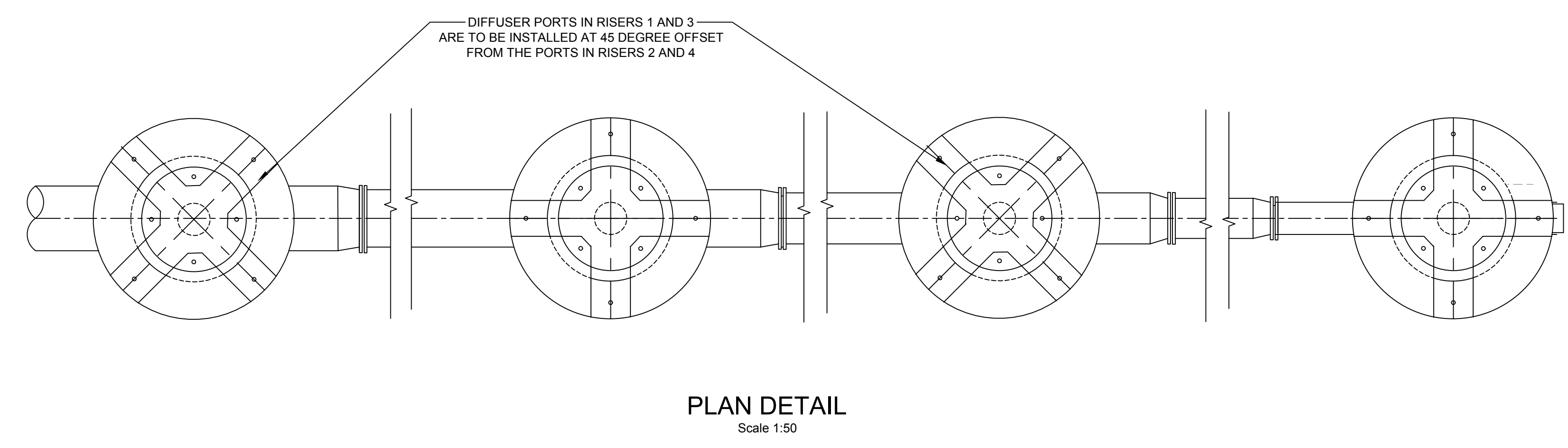
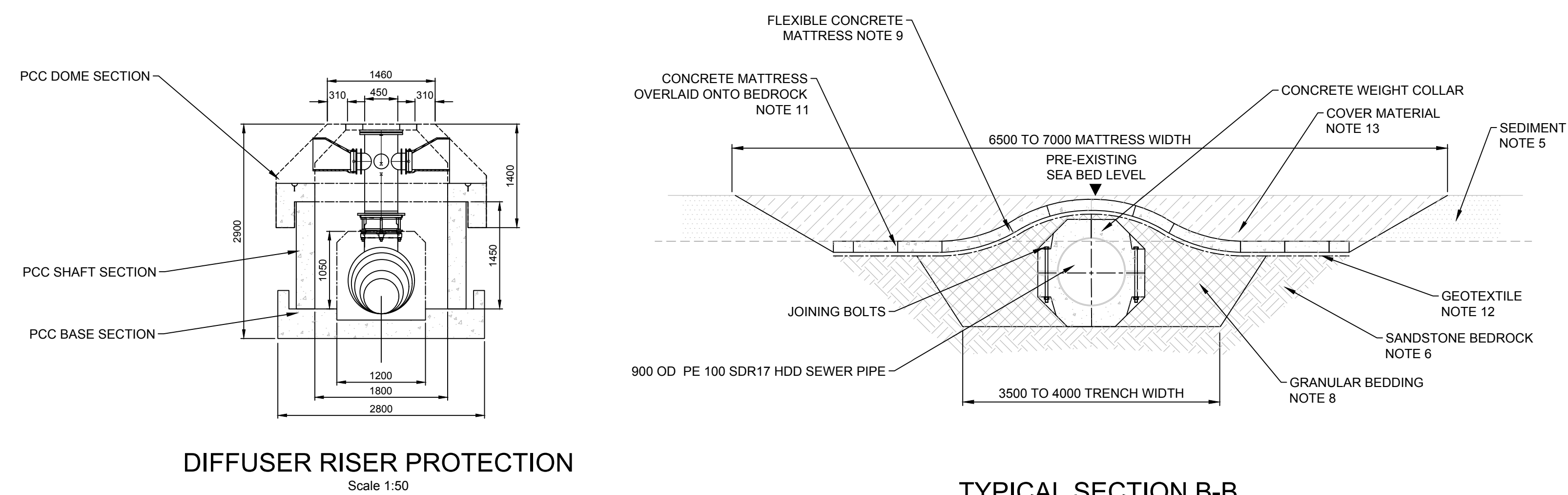
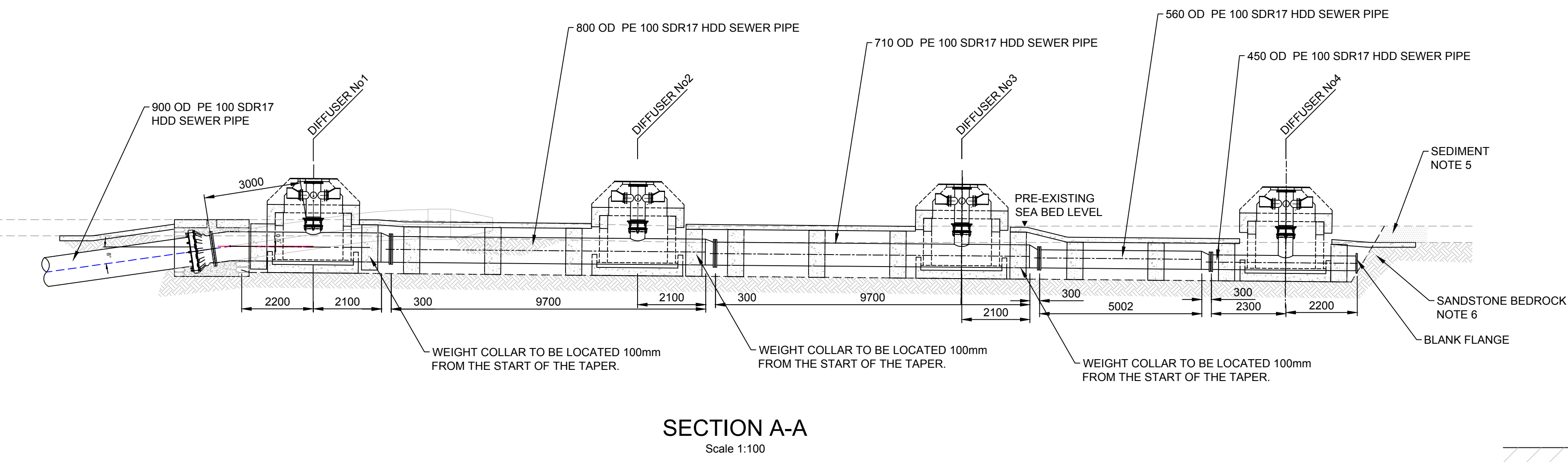
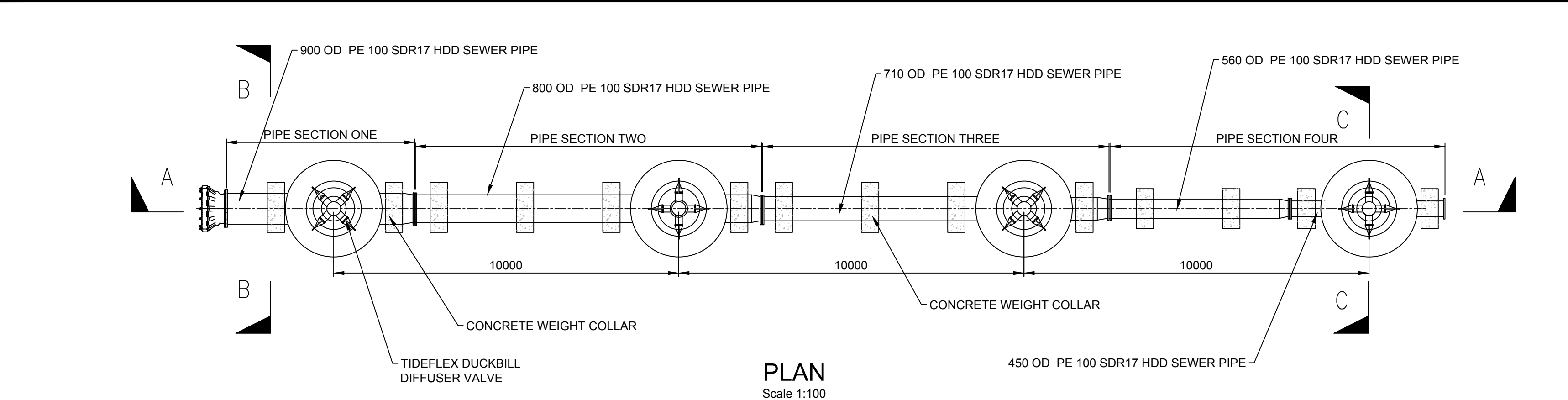
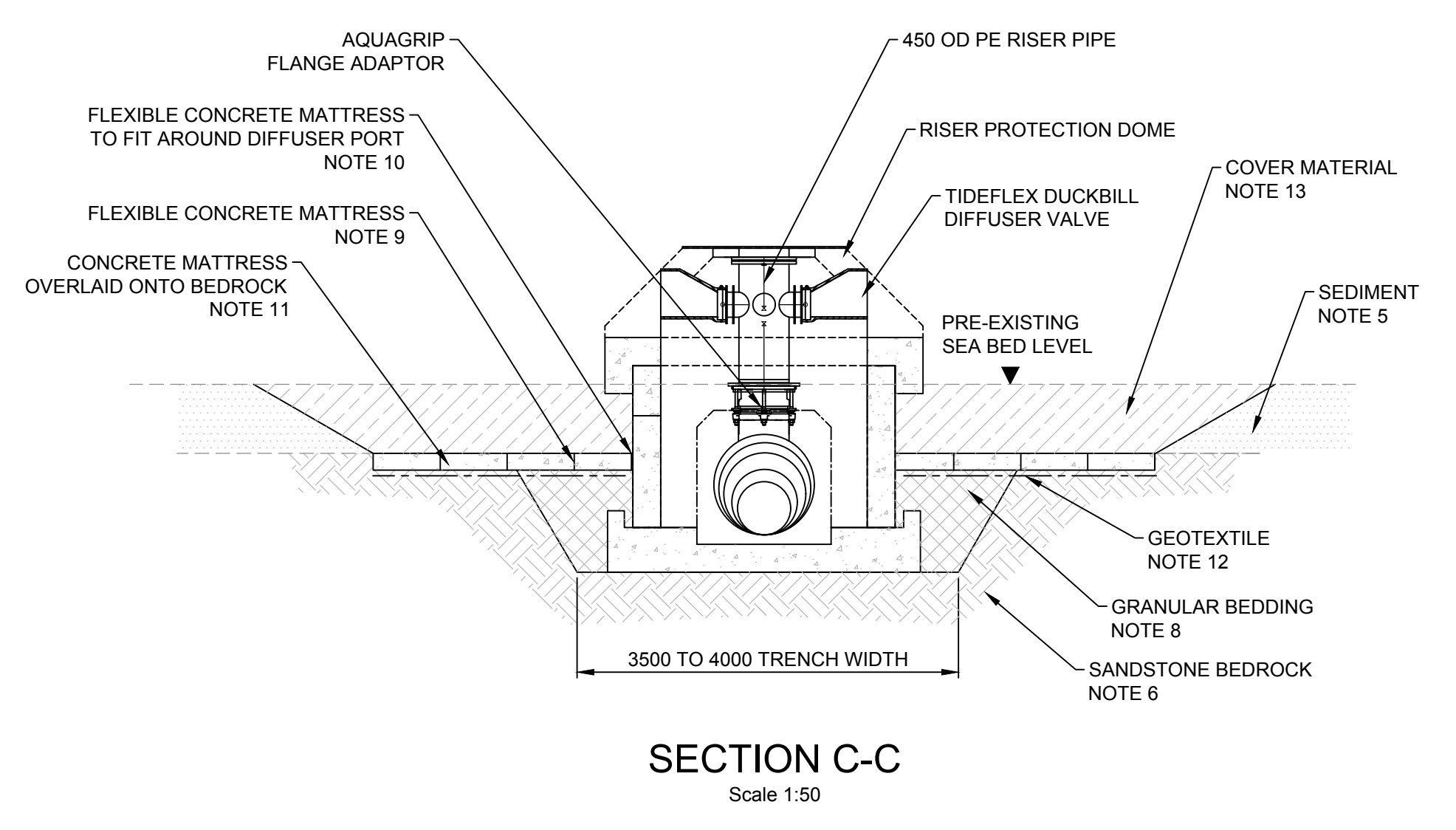
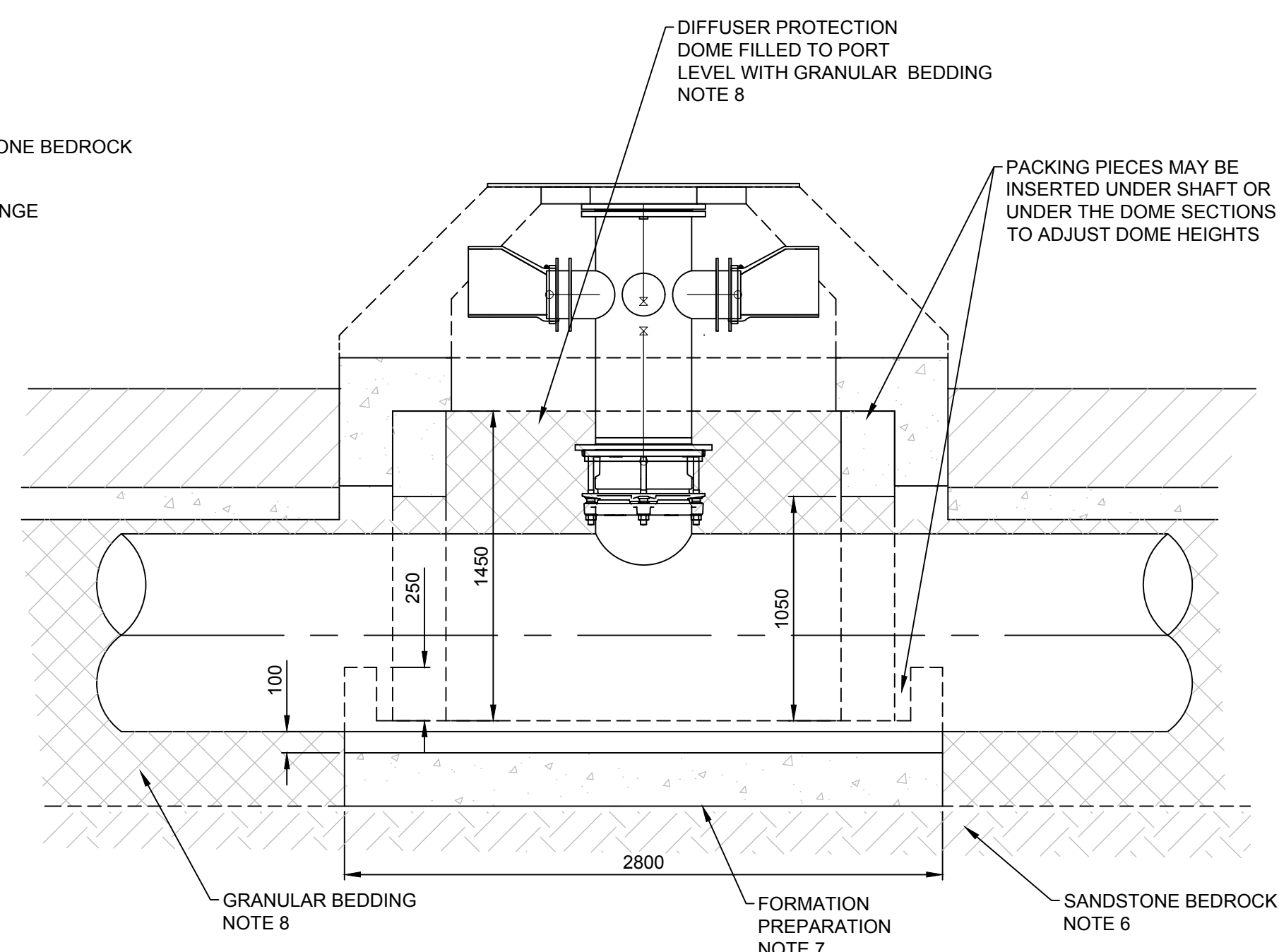




- NOTES (CONTINUED):
9. FLEXIBLE CONCRETE EROSION PROTECTION MATTRESS SHALL COMPRISE A LAYER OF INTERCONNECTED PRE-CAST CONCRETE BLOCKS, SUPPLIED IN AND INSTALLED IN RECTANGULAR PANELS. THE PRODUCT SHALL BE DESIGNED