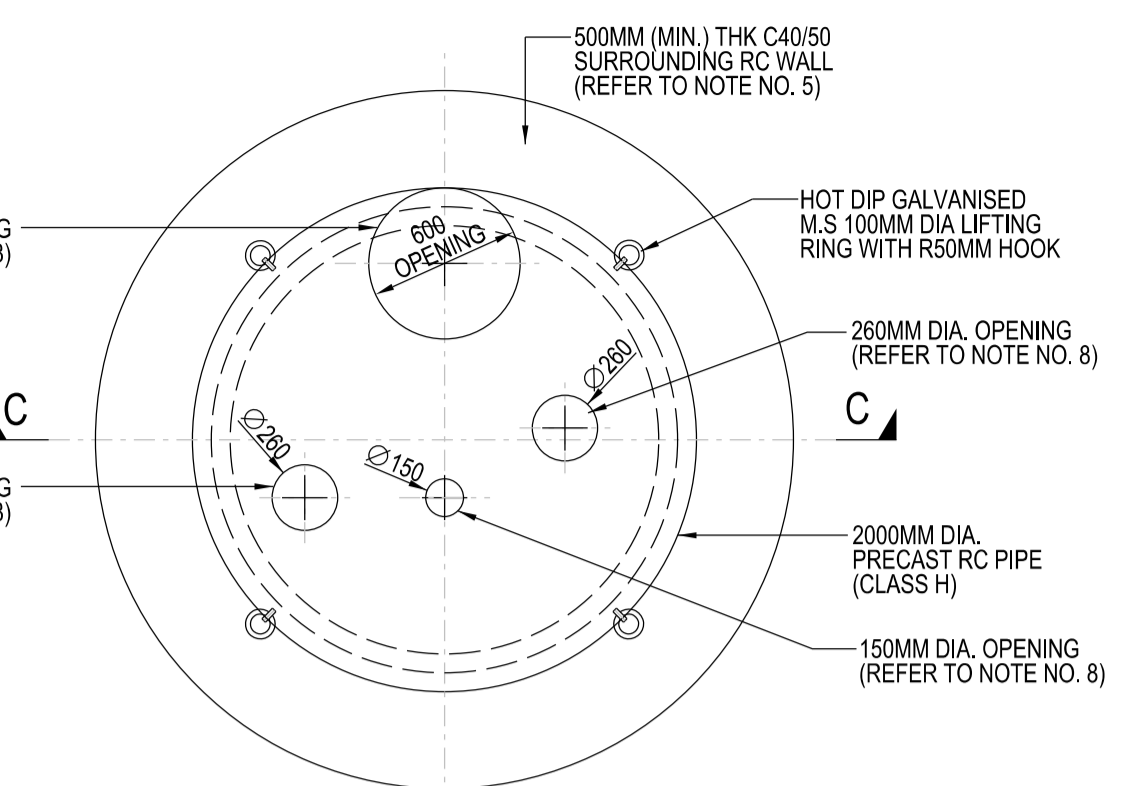
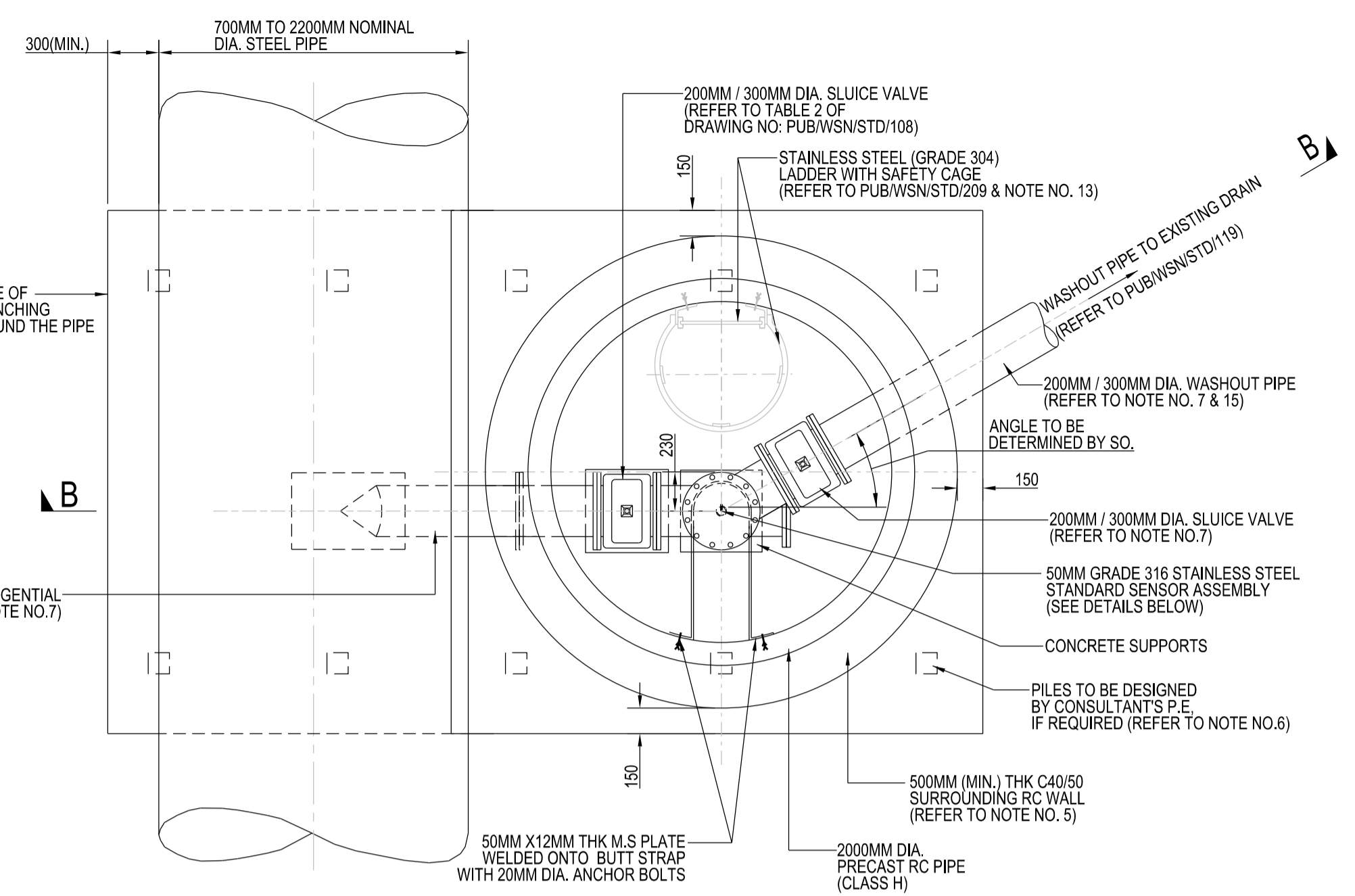
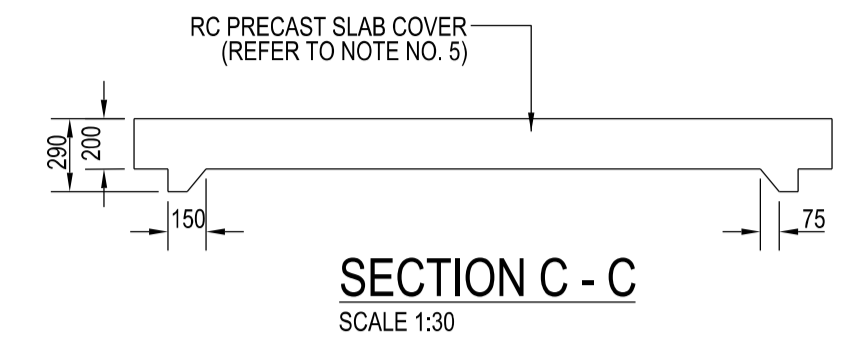


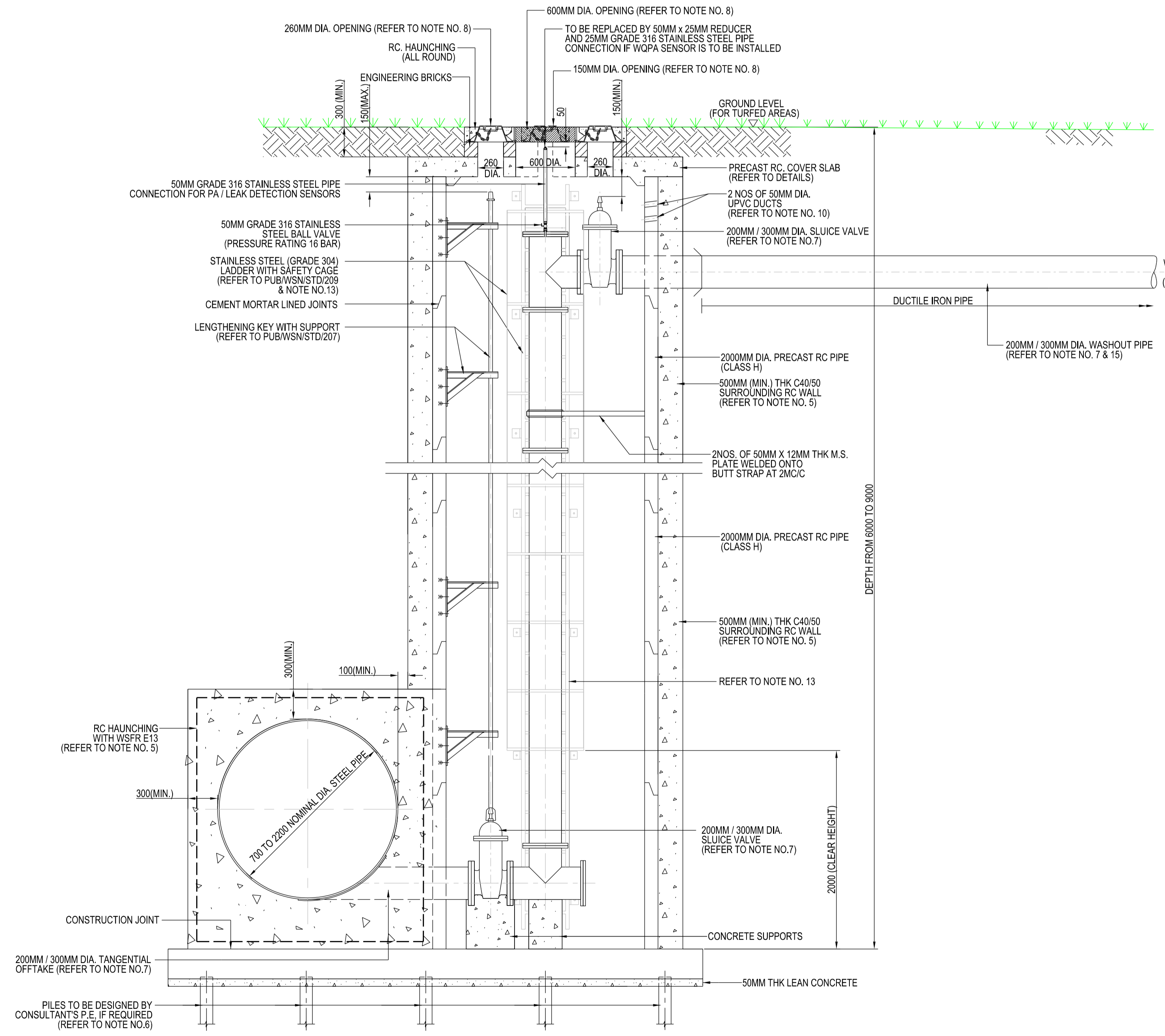
- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
 2. THE CONTRACTOR SHALL REFER TO THE GENERAL NOTES IN DRAWING NO. PUB/WSN/GN001.
 3. THIS DRAWING PROVIDES THE CONCEPTUAL DESIGN OF WASHOUT CHAMBERS UP TO 9M DEPTH AND IS NOT VALID FOR CHAMBERS EXCEEDING 9M DEPTH FROM GROUND LEVEL. FOR SUCH CHAMBERS, THE CONSULTANT SHALL SUBMIT THE DRAWINGS FOR THE BOARD'S CLEARANCE.
