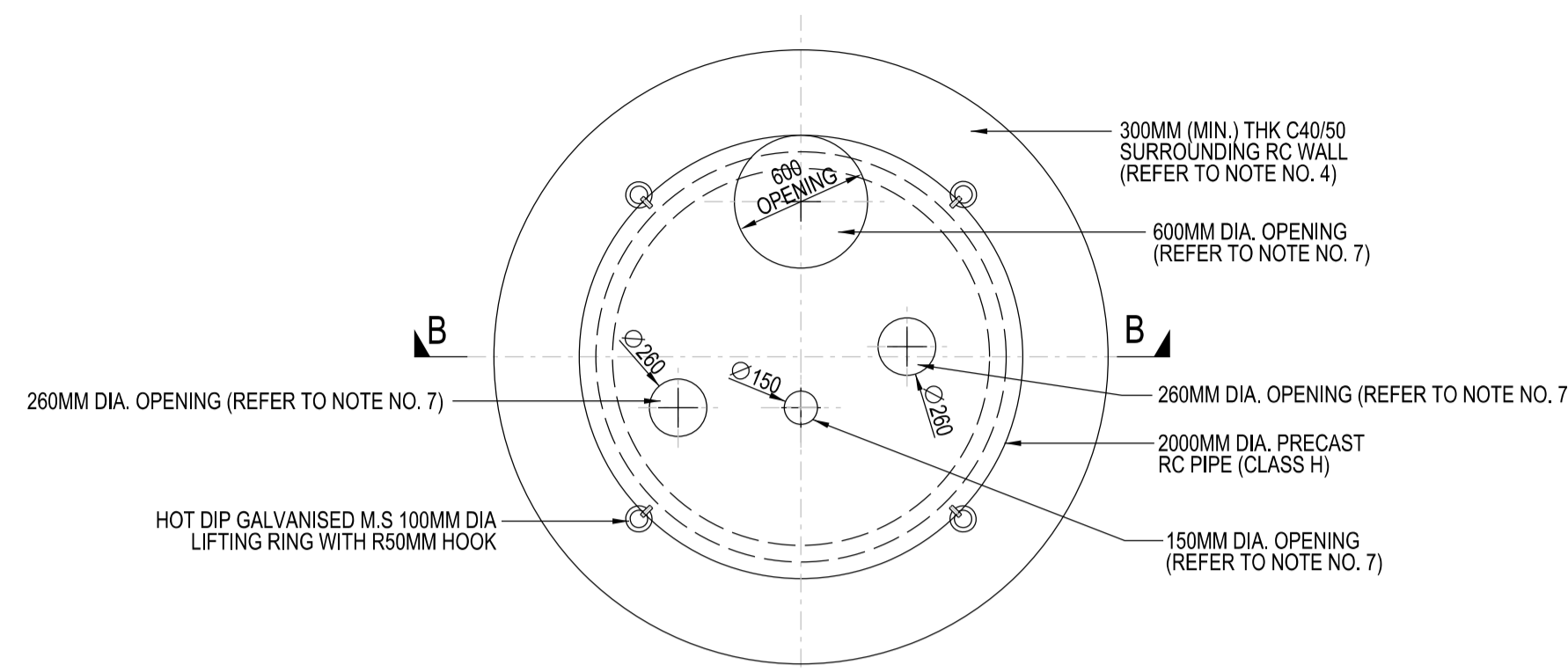
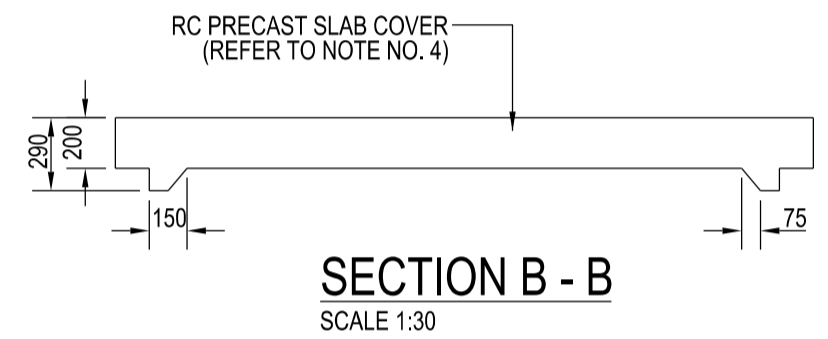


