

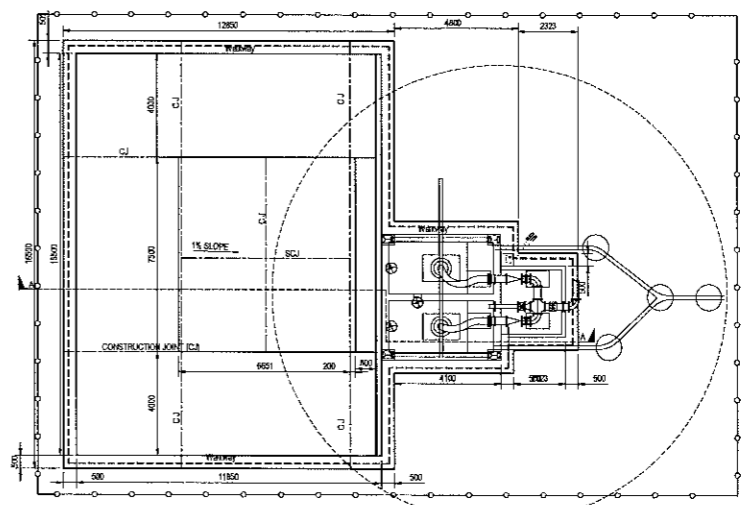
ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED ON SITE BY THE CONTRACTOR BEFORE COMMENCING ANY WORK.

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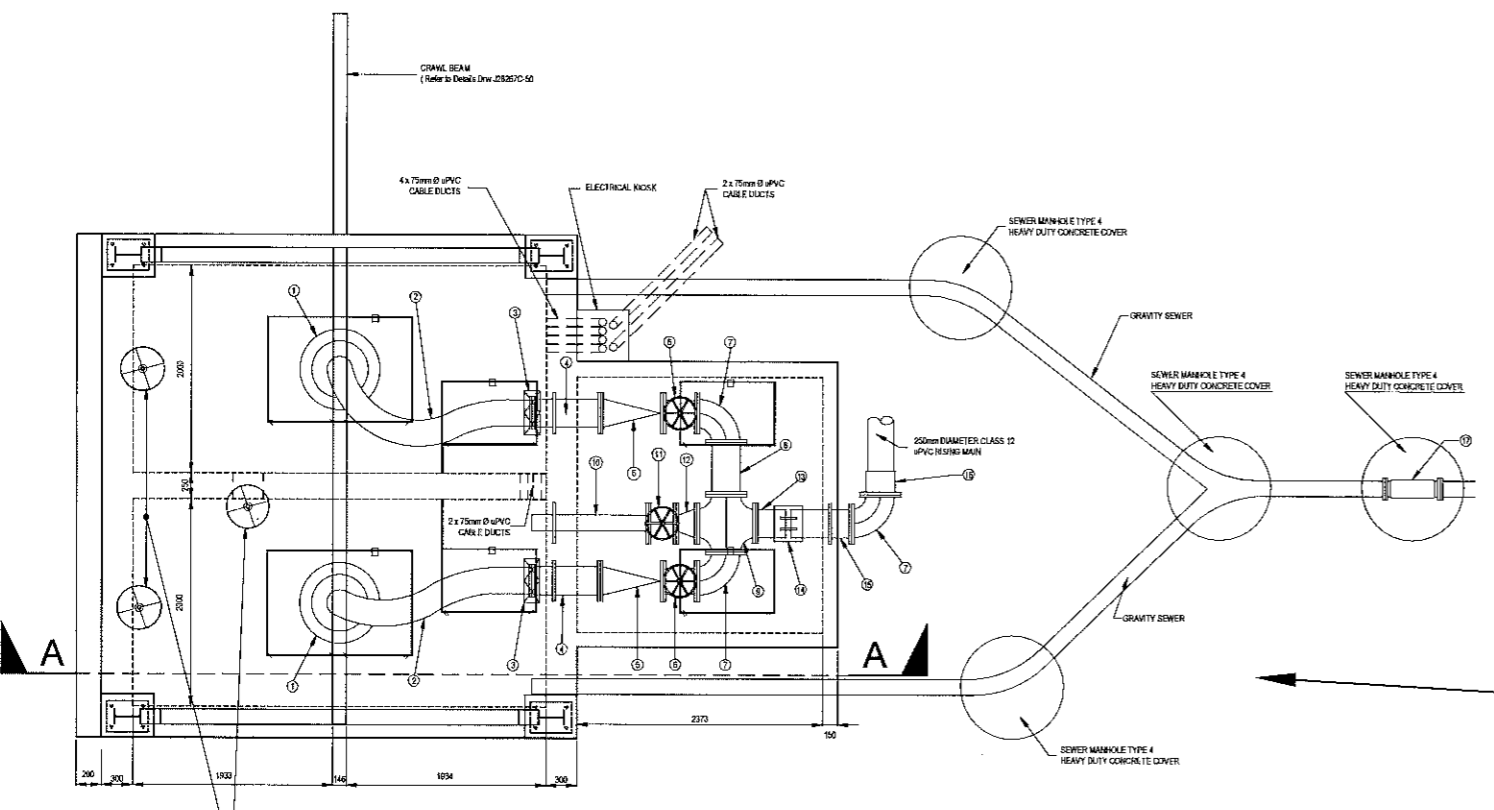
ON ORIGINAL