 4. ALL CHAMBERS SHALL BE DESIGNED BY THE CONSULTANT AND SUBMITTED TO BCA FOR APPROVAL.
 5. THE CONSULTANT'S P.E. SHALL UNDERTAKE THE DETAILED DESIGN OF THE CHAMBER AND SUBMIT TOGETHER WITH THE ACCREDITED CHECKER APPOINTED BY THE BOARD TO SUPERINTENDING OFFICER (S.O) AND BCA FOR APPROVAL.
 6. THE CONSULTANT'S P.E. SHALL UNDERTAKE GEOTECHNICAL ANALYSIS TO ASSESS THE ALLOWABLE BEARING CAPACITY OF THE SOIL AND EXPECTED SETTLEMENT OF THE CHAMBER AND SUBMIT A REPORT TO THE BOARD. IN ADDITION, THE CONTRACTOR SHALL UNDERTAKE PLATE LOAD TESTS TO VERIFY THE IN-SITU SOIL BEARING CAPACITY. IN ACCORDANCE WITH BS EN ISO 22476-13, WHERE THE BEARING CAPACITY IS DEEMED INADEQUATE AND/OR SETTLEMENT IS EXCESSIVE, THE CHAMBER SHALL BE SUPPORTED ON PILES. THE CONSULTANT'S P.E. SHALL DESIGN ALL PILING WORKS AND SUBMIT (IN CONJUNCTION WITH THE ACCREDITED CHECKER APPOINTED BY THE BOARD), TO THE BUILDING AND CONSTRUCTION AUTHORITY (BCA) FOR APPROVAL.
 7. DIAMETER OF WASHOUT PIPES:
200MM DIA. WASHOUT PIPE FOR 700-1600MM DIA. MAIN PIPE
300MM DIA. WASHOUT PIPE FOR 1800-2200MM DIA. MAIN PIPE
 8. ALL MANHOLE COVERS AND FRAME SHALL BE OF HEAVY DUTY DUCTILE IRON TO GRADE A1 UNDER S530.
 - a) USE STANDARD HEAVY DUTY DUCTILE IRON (GRADE A1) DOUBLE TRIANGULAR MANHOLE COVER AND FRAME (REFER TO PUB/WSN/STD/204) FOR 600MM DIA. OPENING.
 - b) USE STANDARD HEAVY DUTY DUCTILE IRON (GRADE A1) MANHOLE COVER AND FRAME FOR VALVE SPINDLE (REFER TO PUB/WSN/STD/219) FOR 150MM AND 260MM DIA. OPENING.
 9. 40MM THK APPROVED JOINT SEALING COMPOUND TO BE APPLIED TO WASHOUT PIPE WHERE IT PUNCTURES THE RC PIPE. PRIOR TO APPLICATION OF THE SEALING COMPOUND, BITUMINOUS WRAPPING SHALL BE REMOVED FROM THE STEEL PIPE AND PIPE SURFACE SHALL BE SMOOTHENED.
 10. UPVC DUCTS FOR CABLE LAYING (BY OTHERS) ARE TO BE INFILLED WITH SEALING COMPOUND. POSITION OF UPVC DUCTS ARE INDICATIVE AND SHALL BE CONFIRMED ON SITE.
 11. OPENINGS PRECAST CONCRETE COVER SLAB SHALL BE CENTRED OVER THE VALVE SPINDLES. POSITION OF OPENINGS ARE INDICATIVE AND SHALL BE CONFIRMED ON SITE.
