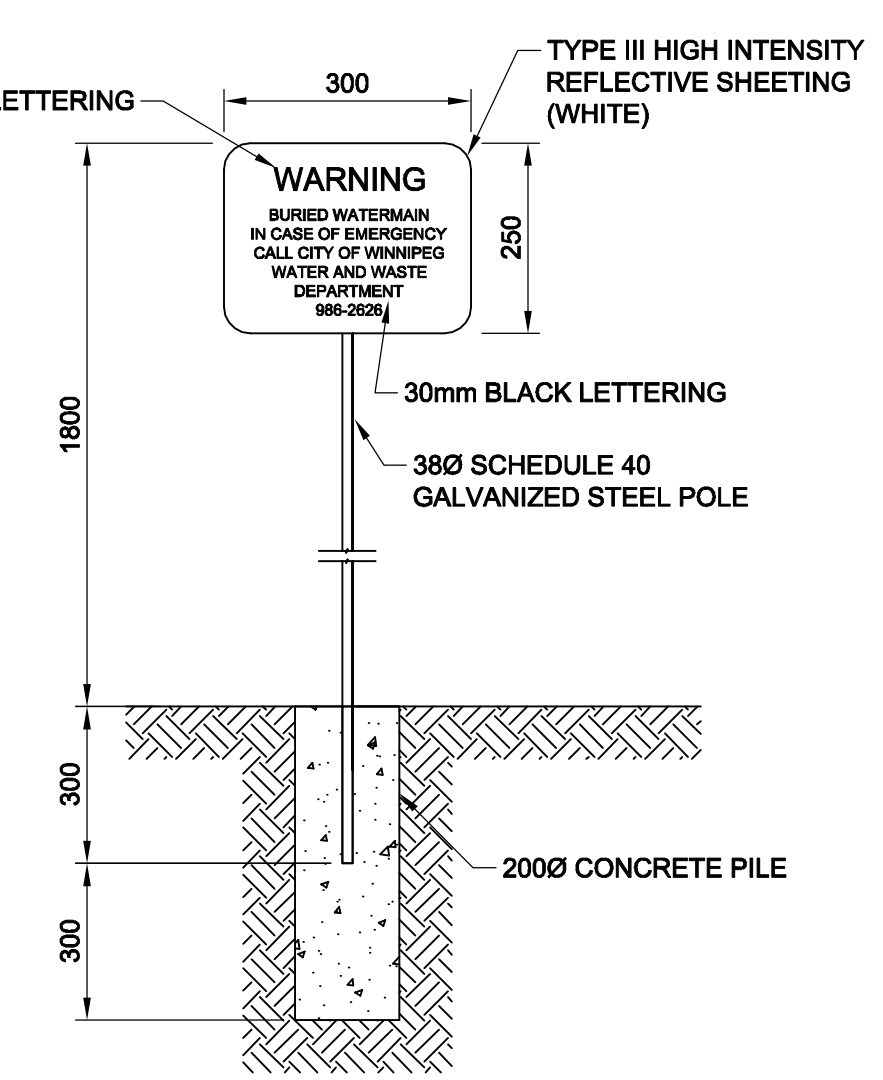
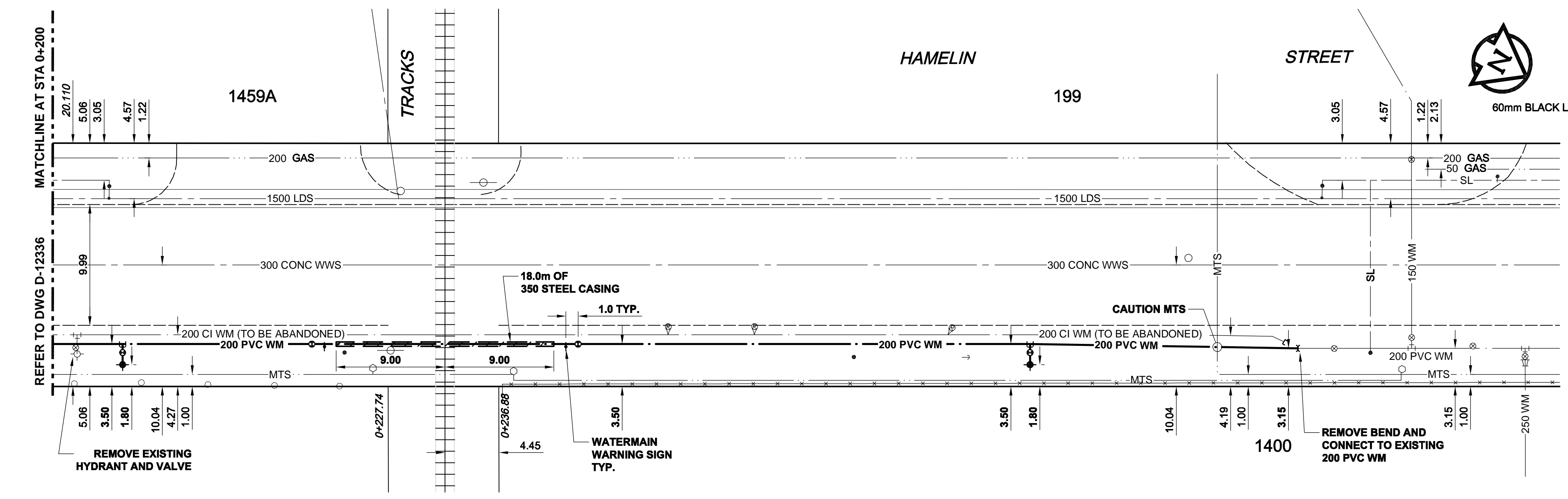
D SIZE 22" x 34" (559mm x 864mm)

