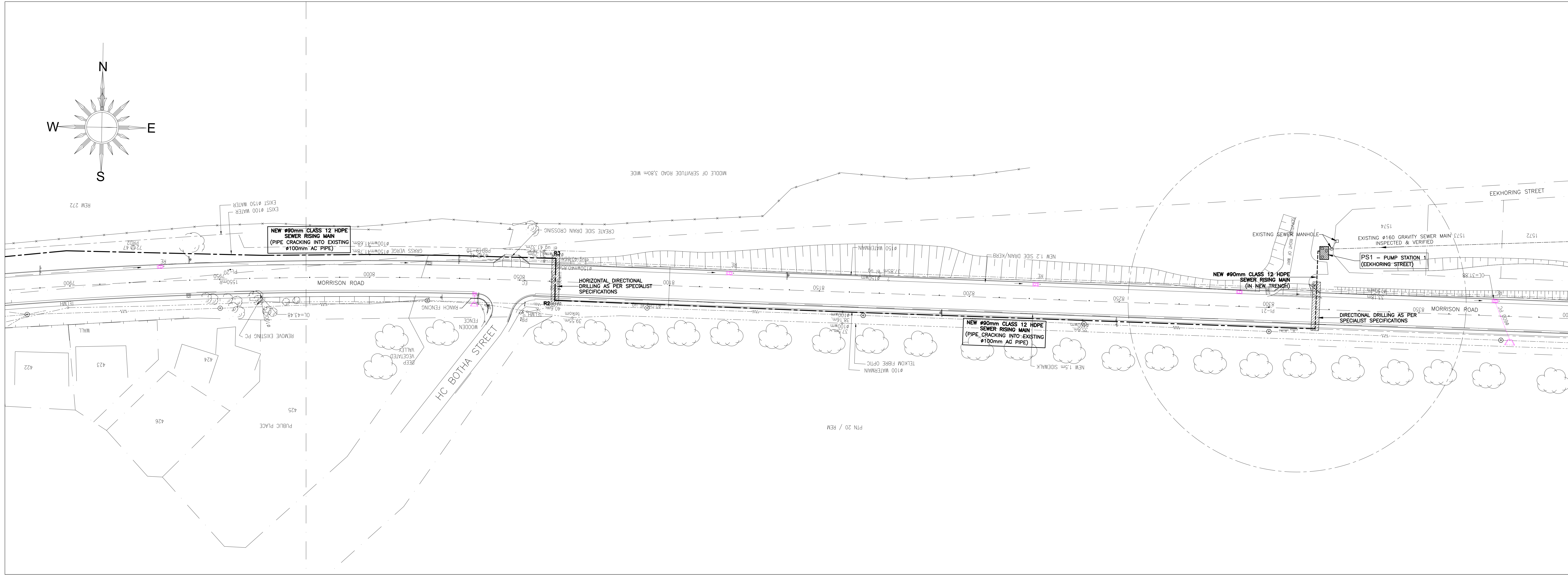
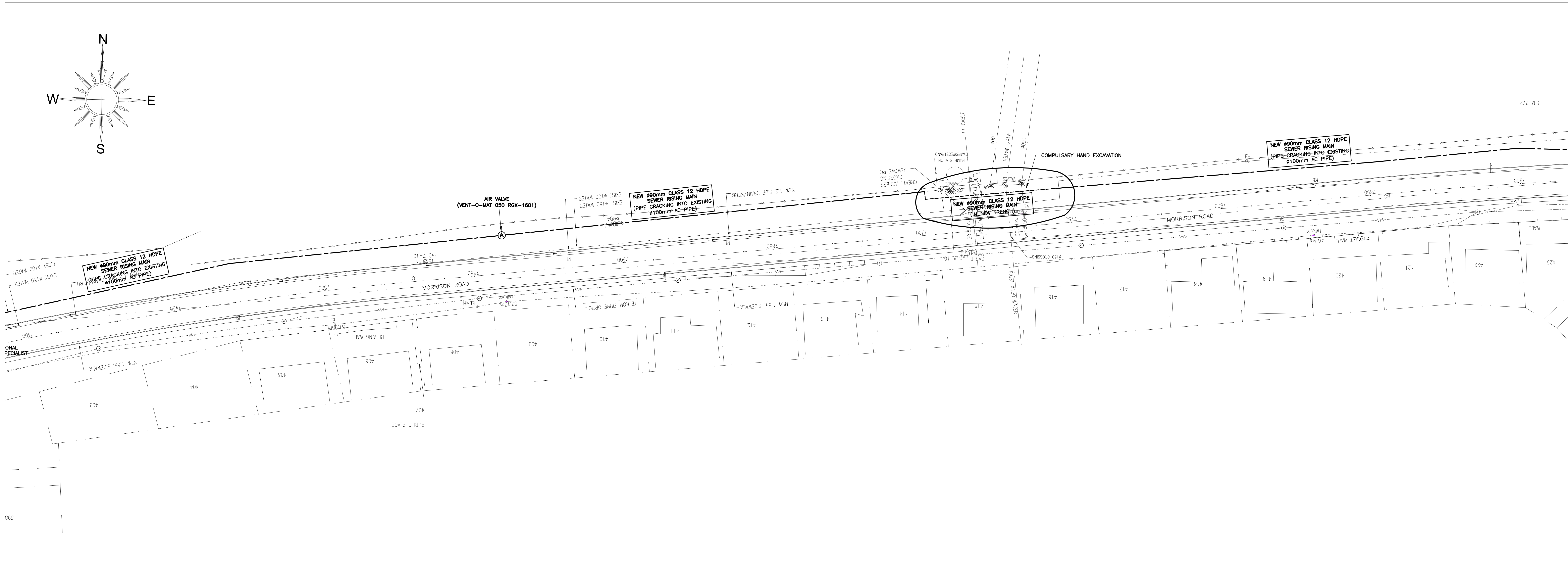




