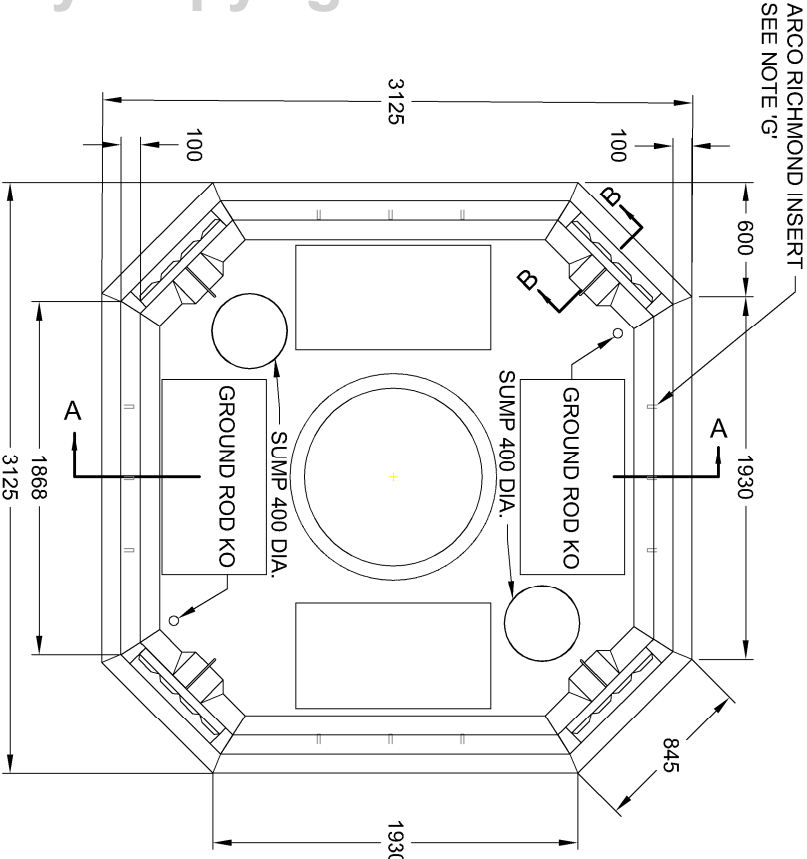
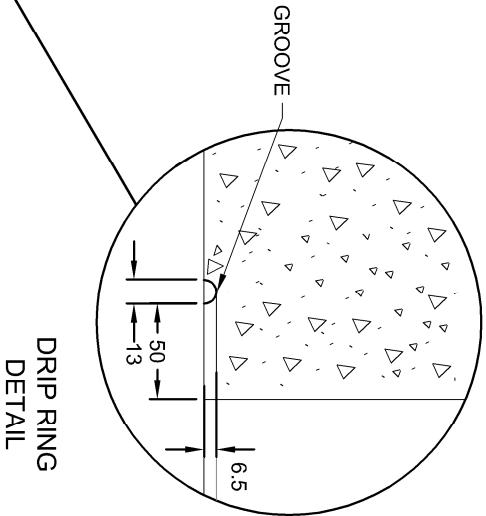