PLOT: 11/04/07 12:36:10 PM

AECOM REVIEW DRFT CHK AECOM FILE NAME: 60189122-01-C-102-RDX.dwg Saved By: lacosteg



CASING PIPE DETAIL NTS

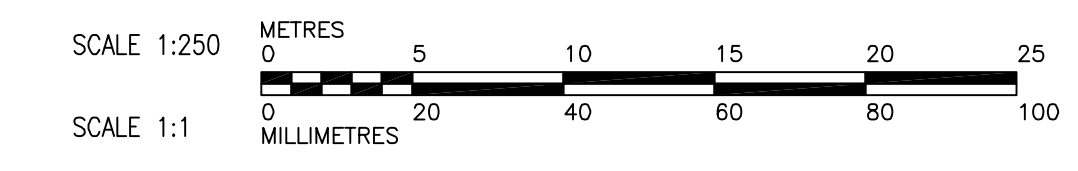


WARNING SIGN DETAIL NTS

RAIL CROSSING NOTES:		
RAILWAY MILEAGE AND SUBDIVISION:	INDUSTRIAL SPUR - LETTELLIER WC07 MI. 000.64	
MUNICIPAL DESCRIPTION OF ADJACENT SUBDIVISION:	MILE 1.74	
PROPERTIES:	HAMELIN STREET	
NAME OF PIPELINE OWNER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
CONTENTS TO BE HANDLED:	POTABLE WATER	
MAXIMUM OPERATING PRESSURE:	450 KPa (65 psi)	
MAXIMUM SURGE AND TEST PRESSURE:	1000 KPa (145 psi)	
MAXIMUM OPERATING TEMPERATURE:	20°C	
MINIMUM OPERATING TEMPERATURE:	4°C	
PIPING MATERIALS:	CARRIER	CASING
NOMINAL DIAMETER:	200 mm	350 mm
OUTSIDE DIAMETER:	230 mm	356 mm
MATERIAL:	PVC	STEEL
SPECIFICATION AND GRADE:	AWWA C900 DR18	MIN. YIELD STRENGTH 241 MPa
WALL THICKNESS:	12.8 mm	9.5 mm MIN.
TYPE OF JOINT:	RUBBER GASKET BELL AND SPIGOT	WELDED
COATING:	NA	NA
LOCATION OF SHUT OFF VALVES:	1. 6.4m NORTH OF NORTH LIMIT OF R.O.W. 2. 6.4m SOUTH OF SOUTH LIMIT OF R.O.W.	
METHOD OF INSTALLATION:	TRENCHLESS - CASING TO BE JACKED WITH NO SOIL REMOVAL AHEAD OF PIPE	
VENTS:	NA	NUMBER: NA
SEALS:	BOTH ENDS: YES	TYPE: PERMEABLE GEOTEXTILE FABRIC
BURY:	BASE OF RAIL TO TOP OF CASING:	2.9 m
	NOT BENEATH TRACKS:	NA
	ROADWAY DITCHES:	NA
	BASE OF RAIL TO BOTTOM OF JACKING/RECEIVING PITS:	3.7 m
EXTENT OF CASING MEASURED PERPENDICULAR TO CENTERLINE OF TRACK:	18.0m	
CENTERLINE OF TRACK TO FACE OF JACKING/RECEIVING PITS:	9.0m	
TYPE, SIZE, AND SPACING OF INSULATORS OR SUPPORTS:	PSI RANGER II SPACERS WITH 38mm RUNNER HEIGHT 1.8m O.C.	
CATHODIC PROTECTION:	NA	
GEOTECHNICAL BOREHOLES:	NA	
SOIL TYPE:	NA	
BASE OF RAIL TO GROUND WATER:	NA	
TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH TC -E10		