- GENERAL NOTES:**
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS.
 2. DIMENSIONS ARE TO BE CHECKED ON SITE.
 3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
 4. 80mm BLANKING LAYER TO BE PLACED BELOW ALL GRADE LEVEL SLABS UNLESS OTHERWISE SPECIFIED.
 5. ALL ENDOVATIONS TO BE INSPECTED BY ENGINEER PRIOR TO ANY CONCRETE BEING CAST.
 6. COMPACTION OF IN-SITU MATERIAL UNDER STRUCTURES TO BE UNDERTAKEN AS INSTRUCTED BY THE ENGINEER AFTER INSPECTION OF 1:6 TO 1:8 SLOPES PLATFORM.
 7. CONTRACTOR TO CONFIRM LEVELS WITH ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 8. BEFORE COMMENCING WORK THE MANUFACTURE OF ALL STEELWORK COMPONENTS MUST BE CHECKED ON SITE.
 9. ALL STEELWORK TO BE HOT DIP GALVANISED.
 10. STEEL FITTINGS AND PIPEWORK TO BE HOT DIP GALVANISED (HDS) AND PAINTED WITH AN APPROVED SOLUBLE FORM PAINT SYSTEM AS SPECIFIED IN THE DOCUMENT AND THE DRAWING. ALL STEELWORK WHICH IS TO BE HDG AND THEN PAINTED SHALL NOT BE PASSED DURING THE HDG PROCESS.
 11. ALL PIPEWORK, VALVES, SUPPORT BRACKET, ETC. ARE TO BE SUPPLIED UNDER A SEPARATE CONTRACT BY THE MECHANICAL AND ELECTRICAL PLANT CONTRACTOR.
 12. POSITION AND SIZE OF ALL HOLES, POCKETS, CUTS, ETC. MUST BE REFERENCED ON SITE BETWEEN THE CIVIL AND PLANT CONTRACTORS.
 13. THE ENGINEER TO INSPECT PIPE SPECIALS AT EACH PHASE OF PREPARATION AND APPLICATION OF PAINT SYSTEM.
 14. ALL BOLTS, WASHERS, NUTS, ETC. SHALL BE STAINLESS STEEL. NOT WITHSTANDING THESE REQUIREMENTS, THE CONTRACTOR SHALL VERIFY THAT THE MATERIAL OF THE BOLTS, WASHERS AND NUTS USED WILL NOT CAUSE ANY GALVANIC ACTION BETWEEN THEMSELVES AND THE SURROUNDING MATERIAL. SHALL GALVANIC ACTION BE POSSIBLE, THE CONTRACTOR SHALL PROVIDE SUITABLE NON-METALLIC BUSHES AND WASHERS FOR SUCH BOLTS.
 15. ALL CONCRETE SHALL BE OF THE FOLLOWING GRADES AND MIN. 28 DAY COMPRESSIVE STRENGTHS:
 - FOUNDATION WALLS - 35 MPa / f15
 - FLOORS - 35 MPa / f15
 - FLOORS - 35 MPa / f15
 16. CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:
 - FOUNDATIONS - 50mm
 - WALLS - 50mm
 - FLOORS - 50mm
 NOTE THAT CLEAR CONCRETE COVER BE MAINTAINED BY THE USE OF CONCRETE COVER BLOCKS MANUFACTURED FROM CONCRETE WITH THE SAME STRENGTH AS THE UNITS IN WHICH IT IS INCORPORATED ON THE BASE OF A MINIMUM OF ONE COVER BLOCK PER 0.5 SQUARE METRE.
 17. ALL REINFORCEMENT SHALL COMPLY WITH SANS 1008, TYPE C, CLASS 2 GRADE 1.
 18. WHERE IT IS NECESSARY TO UTILISE CONSTRUCTION JOINTS, SUCH JOINTS SHALL BE INSPECTED BY THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 19. UNLESS OTHERWISE STATED THE CORNERS OF ALL EXPOSED CONCRETE SHALL BE PROVIDED WITH A 20mm x 20mm CHAMFER.
 20. THE ACCURACY OF DIMENSIONS SHALL BE IN ACCORDANCE WITH SANS 1008:2005 1.
 21. ALL FORMED SURFACES SHALL BE AS FOLLOWS:
 - EDGES OF FOUNDATION - 100mm
 - ALL WALLS ON BOTH SURFACES - 100mm
 - 22. HANDRAILING MUST NOT BE PAINTED.
 - 23. ALL FENCE RELATED STEEL MANUFACTURING WORK TO BE HOT DIP GALVANISED.



