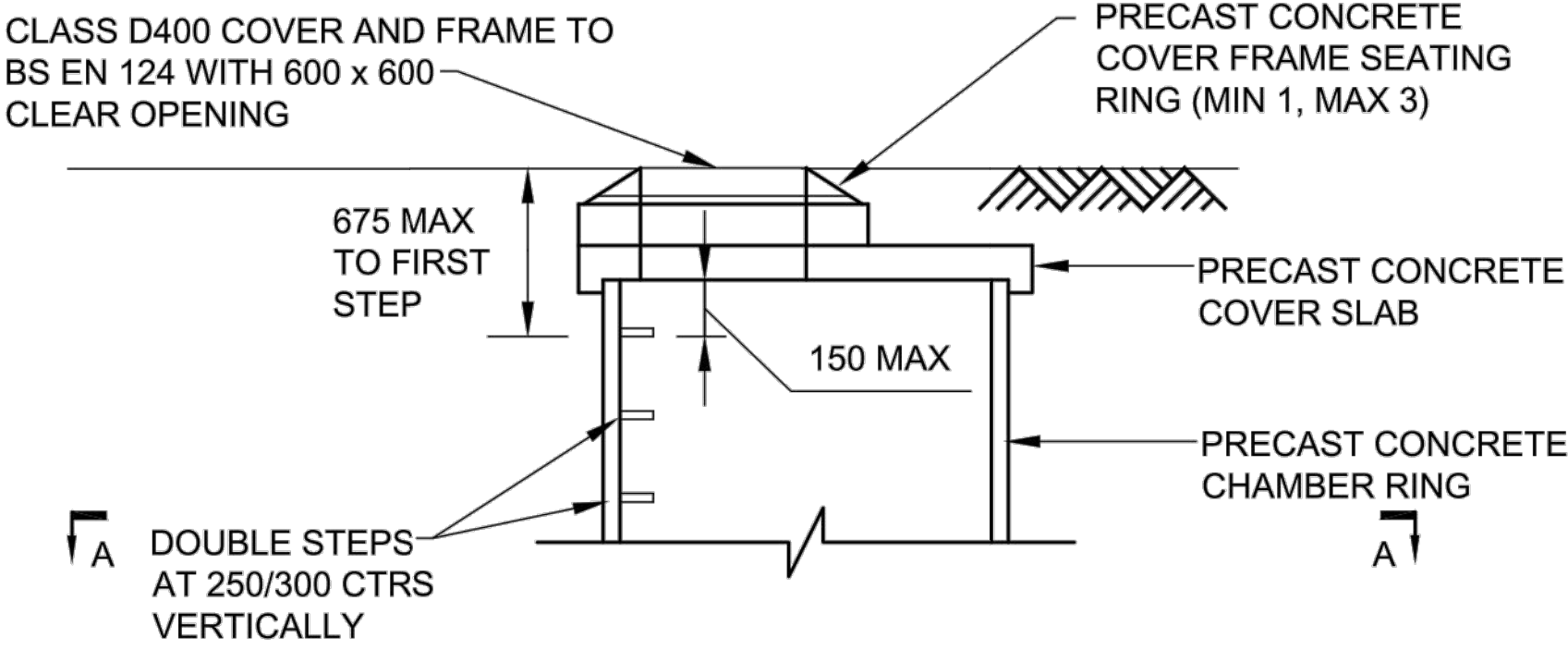
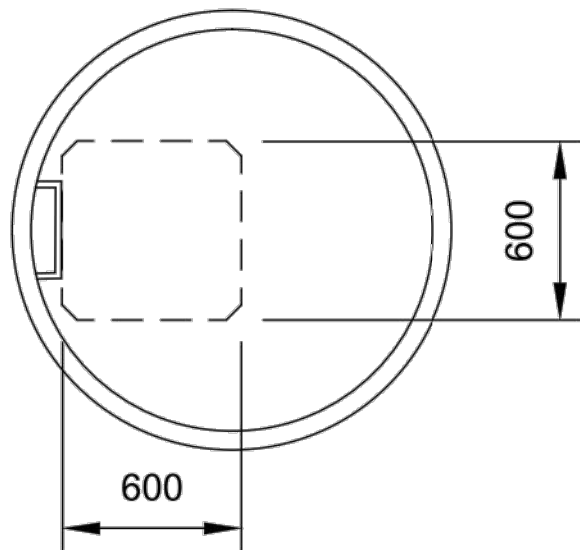