AND SUPPLIED FOR USE IN MARINE ENGINEERING APPLICATIONS. INDICATIVE SPECIFICATION - MIN. THICKNESS 150 MM, MIN. WEIGHT (BY AREA OF CONNETED MATTRESS) 225 KG/M², MIN. CONCRETE STRENGTH 50 N/MM² AT 28 DAYS, MIN. CEMENT CONTENT 370 KG/M³, SULPHATE RESISTANCE TO CLASS DS-2, LINKAGE BY POLYESTER TENDONS. THE PRODUCT WHICH THE CONTRACTOR PROPOSES TO INSTALL SHALL BE SUBJECT TO THE PRIOR APPROVAL OF THE DESIGNER.
 10. SOME EROSION PROTECTION MATTRESS PANELS WILL NEED LOCAL CUT-AWAY TO ACCOMMODATE THE CIRCULAR DIFFUSER PORTS. ANY CONNECTING TENDONS WITHIN AS-SUPPLIED PANELS WHICH NEED TO BE CUT SHALL BE SECURELY REFIXED AT THE NEW END BLOCK USING A METHOD AGREED WITH THE SUPPLIER.
 11. A LEVEL BENCH IN THE SANDSTONE BEDROCK SURFACE MIN. 1.0 M WIDE SHALL BE PREPARED EITHER SIDE OF THE DIFFUSER INSTALLATION TRENCH. ANY OVERCUT SHALL BE CLEARED OF SILT AND INFILLED WITH TYPE 'A' GRANULAR BEDDING. THE FLEXIBLE CONCRETE MATTRESS SHALL