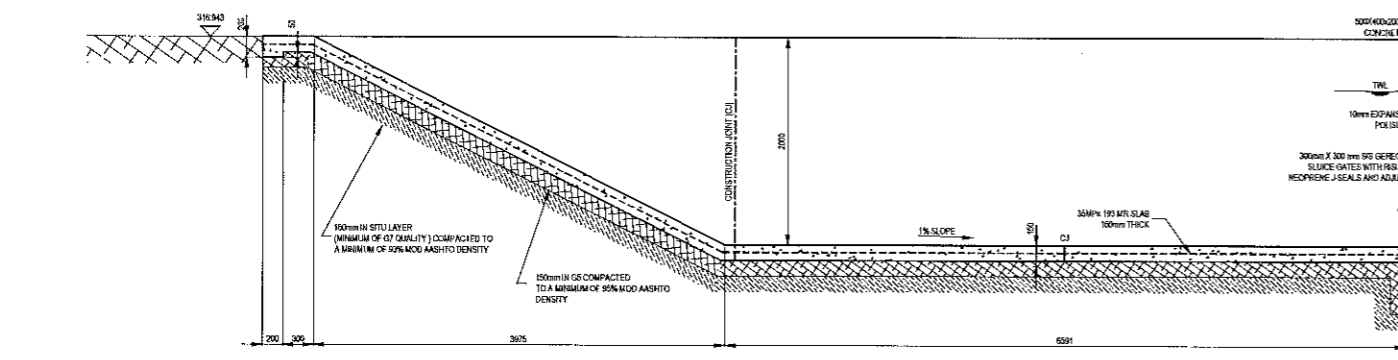
PUMP STATION 1 LAYOUT
SCALE 1:50

REFER TO



PUMP STATION 1
SCALE 1:25

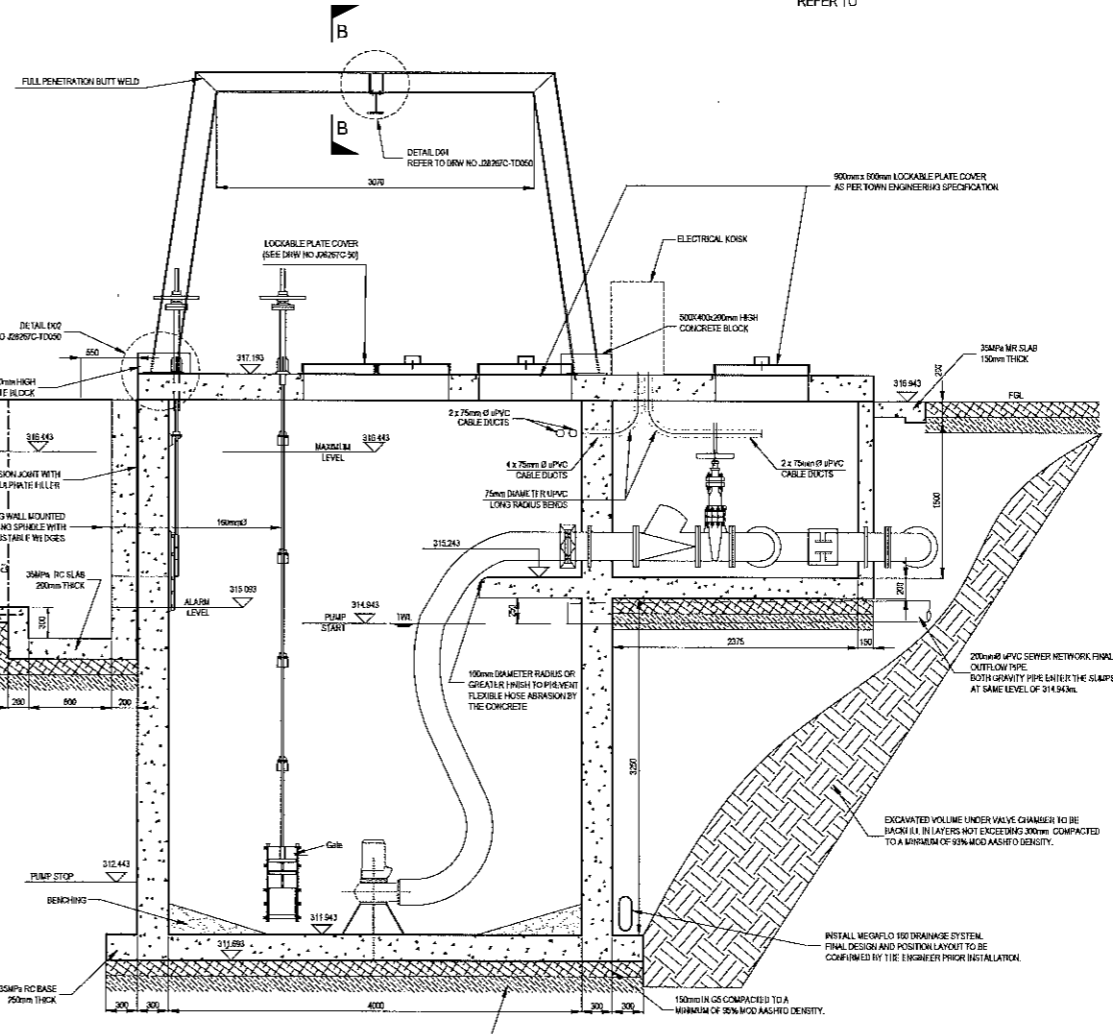
300mm x 300mm GS GIBB WALL MOUNTED SLICE GATES WITH RISING SPINDLE WITH NO OFFLINE JSEALS AND ADJUSTABLE WEDGES



