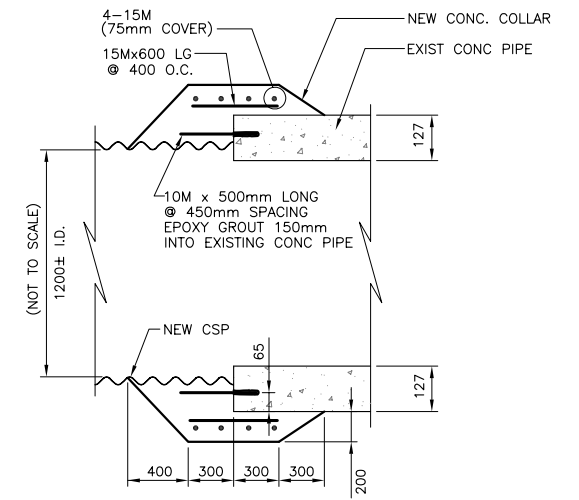


- LEGEND**
- 229— GEODETIC CONTOUR (m)
 - TH08-01 TESTHOLE WITH INSTRUMENTATION BY KGS GROUP (NOVEMBER 2008) (SI-1) SLOPE INCLINOMETER #1 (PN-1) PNEUMATIC PIEZOMETER #1 (STP-1) STANDPIPE PIEZOMETER #1
 - PROPERTY BOUNDARY



REINFORCED CONCRETE COLLAR DETAIL
SCALE: 1:25

- NOTES:**
- CONCRETE**
- CONCRETE MATERIALS AND WORKMANSHIP WAS IN ACCORDANCE WITH CAN/CSA-A23.1/ A23.2 (LATEST). SEE BELOW FOR MIX REQUIREMENTS.
 - CONCRETE MATERIALS, FORMING, PLACING, FORM REMOVAL, REINFORCING, ETC. WAS TO ACI RECOMMENDATIONS AND ACCEPTABLE PRACTICE.
 - MIX WATER WAS POTABLE. CALCIUM CHLORIDE WAS NOT USED.
 - PROVIDED ADEQUATE FROST PROTECTION FOR CONCRETE DURING CURING PERIOD.
 - CONCRETE MIX DESIGN WAS PROPORTIONED AS FOLLOWS:

28 DAY COMP. STRENGTH	30 MPa
CEMENT	TYPE MS
W/C RATIO	0.45
AGGREGATE SIZE (MAX.)	3/4"
ENTRAINED AIR	4%-6%
SLUMP (MAX.)	90mm (±10mm)
 - SUPER PLASTICIZER SUPPLIED FOR ALL POURS (SLUMP PRIOR TO ADDING PLASTICIZER WAS 100mm ± 20mm AND 200mm ± 25mm WITH PLASTICIZER).

- REINFORCING STEEL**
- REINFORCING STEEL IS NEW DEFORMED BILLET STEEL BARS CONFORMING TO CAN/CSA G30.18-M92. GRADES TO BE: 400 MPa FOR 15M BARS AND LARGER; 300 MPa FOR 10M BARS.
 - REINFORCING STEEL CLEAN, FREE OF RUST, DIRT, LOOSE SCALE, OIL, GREASE OR ANY OTHER MATERIAL WHICH WOULD REDUCE BOND WITH THE CONCRETE.
 - PROVIDED MINIMUM CONCRETE COVER FOR REINFORCING AS SHOWN ON DRAWING.

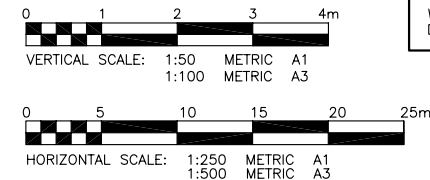


PROPERTY LIMITS DELINEATION

DELINEATION OF PROPERTY LIMITS AS SHOWN ON THIS DWG DOES NOT REPRESENT A "LEGAL SURVEY". KGS GROUP MAKES NO REPRESENTATION OR WARRANTY AS TO THE ACCURACY OF PROPERTY LIMITS DELINEATED ON THIS DWG, NOR ON THE DIMENSIONAL ACCURACY OF DWG FEATURES RELATIVE TO THOSE PROPERTY LIMITS.

WARNING

- NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
- TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
- SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.



METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

APGM
Certificate of Authorization
KGS Group
No. 245 Date: 16/12/08

150 WM	WATERMAIN	150 WM	HYDRO			
HYDRANT		M.T.S.				
VALVE		PROPERTY LINE				
LAND DRAINAGE SEWER	300 LDS	SURVEY BAR				
WASTE WATER SEWER	250 WWS	LIGHT STANDARD				
MANHOLE		HYDRO POLE				
CATCH BASIN		GUY WIRE				
CURB INLET		SIGN				
JUNCTIONS		BUSH LINE				
CULVERT		FENCE				
GAS		ELEVATION	(32.231)			
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE	PROPOSED	

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 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. 34-014	364 (654028) - TACHE AVE. & PROVENCHEUR AVE.; TBLT. IN 7.6m CONC. PILE IN MEDIAN STRIP BENEATH VALVE BOX, 6.4m E. OF THE E.L. OF TACHE AVE. & 24.4m S. OF THE N.L. OF PROVENCHEUR AVE. MONUMENT 0.2m B.G.L.
ISSUED FOR TENDER	08/12/08 RJH
NO. REVISIONS	DATE BY

KGS GROUP
CONSULTING ENGINEERS & PROJECT MANAGERS
WINNIPEG (204) 896-1209
THUNDER BAY (807) 345-2233

DESIGNED BY: RJH
CHECKED BY: RJH
DRAWN BY: DMW
APPROVED BY:

HOR. SCALE: 1:250
VERTICAL: 1:50

RELEASED FOR CONSTRUCTION: DATE

ENGINEER'S SEAL

ORIGINAL SIGNED BY
R.J. HOUSTON
16/12/08

CONSULTANT DRAWING NO.
08-107-12_02

THE CITY OF WINNIPEG
WATER & WASTE DEPARTMENT

2008 OUTFALL REPAIRS
AVENUE DE LA CATHEDRALE
PLAN AND PROFILE OUTFALL (RR-55.1)

SHEET OF
02 OF 09

CAD FILE DRAWING NUMBER
RR-55.1 PLAN-PROF

CITY DRAWING NUMBER
LD-5239

FILE NO. P:\PROJECTS\2008\08-0107-12\DWG\MUN\RR-55.1 PLOT.DWG
PLOT: 1:1 A-1