CHAINAGE: 8350 TO 7900
SCALE: 1 : 500



CHAINAGE: 7900 TO 7400
SCALE: 1 : 500

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GENERAL NOTES

1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK IS PUT IN HAND.
2. ALL MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATION, SABS 1000 AND THE STANDARDS REFERRED TO THEREIN.
3. CONCRETE:
STRENGTH, MAX. AGGREGATE SIZE AND COVER:
BUILDING : CLASS 10MPa/10mm
FOUNDATIONS : CLASS 30MPa/10mm 50mm
SURFACE BEDS : CLASS 30MPa/10mm 30mm
SLABS AND BEAMS : CLASS 30MPa/10mm 30mm
COLUMNS : CLASS 30MPa/10mm 40mm
HORIZONTAL AND VERTICAL FORMED SURFACES: SMOOTH
(SABS 1200 G-CLASS II) UNDRAINED SURFACES(WITHOUT SLOPED).
WOOD/PAVED, ALL OTHER FORMED SURFACES: ROUGH, UNLESS OTHERWISE SPECIFIED.
4. COMPACTING TO BE DONE IN LAYERS NOT EXCEEDING 100mm.
5. FOUNDATIONS ARE DESIGNED FOR A MAXIMUM SAFE BEARING PRESSURE OF 150 kPa.
6. DESIGN HAS BEEN CARRIED OUT IN ACCORDANCE WITH SABS 0100, 0131, 0160, 0161, 0162, 0163 & 0164 & 0400 AS APPLICABLE.
7. ENGINEER TO APPROVE REINFORCEMENT & EXCAVATIONS PRIOR TO PLACING OF CONCRETE.
8. JOINTS IN BRICKWORK WALLS AS PER MURS SPECIFICATIONS OR AS INDICATED ON DRAWINGS.
9. PUMP STATION NOTES:
 1. ALL DIMENSIONS / SIZES / DIAMETERS / LENGTHS / LEVELS TO BE VERIFIED BEFORE ORDERING OR INSTALLING ANY COMPONENTS.
 2. THE ENGINEER TO APPROVE ALL WORKS.
 3. THE CONTRACTOR TO ADHERE TO ALL INSTALLATION & SAFETY REGULATIONS AS SPECIFIED BY THE MANUFACTURER.
 4. CONTRACTOR TO WORK IN CONJUNCTION WITH GEORGE MUNICIPALITY, THE MANUFACTURER, ENGINEER ON SITE.
 5. IF ANY DISCREPANCIES OR CHANGES ARISES IN ANY DETAIL OR DESIGN, THE ENGINEER NEEDS TO BE NOTIFIED A.S.A.P.
 6. PLINTH LEVELS AND FITMENT OF ALL COMPONENTS TO BE CHECKED BEFORE INSTALLATION.
 7. ALL CONCRETE WORKS 30 MPa.
 8. (eg THURST BLOCKS) TO OBTAIN 28 DAY STRENGTH.
 9. EMERGENCY OVERFLOW PIPE AND DETAIL TO BE DISCUSSED ON SITE.
 10. PUMPHOUSE FLOOR TO BE SCREEDED TO ALLOW FOR DRAINAGE TO MANHOLES.
 11. 400mm SQUARE POCKETS TO BE LEFT FOR PUDDLE FLANGES.
 12. DOORS TO BE AS PER DOOR SCHEDULE.
 13. ALL EXPOSED PIPEWORK TO HAVE CORROSION PROTECTION AS PER SUPPLIERS SPECS.
 14. BRICKWORK 230mm THICK, 2 No. STAINLESS STEEL BUTTERFLY VALVES PER SQUARE METER.
 15. CONSTRUCT 6 x 160mmØ SLEEVES AS PER LAYOUT FOR ELECTRICAL CABLES. THESE SLEEVES SHOULD BE SEALED AFTER CABLEING IS INSTALLED.
 16. SLEEVE LAYOUT SHOULD BE CONFIRMED BY MECHANICAL AND ELECTRICAL CONTRACTOR SPECIFICATIONS.
 17. CONSTRUCT 2 x 60 mm Ø SLEEVES FOR FRESH WATER FEED AS SHOWN & 2 x 110mm Ø SLEEVES FOR RIVER WATER FEED.
 18. CONSTRUCT A FLOW SWITCH AT TOP OF RISINGMAIN.
 19. MANHOLE COVER AND FRAMES TO BE OF TYPE 9E AND LOCKABLE.
 20. ALL ELECTRICAL PLUG POINTS, LIGHT FITTINGS, etc. AS PER ELECTRICAL ENGINEERS SPECIFICATIONS.