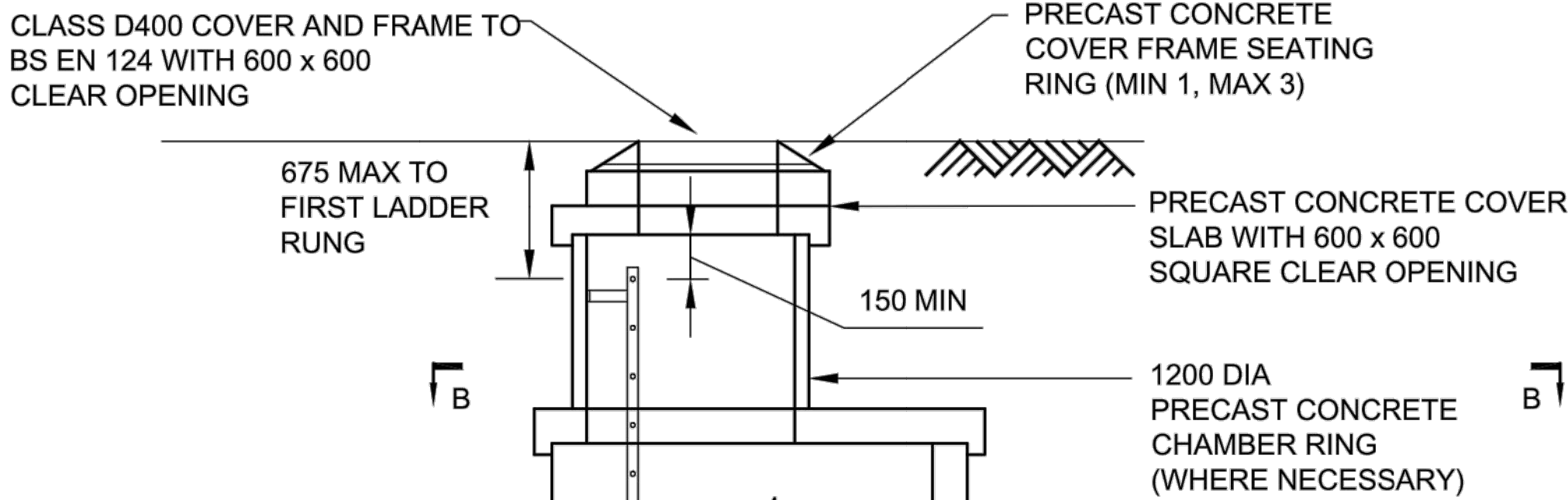