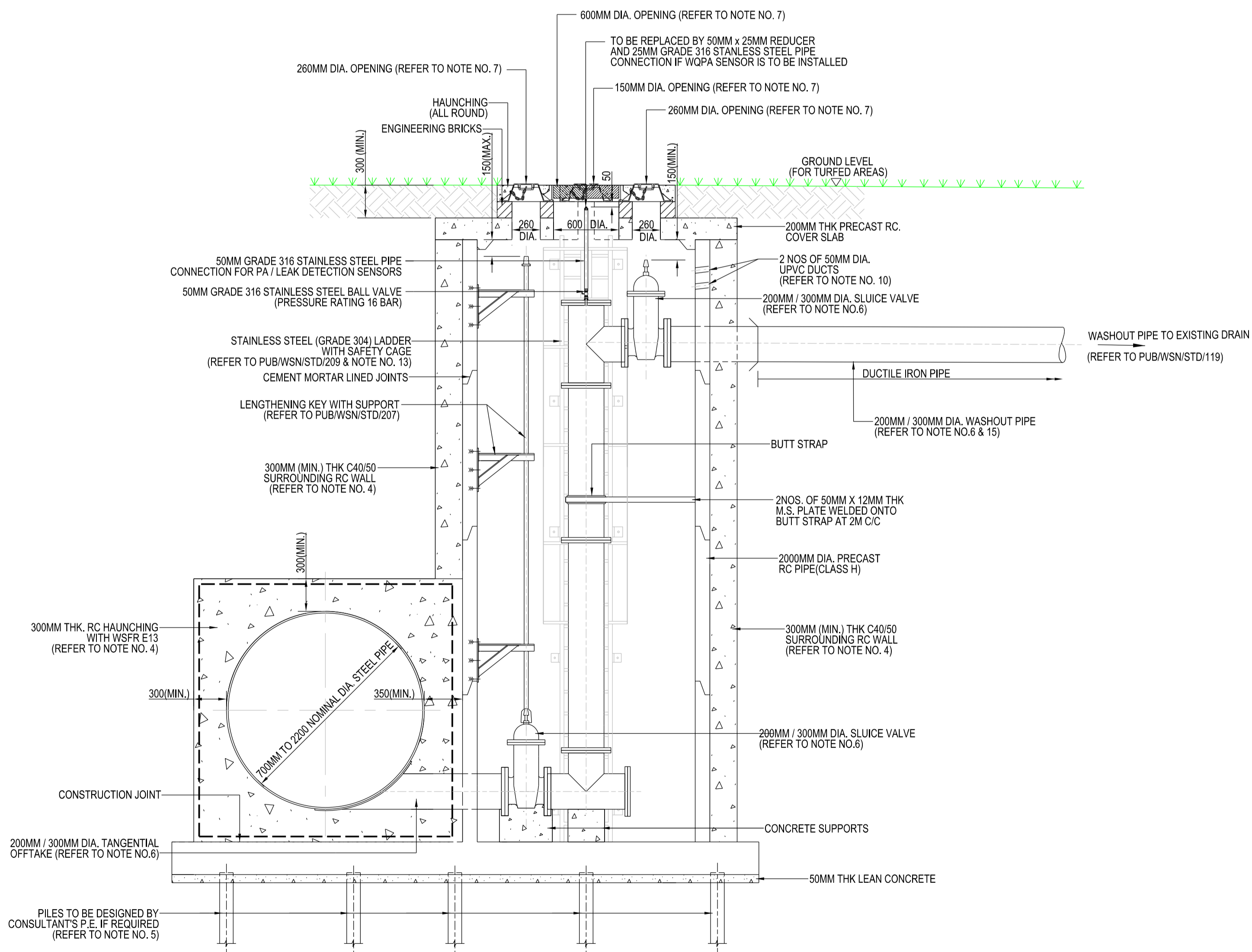
**PLAN FOR WASHOUT CHAMBER (DEPTH UP TO 6M)**  
SCALE 1:30



**PLAN OF PRECAST RC. COVER SLAB**  
SCALE 1:30



**SECTION B - B**  
SCALE 1:30



**SECTION A - A**  
**WASHOUT CHAMBER (DEPTH UP TO 6M)**  
SCALE 1:30

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

- NOTES:
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
  - THE CONTRACTOR SHALL REFER TO THE GENERAL NOTES IN DRAWING NO. PUB/WSN/001.
  - ALL CHAMBERS SHALL BE DESIGNED BY THE CONSULTANT AND SUBMITTED TO BCA FOR APPROVAL.
  - 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.
  - 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.
  - DIAMETER OF WASHOUT PIPES:  
200MM DIA. WASHOUT PIPE FOR 700MM - 1600MM DIA. MAIN PIPE  
300MM DIA. WASHOUT PIPE FOR 1800MM - 2200MM DIA. MAIN PIPE
  - ALL MANHOLE COVERS AND FRAME SHALL BE OF HEAVY DUTY DUCTILE IRON TO GRADE A1 UNDER SS30.  
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.
  - TRIMMER BARS SHALL BE PROVIDED FOR WALL OPENINGS, IN ACCORDANCE TO DETAILS IN DRAWINGS NO. PUB/WSN/STD/211.
  - 90MM 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.
  - UPVC DUCTS SHALL BE INCORPORATED INTO THE CHAMBER WALLS, FOR LAYING OF CABLES, BY OTHERS. THE DUCTS SHALL BE SEALED WITH WATERPROOF SEALING COMPOUND. POSITION OF DUCTS ARE INDICATIVE AND SHALL BE CONFIRMED ON SITE.
  - OPENINGS PRECAST CONCRETE COVER SLAB SHALL BE CENTRED OVER THE VALVE SPINDLES. POSITION OF OPENINGS ARE INDICATIVE AND SHALL BE CONFIRMED ON SITE.
  - LENGTHENING KEYS FOR VALVES SHALL EXTEND WITHIN 150MM BELOW THE SOFFIT OF THE PRECAST CONCRETE COVER SLAB.
  - SAFETY CAGE SHALL BE PROVIDED FOR ALL LADDERS EXCEEDING 3M HEIGHT (REFER TO PUB/WSN/STD/209).
  - ASSEMBLY FOR LEAK DETECTION SENSORS ARE TO BE INSTALLED AT NOT MORE THAN 750m C/C ALONG THE PIPELINE. (THE LEAK DETECTION SENSORS WILL BE INSTALLED UNDER SEPARATE CONTRACT).
  - FOR CONNECTION OF WASHOUT PIPE TO EXISTING DRAIN, PLEASE REFER TO PUB/WSN/STD/119.
  - ALL PIPES WITHIN THE CHAMBER SHALL BE OF MILD STEEL. THE PIPE FROM CHAMBER TO DRAIN SHALL BE OF DUCTILE IRON.

ISSUED: NOV 2020	SCALE	DRAWING NO.
LAST REVIEWED: AUG 2021	AS SHOWN	PUB/WSN/STD/110

**TYPICAL WASHOUT CHAMBER (UP TO 6M DEPTH)**