SECTION A-A
SCALE 1:25

ITEM	DESCRIPTION	NO	APPROX. LENGTH (mm)
1	KSB KR100-3150220-65W - 60mm coils screw type impeller - 2002line	2	
2	250mm diameter Traco 25 bar reinforced flexible rubber base with quick coupling designed for 10 bar pressure to connect iron pipe to cast iron pipe	2	To be determined on site
3	250mm diameter quick coupling designed for 10 bar pressure to connect iron pipe to cast iron pipe	2	
4	200mm diameter GMS flanged end end only straight pipe	2	664
5	200mm diameter AVX flanged end end only straight pipe	2	500
6	250mm diameter AVX gate valve with rising stem	2	330
7	250mm diameter AVX gate valve with rising stem	2	470
8	250mm diameter GMS flanged straight pipe	1	500
9	250mm diameter GMS cross spacer	1	545 in both directions
10	150mm diameter GMS 1 flanged end end only straight pipe	1	1122
11	150mm diameter AVX gate valve with rising stem	1	267
12	250mm x 150mm diameter GMS flanged end end only straight pipe	2	305
13	250mm diameter GMS 4 flanged end end only straight pipe	1	295
14	250mm diameter GMS cross spacer	1	600
15	250mm diameter GMS 4 flanged end end only straight pipe	2	600
16	250mm diameter GMS 4 flanged end end only straight pipe	1	540
17	110mm diameter 110mm motor cable - 0.2 kV motor standard, 25.1 conductor, layup cable braid and conductors, 120mm diameter outer, seal working pressure up to 5.0 bar	1	540

NOTE:
1. ALL DIMENSIONS TO BE CHECKED ON SITE - (FINAL RESPONSIBILITY WITH THE CONTRACTOR)
2. ALL PIPES ARE TO BE MANUFACTURED FROM MILD STEEL AND GALVANISED UNLESS OTHERWISE STATED.
3. SANS 941, BS 4049 DRILLING



0	JULY 2013	ISSUED FOR TENDER	11	11
No	Date	Drawn	Checked	Scale
<p>DEPARTMENT OF HUMAN SETTLEMENTS</p> <p>hUMAN SETTLEMENTS</p> <p>REPUBLIC OF SOUTH AFRICA</p> <p>GIBB ENGINEERING & SCIENCE</p> <p>Project: Ext 11 Pump Station Drawing: Pump Station 1 Layout and Details</p> <p>Author: [Name] Designer: [Name] Checked: [Name] Reviewed: [Name]</p> <p>AS SHOWN JULY 2013</p> <p>J28267C / TD020 / 0</p>				

ISSUED FOR TENDER