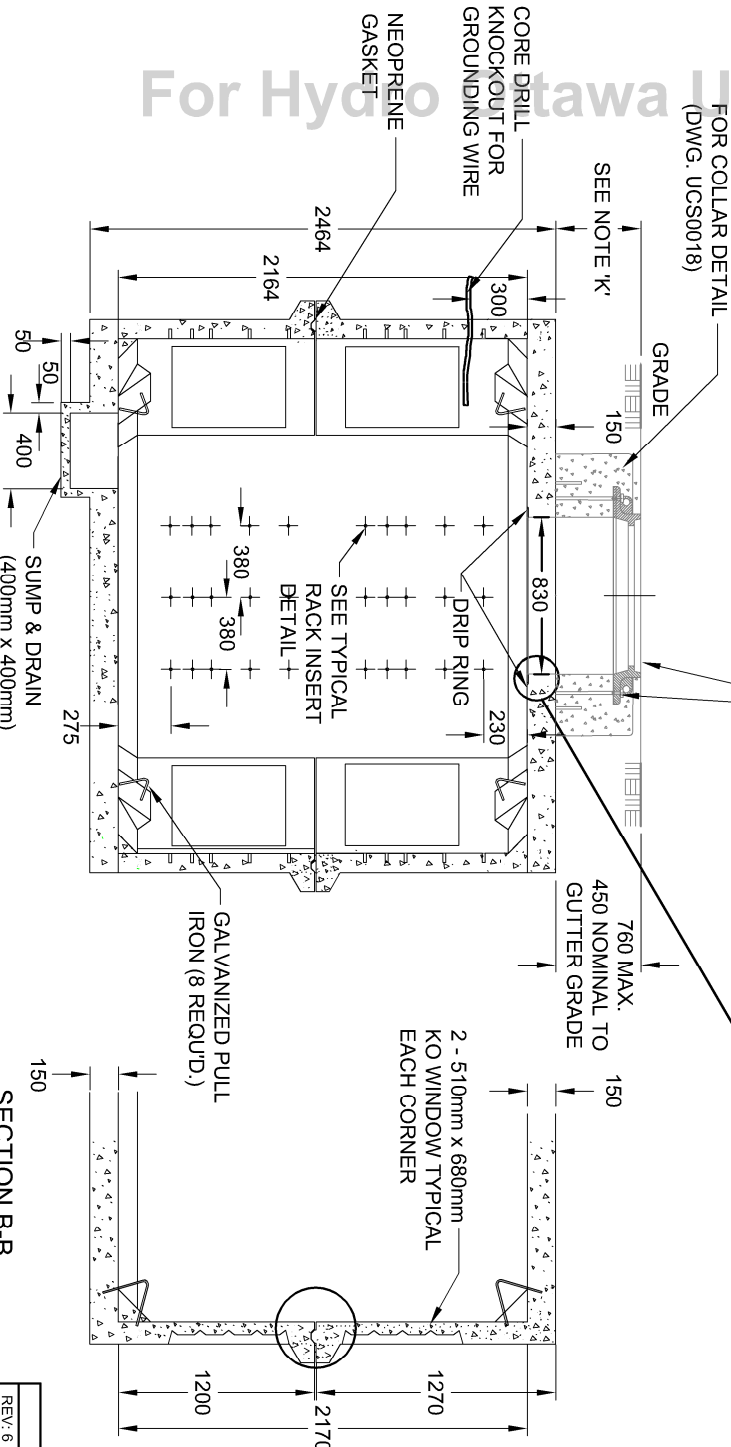


SEE NOTE 'A'
MANHOLE FRAME & COVER
DWG. UCS0020 & UCS0021



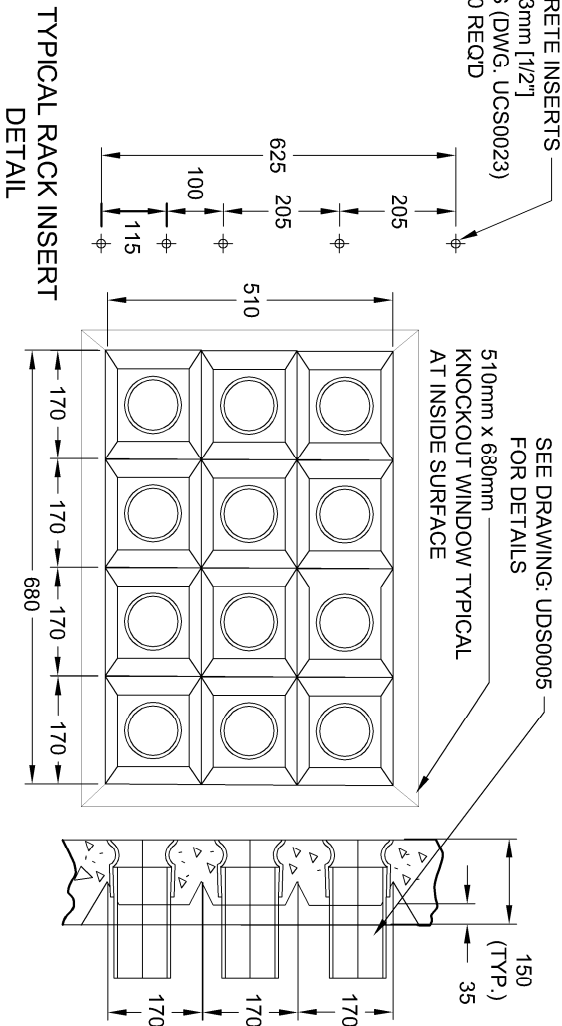
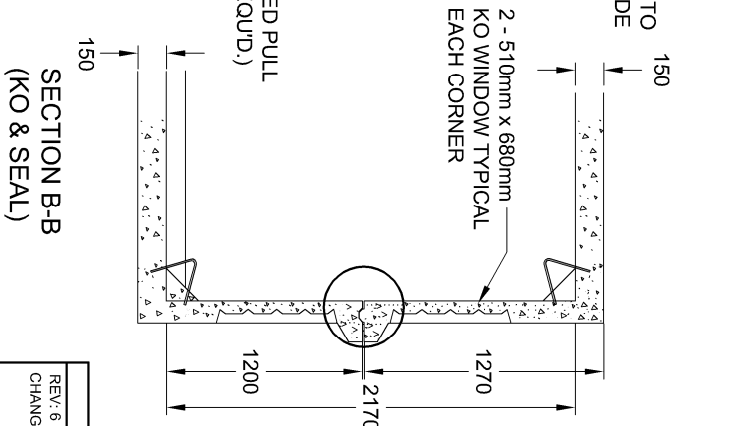
NOTES:

- A. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.
- B. SUPPLIED BY HYDRO OTTAWA FOR HYDRO OTTAWA OWNED MANHOLES.
- C. LOADS CAN/CSA-S6-06 CL-625-ONT TRUCK LIVE LOADING. SOIL - 1500mm MAX. 300mm MIN. WATER TABLE AT SURFACE.
- D. CONCRETE - 50 MPa. AND SHALL MEET REQUIREMENTS OF CSA A23.1/A23.2 LATEST EDITION FOR CONCRETE EXPOSED TO DE-ICING CHEMICALS. AIR CONTENT 5-8% C1-CLASS OF EXPOSURE.
- E. REINFORCING STEEL - 400 MPa, MIN. 38mm CONCRETE COVER OVER STEEL.
- F. GENERAL REQUIREMENTS FOR METHODS AND MATERIALS SHALL CONFORM TO CAN/CSA-A23.1/A23.2 (CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION / METHODS OF TEST AND STANDARD PRACTICES FOR CONCRETE.
- G. SEE HYDRO OTTAWA CONSTRUCTION SPECIFICATION DOCUMENT NUMBER: GCS0005 SECTION 6.2 FOR INSTALLATION PROCEDURE.
- H. INSERTS TYPE 11/4 LEL - DH OR EQUIVALENT TO BE INSTALLED. THREE ON THE TOP OF EACH SIDE AND THREE AT THE BOTTOM OF EACH SIDE.
- I. SUMP KNOCK OUT IN FLOOR TO BE 400mm. x 400mm. (16" x 16").
- J. DUCT BANK REINFORCING TO BE DOWELED INTO MANHOLE WALL.
- K. IF DIMENSION IS LESS THAN 450mm, ON-SITE APPROVAL BY HYDRO OTTAWA IS REQUIRED.
- L. WHEN INSTALLING SETBACK AROUND EXISTING CABLES SEE DRAWING UDS0005 FOR DETAILS AND FOLLOW HYDRO OTTAWA STANDARD WORK METHOD UG10.



SEE NOTE 'K'
SUMP & DRAIN
(400mm x 400mm)
SEE UCS0017 FOR DETAILS

SECTION B-B
(KO & SEAL)



TYPICAL KNOCKOUT DETAIL (KO)

REVISIONS				TITLE			
REV: 6	DATE: 2011-08-16	FB	RL	PREP	CHKD	APPD	ENGINEERING SPECIFICATION
CHANGE: DIMENSION & NOTE REVISIONS.							
REV: 7	DATE: 2014-02-10	MM	RV				MANHOLE PRECAST
CHANGE: REVISED COLLAR DIMENSION AND NOTE 'L'. ADDED NOTE 'M'.							4 WAY 1010
REV: 8	DATE: 2017-07-17	EV	MW				CONSTRUCTION DETAIL
CHANGE: UPDATE NOTE 'H'. CHANGE DEPTH, SUMP & CONCRETE							
				NO.			
				UCS0015			
				1 REV.			
				1 OF 1			
				8			