**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 140/92 FOR DETAILS

- CONSTRUCTION NOTES:**
1. EXPOSE WATERMAIN CONNECTIONS AND CONFIRM INVERTS PRIOR TO CONSTRUCTION
  2. INSTALL WATERMAIN BY TRENCHLESS METHODS.
  3. ALL MATERIALS SHALL CONFORM TO THE CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS.
  4. MINIMUM COVER TO TOP OF PROPOSED WATERMAIN SHALL BE 2.5m FROM STREET CENTERLINE.
  5. INSTALL ALL HYDRANTS WITH FLANGE ELEVATION 50mm TO 150mm ABOVE FINISHED GRADE.
  6. REPLACE ALL EXISTING LEAD SERVICES FROM THE PROPOSED WATERMAIN TO PROPERTY LINE.
  7. NOTIFY ALL AFFECTED RESIDENTS AND BUSINESSES 24 HOURS IN ADVANCE OF ANY WATER SHUTDOWN OR DISRUPTION OF SERVICE.
  8. LOCATION OF WATER SERVICES SHOWN ON DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD LOCATE ALL WATER SERVICES PRIOR TO CONSTRUCTION.
  9. BACKFILL UNDER OR WITHIN 1.0m OF PAVEMENTS, INCLUDING SIDEWALKS SHALL BE CLASS 3 BACKFILL EXCEPT AS NOTED. BACKFILL IN BOULEVARDS SHALL BE CLASS 5 BACKFILL.



**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



BID OPPORTUNITY NO. 260-2011

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

**2011 WATERMAIN RENEWALS CONTRACT 6**

**HAMELIN STREET STATION 0+200 TO 203m NORTH OF CHEVRIER BOULEVARD**

SHEET 2 OF 10  
CITY DRAWING NUMBER D-12337 REV 0

EXISTING	LEGEND - PLAN	NEW	EXISTING	LEGEND - PLAN	NEW	EXISTING	LEGEND - PROFILE	NEW
150 WM	WATERMAIN	150 WM	CURB STOP	150 WM	WATERMAIN	150 WM	WATERMAIN	150 WM
HYDRANT	HYDRANT	REDUCER	REDUCER	HYDRANT	HYDRANT	VALVE	VALVE	VALVE
VALVE	VALVE	COUPLING	COUPLING	ANODE	ANODE	LAND DRAINAGE SEWER	LAND DRAINAGE SEWER	LAND DRAINAGE SEWER
300 LDS	LAND DRAINAGE SEWER	300 LDS	WASTE WATER SEWER	250 WWS	WASTE WATER SEWER	250 WWS	WASTE WATER SEWER	250 WWS
250 WWS	WASTE WATER SEWER	250 WWS	MANHOLE	MANHOLE	CATCH BASIN	CATCH BASIN	CURB INLET	CURB INLET
CATCH BASIN	CATCH BASIN	CULVERT	CULVERT	PIPE ABANDONMENTS	PIPE ABANDONMENTS	SURVEY BAR	SURVEY BAR	SURVEY BAR
CULVERT	CULVERT	PIPE ABANDONMENTS	PIPE ABANDONMENTS	EXISTING	LEGEND - PLAN	NEW	EXISTING	LEGEND - PROFILE
PIPE ABANDONMENTS	PIPE ABANDONMENTS	EXISTING	LEGEND - PLAN	NEW	EXISTING	LEGEND - PROFILE	NEW	EXISTING
SURVEY BAR	SURVEY BAR	EXISTING	LEGEND - PLAN	NEW	EXISTING	LEGEND - PROFILE	NEW	EXISTING

**LOCATION APPROVED UNDERGROUND STRUCTURES**

NO.	REVISIONS	DATE	BY
0	ISSUED FOR TENDER	11/04/06	GDL
A	ISSUED FOR REVIEW	11/03/22	JP

**AECOM**

DESIGNED BY: GSK  
DRAWN BY: JP  
CHECKED BY: FMI  
APPROVED BY: CCM  
HOR. SCALE: 1:250  
VERT. SCALE: 1:50  
RELEASED FOR CONSTRUCTION: KAS ZUREK  
DATE: 2011/04/07

PROFESSIONAL'S SEAL  
PROVINCE OF MANITOBA  
ORIGINAL SIGNED BY  
**K.W. FITCHETT**  
APRIL 7, 2011  
REGISTERED PROFESSIONAL ENGINEER  
CONSULTANT DRAWING NO.  
60189122-01-C-102-RDX.dwg

BM 65-027  
ELEV. 233.449m

N side Chevrier Blvd., W. of Hamelin St., T56, in S. Cor. of Section of No. 1437 Chevrier Blvd. (Metal Alloy Ltd.), 0.1 m E. & 0.4 m below Conc. block of S.W. Cor. of Bldg.

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.