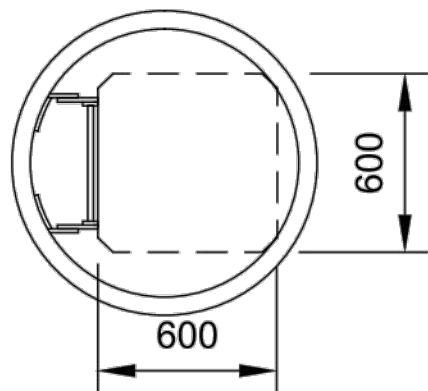
DOUBLE STEPS ACCESS



PLAN A-A



LADDER ACCESS



PLAN B-B

MANHOLE ACCESS DETAILS

VARIABLE FEATURES (V.F.)										
A	MANHOLE SHAFT AND LADDER / DOUBLE STEP ACCESS	FOR 1200, 1350 AND 1500 MANHOLE CHAMBERS (OR WHERE THE DEPTH TO SOFFIT IS < 3M) A FULL HEIGHT (NO ACCESS SHAFT) CONSTRUCTION IS TO BE USED. FOR DEPTHS TO BENCHING FROM COVER LEVEL <3.0m DOUBLE STEP ACCESS SHALL BE USED. FOR MANHOLES DEEPER THAN 3.0m TO BENCHING A LADDER IS REQUIRED. FOR DOUBLE STEP ACCESS MINIMUM INTERNAL MANHOLE ACCESS SHAFT DIAMETER SHALL BE 1050. FOR LADDER ACCESS MINIMUM INTERNAL SHAFT DIAMETER SHALL BE 1200.								
B	MANHOLE COVER	DEPTH TO SOFFIT FROM COVER LEVEL <1.5M		DEPTH TO SOFFIT FROM COVER LEVEL ≥ 1.5M						
		MINIMUM CLEAR OPENING SIZES 750 x 750 ON 1050 AND 1200 CHAMBER / SHAFT 1200 x 675 ON 1350 AND ABOVE CHAMBERS / SHAFTS BENEATH ALL MAN-ACCESS COVERS GREATER THAN 600x600 A RETRACTABLE SAFETY HANDHOLD SHALL BE PROVIDED. IT SHALL EXTEND 1200 ABOVE GROUND LEVEL		MINIMUM CLEAR OPENING SIZES 600 x 600 FOR DOUBLE STEP ACCESS 600 x 600 FOR LADDER ACCESS 750 x 600 FOR FEATURE LADDER ACCESS						
	COVER SLAB CHAMBER DIA 1050 1200 1350 TO 1500 1800 AND ABOVE	HOLE SIZE IN COVER SLAB	COVER FRAME SEATING RING ON COVER SLAB DOUBLE STEP ACCESS	HOLE SIZE IN COVER SLAB	COVER FRAME SEATING RING ON COVER SLAB					
					DOUBLE STEP ACCESS	LADDER ACCESS				
		750 x 750 C.O. 750 x 750 E.O. 1200 x 675 C.O. 1200 x 675 E.O.	750 x 750 C.O. 750 x 750 E.O. 1200 x 675 C.O. 1200 x 675 E.O.	600 x 600 E.O. 750 x 600 E.O. 750 x 600 E.O. 750 x 600 E.O.	TYPE 1 - 600 x 600 E.O. TYPE 1 - 600 x 600 E.O. TYPE 1 - 600 x 600 E.O. TYPE 1 - 600 x 600 E.O.	NOT APPLICABLE TYPE 1 - 600 x 600 E.O. TYPE 1 - 600 x 600 E.O. TYPE 1 - 600 x 600 E.O.				
NOTE : FOR LADDER ACCESS THE ECCENTRIC SEATING RING IS TURNED THROUGH 180 DEGREES C.O. = CENTRAL OPENING E.O. = ECCENTRIC OPENING										
	REDUCING SLAB CHAMBER DIA 1200 TO 1500 1800 AND ABOVE	HOLE DIAMETER IN REDUCING SLAB REDUCING SLAB NOT USED 1050 FOR DOUBLE STEP ACCESS OR 1200 FOR LADDER ACCESS								
FEATURE RELATED TO PIPE DIAMETER		DIAMETER OF LARGER PIPES								
		225	300	375	450	525	600	675	750	825 AND ABOVE
C	ROCKER PIPES	ROCKER PIPE EFFECTIVE LENGTH : 600					ROCKER PIPE EFFECTIVE LENGTH : 1000		SEE NOTE 6	
D	BENCHING WIDTH	MINIMUM 600		MINIMUM 750		MINIMUM 1100				
E	BENCHING RAILINGS	NOT REQUIRED				REQUIRED				
F	SEWER SAFETY CHAINS	NOT REQUIRED				REQUIRED				
G	INVERT ACCESS STEP	NOT REQUIRED		REQUIRED WITH DOUBLE STEPS						
H	CHANNEL FITTINGS	VITRIFIED CLAY	NOT REQUIRED (CHANNELS FORMED USING GRANOLITHIC CONCRETE)							

CIVIL / STRUCTURAL DESIGN RISK MANAGEMENT

Abnormal or unusual residual risks associated with the design outcomes shown on this drawing are:-

RSK LDE LTD has followed its Design Risk Management process for Hazard Elimination and Risk reduction in developing the designs shown on this drawing.
Abnormal or unusual residual risks may be shown above where it is considered that such risk may not normally be expected by competent persons engaged on work of this nature or type.

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RSK

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Client

Kellen Homes

Project Title

Don Street
Middleton

Drawing Title

Drainage Construction details
Sheet 8 of 10

Drawn	Date	Checked	Date	Approved	Date
JA	JULY '21	MS	JULY '21		
Scale	Orig Size	Dimensions			
NTS	A1				
Project No.		Drawing File			
882333					
Drawing No.					Rev.
40-15-08					P1