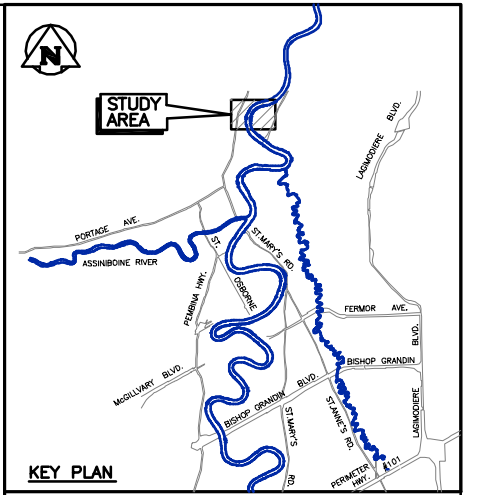
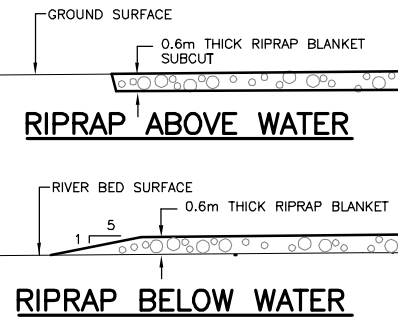
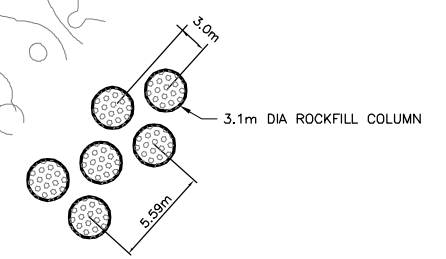


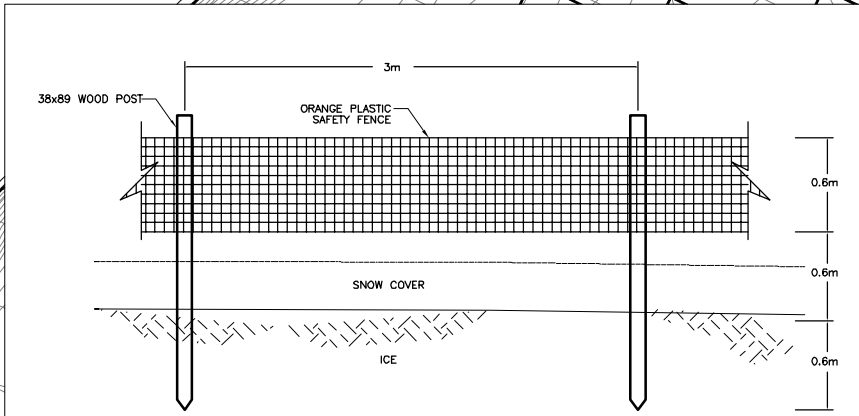
TYPICAL COLUMN DETAILS
 TYPICAL FOR 4.0m EFFECTIVE WIDTH ROCKFILL COLUMN SHEAR KEY USING 3.1m dia COLUMNS



LEGEND

SP05-01	TEST HOLE KGS GROUP, 2005 (STANDPIPE PIEZOMETER INSTALLATION)
PN01 and 02	TEST HOLE KGS GROUP, 2005 (PNEUMATIC PIEZOMETER INSTALLATION)
TH05-03	TEST HOLE KGS GROUP, 2005
SI-9	TEST HOLE KGS GROUP, 2004 (SLOPE INCLINOMETER INSTALLATION)
SP-5	TEST HOLE KGS GROUP, 2004 (STANDPIPE PIEZOMETER INSTALLATION)
PN-9	TEST HOLE KGS GROUP, 2004 (PNEUMATIC PIEZOMETER INSTALLATION)
TH-1	TEST HOLE UMA ENGINEERING, 1995
SI-1	TEST HOLE HBT AGRA, 1993 (SLOPE INCLINOMETER INSTALLATION) (DESTROYED)
TH-2	TEST HOLE HBT AGRA, 1993 (STANDPIPE PIEZOMETER INSTALLATION) (DESTROYED)
RSRL	REGULATED SUMMER RIVER LEVEL (SEE NOTE 4)
UWRL	UNREGULATED WINTER RIVER LEVEL (SEE NOTE 5)
(Tree symbol)	NEW TREE