BE PLACED ONTO THAT LEVEL BENCH, AS INDICATED ON THE CROSS SECTIONS.
 12. A FILTER-SEPARATOR GEOTEXTILE SHALL BE FIXED TO THE UNDERSIDE OF EACH SECTION OF THE FLEXIBLE CONCRETE MATTRESS. THE GEOTEXTILE SHALL BE WOVEN OR NON-WOVEN POLYPROPYLENE WITH MINIMUM TENSILE STRENGTH 5.0 KN/M AT 10 % ELONGATION AND APPARENT OPENING SIZE 60-200 MICRONS, DEPLOYED WITH MINIMUM 400 OVERLAPS.
 13. FINAL REINSTATEMENT ABOVE THE FLEXIBLE CONCRETE MATTRESS TO PRE-EXISTING SEA BED PROFILE SHALL BE CARRIED OUT WITH COVER FILL MATERIAL COMPRISING SELECTED AS-DUG GRANULAR (SAND/GRAVEL/COBBLE-SIZED) ARISING FROM THE DIFFUSER INSTALLATION AREA EXCAVATION.
 14. WEIGHT COLLARS TO BE SPACED A MAXIMUM OF 2.5m APART.
 15. WEIGHT COLLARS ARE DESIGNED SO THAT THE SEALED SUBMERGED UPLIFT OF EACH PIPE SECTION IS GREATER THAN THE WEIGHT OF TWO COLLARS. FOR PIPE SECTION FOUR, THE UPLIFT IS GREATER THAN THE WEIGHT OF ONE 560 PLUS ONE 450 WEIGHT COLLAR.