Rev	DESCRIPTION	INITIALS	SIGN	DATE
A	ISSUE FOR INFORMATION			18-06-25
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PROJECT
NEW SEWER PUMP STATIONS PIENAAR STRAND & EEKHORNG STREET

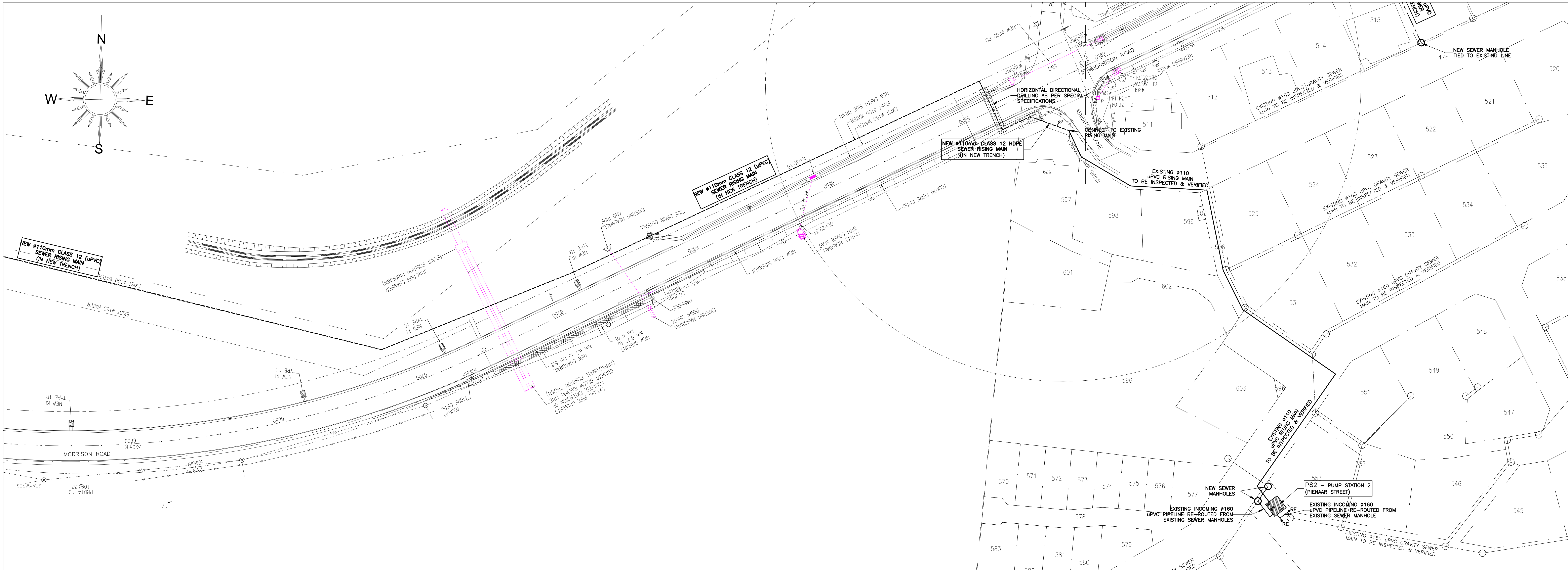
TITLE
**LAYOUT 1
CH 8350 – CH 7400**

DRW No. **G5219BA-CE-PS-001**

REV No. **A**



CHAINAGE: 7400 TO 7000
SCALE: 1 : 500



CHAINAGE: 7000 TO 6600
SCALE: 1 : 500

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- GENERAL NOTES
1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK IS PUT IN HAND.
 2. ALL MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATION, SANS 1000 AND THE STANDARDS REFERRED TO THEREIN.
 3. CONCRETE:
STRENGTH, MAX. AGGREGATE SIZE AND COVER:
FOUNDATIONS : CLASS 10MPa/10mm
SURFACE BEDS : CLASS 30MPa/10mm 50mm
SLABS AND BEAMS : CLASS 30MPa/10mm 30mm
COLUMNS : CLASS 30MPa/10mm 40mm
HORIZONTAL AND VERTICAL FORMED SURFACES: SMOOTH
(SABS 1200 G-CLASS II) UNDEFINED SURFACES(WITHOUT SLOES)
WOOD/PAVED, ALL OTHER FORMED SURFACES: ROUGH, UNLESS OTHERWISE SPECIFIED.
 4. COMPACTING TO BE DONE IN LAYERS NOT EXCEEDING 150mm.
 5. FOUNDATIONS ARE DESIGNED FOR A MAXIMUM SAFE BEARING PRESSURE OF 150 kPa.
 6. DESIGN HAS BEEN CARRIED OUT IN ACCORDANCE WITH SABS 0100, 0101, 0160, 0161, 0162, 0163 & 0164 & DATA AS APPLICABLE.
 7. ENGINEER TO APPROVE REINFORCEMENT & DIMENSIONS PRIOR TO PLACING OF CONCRETE.
 8. JOINTS IN BRICKWORK WALLS AS PER MURS SPECIFICATIONS OR AS INDICATED ON DRAWINGS.
- PUMP STATION NOTES:
1. ALL DIMENSIONS / SIZES / DIAMETERS / LENGTHS / LEVELS TO BE VERIFIED BEFORE ORDERING OR INSTALLING ANY COMPONENTS.
 2. THE ENGINEER TO APPROVE ALL WORKS.