- NOTES:**
- THESE DRAWINGS TO BE READ IN CONJUNCTION WITH BID OPPORTUNITY No. 747-2005.
 - SITE PLAN BASED ON 1998 DIGITAL ORTHOGRAPHIC MAPPING AND 2004/2005 KGS GROUP TOPOGRAPHIC SURVEY. RIVER BOTTOM BASED ON KGS SURVEY, OCTOBER 2005.
 - IT IS ANTICIPATED THAT THE RIVER LEVEL AT ST. JOHN'S PARK WILL BE EL.222.4m (approx)
 - THE TERM RSRL REFERS TO THE WATER LEVEL AT THE JAMES AVENUE PUMPING STATION WITH THE ST. ANDREWS LOCK AND DAM IN OPERATION AND FOR FLOWS LESS THAN 12,000 CFS.
 - THE TERM UWRL REFERS TO THE HYDRAULIC PROFILE ON THE RED RIVER AND WILL VARY DEPENDING ON RIVER DISCHARGE AND LOCATION.
 - DOGWOOD SHORELINE PLANTING AND SIX 75mm CALIPER TREES OR APPROVED RIVER BOTTOM SPECIES AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS.
 - ROCKFILL COLUMNS LOCATED 20m EITHER SIDE OF HART AVENUE FORCEMAIN SHALL BE INSTALLED PRIOR TO INITIATING CONSTRUCTION OF THE REMAINING SHEAR KEY.
 - REGRADE AREA TO PROVIDE POSITIVE DRAINAGE AS DIRECTED BY THE CONTACT ADMINISTRATOR.
 - THE CONTACTOR SHALL EXPOSE THE HART AVENUE FORCEMAIN TO VERIFY ITS LOCATION. THE EXCAVATION SHALL BE BACKFILLED WITH COMPACTED BASE COURSE MATERIAL. THE CONTRACTOR SHALL CONSTRUCT AN APPROVED CROSSING FOR VEHICULAR TRAFFIC OVER THE FORCEMAIN.



0 10 20 30 40 50m
 SCALE: 1:500 METRIC A1
 1:1000 METRIC A3

APEGM
 Certificate of Authorization
 KGS Group
 No. 245 Expiry: April 30, 2008

150_WW	WATERMAIN	150_WW	HYDRO M.T.S.	230	GROUND CONTOUR
+	HYDRANT	+	PROPERTY LINE	SI-5	SLOPE INCLINOMETER (KGS GROUP, 2004)
+	VALVE	+	SURVEY BAR	PN-5	PNEUMATIC PIEZOMETER (KGS GROUP, 2004)
300_LDS	LAND DRAINAGE SEWER	300_LDS	LIGHT STANDARD	SP-3	STANDPIPE PIEZOMETER (KGS GROUP, 2004)
250_WWS	WASTE WATER SEWER	250_WWS	HYDRO POLE	(Symbol)	EXISTING BUILDING
○	MANHOLE	○	GUY WIRE	(Symbol)	TREE
□	CATCH BASIN	□	SIGN	(Symbol)	TIMBER PILE
▽	CURB INLET	▽	BUSH LINE	(Symbol)	
+	JUNCTIONS	+	FENCE		
+	CULVERT	+	ELEVATION	231.334	(32.231)
+	GAS	+	LEGEND-PLAN	EXISTING	PROPOSED
---	LEGEND-PLAN	---	LEGEND-PLAN	EXISTING	PROPOSED

LOCATION APPROVED UNDERGROUND STRUCTURES

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.	XX-XXX		
	XXX.XXX		
NO.	REVISIONS	DATE	BY
0	ISSUED FOR BIDDING	05/01/06	AMH

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

DESIGNED BY: A.M.H.
 CHECKED BY: R.Ke.
 DRAWN BY: P.D.
 APPROVED BY: R.Ke.
 HOR. SCALE: 1:200
 VERTICAL: -
 RELEASED FOR CONSTRUCTION: _____
 DATE: DECEMBER 2005

ENGINEER'S SEAL

PROVINCE OF MANITOBA
A.M. HAMILTON
 Member
 20489
 REGISTERED PROFESSIONAL ENGINEER

CONSULTANT DRAWING NO.
05-0107-19-02

THE CITY OF WINNIPEG
 PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT

ST. JOHN'S PARK
 RIVERBANK REMEDIATION WORKS
 GENERAL SITE ARRANGEMENT/
 PLAN OF REMEDIAL WORKS

SHEET **02** OF **03**
 CAD FILE DRAWING NUMBER **05-0107-19-02**
 CITY DRAWING NUMBER _____

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