- NOTES:
1. ALL LEVELS ARE IN METRES BELOW ORDNANCE DATUM (mBOD) UNLESS STATED OTHERWISE.
 2. THIS DRAWING TO BE READ IN CONJUNCTION WITH :
53488-PFC-01-XX-DR-C-0015
DIFFUSER SECTION LOCATION PLAN
53488-PFC-01-XX-DR-C-0018
CONNECTION PROPOSALS BETWEEN AS-LAID HDD PIPE & PROPOSED DIFFUSER SECTION
53488-PFC-01-XX-DR-C-0020
PROPOSED DIFFUSER RISER PROTECTION DOMES
53488-PFC-01-XX-DR-C-0021
DETAILS OF PROPOSED DIFFUSER WEIGHT COLLARS PLAN AND SECTIONS
53488-PFC-01-XX-DR-C-0022
DETAILS OF PROPOSED DIFFUSER RISER PORT UNIT PLAN AND SECTION
53488-PFC-01-XX-DR-C-0023
CONSTRUCTION DETAILS BETWEEN HDD PIPE AND PROPOSED DIFFUSER SECTION
 3. FOR THE DIFFUSER CONNECTION TO THE HORIZONTALLY DIRECTIONALLY DRILLED OUTFALL PIPELINE, SEE THE DETAIL ON DRAWING 53488-PFC-01-XX-DR-C-0018.
 4. SEA BED PROFILE HAS BEEN EXTRAPOLATED FROM THE BATHYMETRY SURVEY DATA BY SHORELINE SURVEYS LTD 2022 BATHYMETRY SURVEY DRAWING J2014/01.
 5. SEA-BED SEDIMENT IS ANTICIPATED FROM THE EVIDENCE OF NEARBY GROUND INVESTIGATION BOREHOLE MBH03 TO PREDOMINANTLY COMPRISE SAND. A LOCAL SEDIMENT THICKNESS (UNVERIFIED) OF APPROX. 0.5 M WAS ADVISED BY THE MARINE CONTRACTOR PREPARING THE HDD BREAKOUT AREA AND THAT THICKNESS HAS BEEN SHOWN INDICATIVELY ON THESE DRAWINGS. LOCAL VARIATION IN THICKNESS SHALL BE ANTICIPATED.
 6. SANDSTONE BEDROCK IS ANTICIPATED FROM THE EVIDENCE OF NEARBY GROUND INVESTIGATION BOREHOLE MBH03 TO COMPRISE VERY WEAK CLOSE TO MEDIUM SUB-HORIZONTALLY BEDDED SANDSTONE, WITH OCCASIONAL MUDSTONE INTERBEDS. REFER TO THE GROUND INVESTIGATION REPORT FOR FURTHER DETAILS.
 7. THE SANDSTONE FORMATION SURFACE FOR THE DIFFUSERS SHALL BE GRADED AS CLOSE TO THE SCHEDULED FORMATION LEVEL AS THE WORKING CONDITIONS ALLOW. ANY OVERCUT SHALL BE CLEARED OF SILT AND INFILLED WITH GRANULAR BEDDING MATERIAL.
 8. THE DIFFUSER PIPES AND COLLARS SHALL BE PROVIDED WITH A CLASS S (TERMINOLOGY OF WIS 4-08-02:1995 + 2008 AMENDMENT AND BS EN 1295-1:1995) SURROUND OF GRANULAR BEDDING MATERIAL. THE USE OF 20 MM TO 5 MM GRADED GRAVEL AND SAND IS ANTICIPATED BY THE DESIGNER. SOURCE APPROVAL DETAILS OF THE MATERIAL WHICH THE CONTRACTOR PROPOSES TO USE SHALL BE PROVIDED TO THE DESIGNER FOR PRIOR APPROVAL.

C01	CONSTRUCTION ISSUE	TDL	CJ	AP	AP	25.04.24
P02	FOR TENDER	TDL	CJ	LW	LW	03.04.24
P01	INITIAL ISSUE	TDL	CJ	AP	AP	21.03.24
REV	DESCRIPTION	DRN	DES	CHK	APP	DATE

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Project		EXMOUTH SEA OUTFALL			
Drawing Title		PROPOSED DIFFUSER ARRANGEMENT PLAN & SECTIONS			
Drawing Status		CONSTRUCTION ISSUE			
		Name		Date	Status Code
Drawn		T.LIVINGSTONE		25.04.2024	S4
Designed		C. JAMES		25.04.2024	Scale
Eng Chk		A.PUDWELL		25.04.2024	AS SHOWN
Approved		A.PUDWELL		25.04.2024	Revision
					C01
Drawing No.					
53488 -PFC- 01 - XX - DR - C - 0019					