



NOTE:
CRAWL BEAMS TO BE PROOF TESTED TO 1.0 TONS AND A TEST CERTIFICATE TO BE SUBMITTED TO THE ENGINEER.

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

This document and all the information herein remains the property of ARCADIS GIBB (Pty) Ltd and may not be copied, reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written permission of ARCADIS GIBB (Pty) Ltd. This document should not be relied on or used in conjunction with any other documents for which it was originally prepared and to which ARCADIS GIBB (Pty) Ltd has not been contracted as author or as a consultant. Refer to the contract for full terms and conditions.

ARCADIS GIBB (Pty) Ltd shall not be liable for the consequences of using this document other than for the purposes for which it was commissioned. Any use not intended by the author or the contractor for such other purposes, will be such use of reference to be taken to confirm its agreement to ARCADIS GIBB (Pty) Ltd, for all risk of damage resulting therefrom.

- 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. DOWN BEARING LAYERS TO BE PLACED BELOW ALL GRADING LEVELS UNLESS OTHERWISE SPECIFIED.
 5. ALL EXCAVATIONS TO BE INSPECTED BY ENGINEER PRIOR TO ANY CONCRETE BEING PLACED.
 6. COMPARISON OF INSTANT MATERIAL UNDER STRUCTURES TO BE INSTALLED AS INSTRUCTED BY THE ENGINEER AFTER INSPECTION OF THE FOUNDING PLATFORM.
 7. CONTRACTOR TO CONFIRM LEVELS WITH ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 8. BEFORE COMMENCING ANY THE MANUFACTURE OF ALL STEELWORK DIMENSIONS MUST BE CHECKED ON SITE.
 9. ALL STEELWORK TO BE HOT DIP GALVANISED.
 10. STEEL FITTINGS AND FABRICATION TO BE HOT DIP GALVANISED (PICKLED AND PASSED THROUGH APPROVED QUALITY INSPECTION PAINT SYSTEM AS SPECIFIED IN THE DOCUMENT AND THE DRAWINGS. ALL STEELWORK WHICH IS TO BE REDDING THEN PAINTED SHALL BE PASSED DURING THE HOT PROCESS.
 11. ALL PIPEWORK, VALVES, SUPPORT BRACKETS, ETC. ARE TO BE SUPPLIED UNDER A SEPARATE CONTRACT BY THE MECHANICAL AND ELECTRICAL PLANT CONTRACTOR.
 12. POSITION AND SIZE OF ALL HOLES, PORTS, DUCTS, ETC. MUST BE DETERMINED ON SITE BETWEEN THE CIVIL AND PLANT CONTRACTORS.
 13. THE ENGINEER TO INSPECT PIPE SPECIES AT EACH PHASE OF PREPARATION AND APPLICATION OF PAINT SYSTEM.
 14. ALL BOLTS, WASHERS, NUTS, ETC. SHALL BE STAINLESS STEEL UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL VERIFY THAT THE MATERIAL OF THE BOLTS, WASHERS AND NUTS WILL NOT CAUSE ANY GALVANIC ACTION BETWEEN ITSELF AND THE UNDERLYING MATERIAL. SHOULD GALVANIC ACTION BE POSSIBLE, THE CONTRACTOR SHALL PROVIDE SUITABLE NON-METALLIC SLEEVES AND WASHERS FOR SUCH BOLTS.
 15. ALL CONCRETE SHALL BE OF THE FOLLOWING GRADES AND MIN. SLABS UNLESS OTHERWISE SPECIFIED:
FOUNDATION - 30 MPa / f_{cu}
WALLS - 30 MPa / f_{cu}
WALING SLABS - 30 MPa / f_{cu}
FLOORS - 30 MPa / f_{cu}
 16. CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS -
FOUNDATIONS - 50mm
WALLS - 40mm
FLOORS - 30mm
NOTE: THAT CLEAR CONCRETE COVER BE MAINTAINED BY THE USE OF CONCRETE COVER BLOCKS MANUFACTURED FROM CONCRETE WITH THE SAME STRENGTH AS THE CONCRETE IN WHICH IT IS INCORPORATED ON THE BASIS OF A MINIMUM OF ONE (1) COVER BLOCK PER EACH SQUARE METRE.
 17. ALL REINFORCEMENT SHALL COMPLY WITH SAND IRON, TYPE C, CLASS 2 GRADE 1.
 18. WHEN 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 CASTED CONCRETE SHALL BE FINISHED WITH A 20mm x 20mm CHAMFER.
 20. THE DEGREE OF ACCURACY SHALL BE IN ACCORDANCE WITH SANS 1000 SLEEVES.
 21. ALL FORMED SURFACES SHALL BE AS FOLLOWS -
BEDS OF FOUNDATION - ROUGH
ALL WALLS AND ROOF SURFACES - SMOOTH
22. HANDRAILS MUST NOT BE PAINTED.
 23. ALL FENCE RELATED STEEL MANUFACTURING WORK TO BE HOT DIP GALVANISED.

Rev	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Rev	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

DEPARTMENT OF HUMAN SETTLEMENTS

ENGINEERING & SCIENCE

GIBB

AS SHOWN JULY 2013

ENGCOBO EXT 11 PUMP STATION

PUMP STATION & RISING MAIN DETAILS

ISSUED FOR TENDER