 12. LENGTHENING KEYS FOR VALVES SHALL EXTEND WITHIN 150MM BELOW THE SOFFIT OF THE PRECAST CONCRETE COVER SLAB.
 13. SAFETY CAGE SHALL BE PROVIDED FOR ALL LADDERS EXCEEDING 3M HEIGHT (REFER TO PUB/WSN/STD/209).
 14. ASSEMBLY FOR LEAK DETECTION SENSORS ARE TO BE INSTALLED AT NOT MORE THAN 750mm C/C ALONG THE PIPELINE. (THE LEAK DETECTION SENSORS WILL BE INSTALLED UNDER SEPARATE CONTRACT).
 15. FOR CONNECTION OF WASHOUT PIPE TO EXISTING DRAIN, PLEASE REFER TO PUB/WSN/STD/119.
 16. ALL PIPES WITHIN THE CHAMBER SHALL BE OF MILD STEEL. THE PIPE FROM CHAMBER TO DRAIN SHALL BE OF DUCTILE IRON.



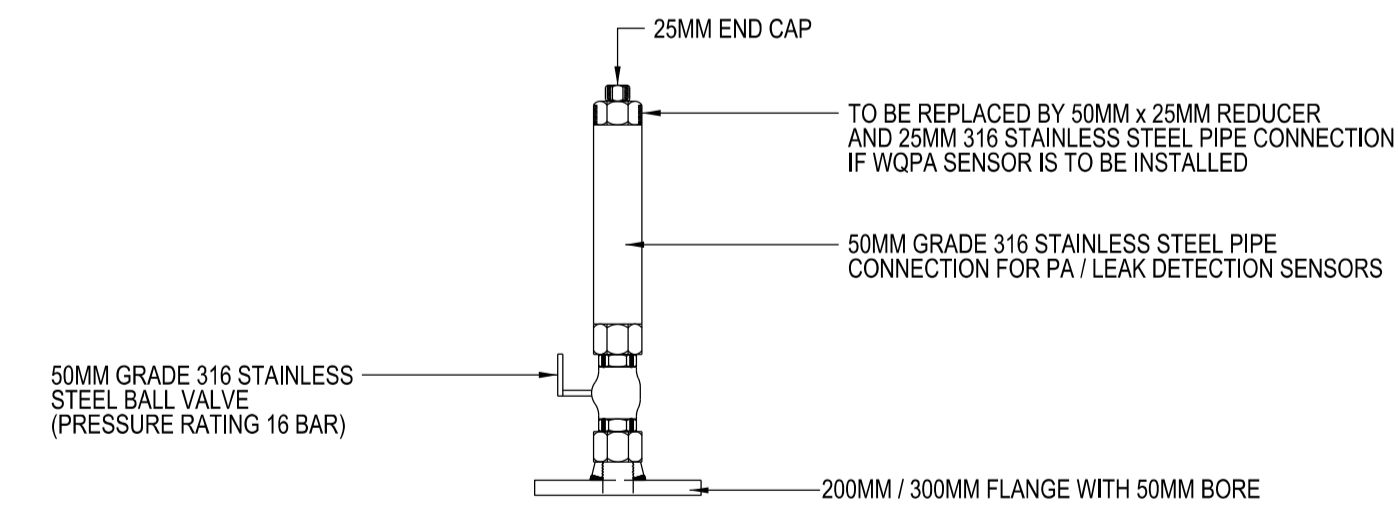
DETAILS OF PRECAST RC. COVER SLAB
SCALE 1:30



PLAN FOR DEEP WASHOUT CHAMBER (DEPTH FROM 6M TO 9M)
SCALE 1:30



SECTION B - B
DEEP WASHOUT CHAMBER (DEPTH FROM 6M TO 9M)
SCALE 1:30



STANDARD SENSOR ASSEMBLY [FOR WATER QUALITY PRESSURE ACOUSTIC (WQPA) AND PRESSURE ACOUSTIC (PA) / LEAK DETECTION SENSORS]
SCALE 1:10

ISSUED: NOV 2020	SCALE	DRAWING NO.
LAST REVIEWED: AUG 2021	AS SHOWN	PUB/WSN/STD/111

TYPICAL DEEP WASHOUT CHAMBER (DEPTH FROM 6M TO 9M)