 3. THE CONTRACTOR TO ADHERE TO ALL INSTALLATION & SAFETY REGULATIONS AS SPECIFIED BY THE MANUFACTURER.
 4. CONTRACTOR TO WORK IN CONJUNCTION WITH GEORGE MUNICIPALITY, THE MANUFACTURER, ENGINEER ON SITE.
 5. IF ANY DISCREPANCIES OR CHANGES ARISES IN ANY DETAIL OR DESIGN, THE ENGINEER NEEDS TO BE NOTIFIED A.S.A.P.
 6. PLINTH LEVELS AND FITMENT OF ALL COMPONENTS TO BE CHECKED BEFORE INSTALLATION.
 7. ALL CONCRETE WORKS 30 MPa (ex THURST BLOCKS) TO OBTAIN 28 DAY STRENGTH.
 8. EMERGENCY OVERFLOW PIPE AND DETAIL TO BE DISCUSSED ON SITE.
 9. PUMPHOUSE FLOOR TO BE SCREED TO ALLOW FOR DRAINAGE TO MANHOLES.
 10. 400mm SQUARE POCKETS TO BE LEFT FOR PUDDLE FLANGES.
 11. DOORS TO BE AS PER DOOR SCHEDULE.
 12. ALL EXPOSED PIPEWORK TO HAVE CORROSION PROTECTION AS PER SUPPLIER'S SPEC.
 13. BRICKWORK 230mm THICK, 2 No. STAINLESS STEEL BUTTERFLY VALVES PER SQUARE METER.
 14. CONSTRUCT 6 x 160mm Ø SLEEVES AS PER LAYOUT FOR ELECTRICAL CABLEING. THESE SLEEVES SHOULD BE SEALED AFTER CABLEING IS INSTALLED.
 15. SLEEVE LAYOUT SHOULD BE CONFIRMED BY MECHANICAL AND ELECTRICAL CONTRACTOR SPECIFICATIONS.
 16. CONSTRUCT 2 x 60 mm Ø SLEEVES FOR FRESH WATER FEED AS SHOWN & 2 x 110mm Ø SLEEVES FOR RIVER WATER FEED.
 17. CONSTRUCT A FLOW SWITCH AT TOP OF RISINGMAIN.
 18. MANHOLE COVER AND FRAMES TO BE OF TYPE 9E AND LOCKABLE.
 19. ALL ELECTRICAL PLUG POINTS, LIGHT FITTINGS, etc. AS PER ELECTRICAL ENGINEER'S SPECIFICATIONS.

Rev	DESCRIPTION	DRW	DATE	APP
A	ISSUE FOR INFORMATION	TH	18-06-25	NA
Rev	DESCRIPTION	DRW	DATE	APP
DESIGNED	T.H.		02-04-25	
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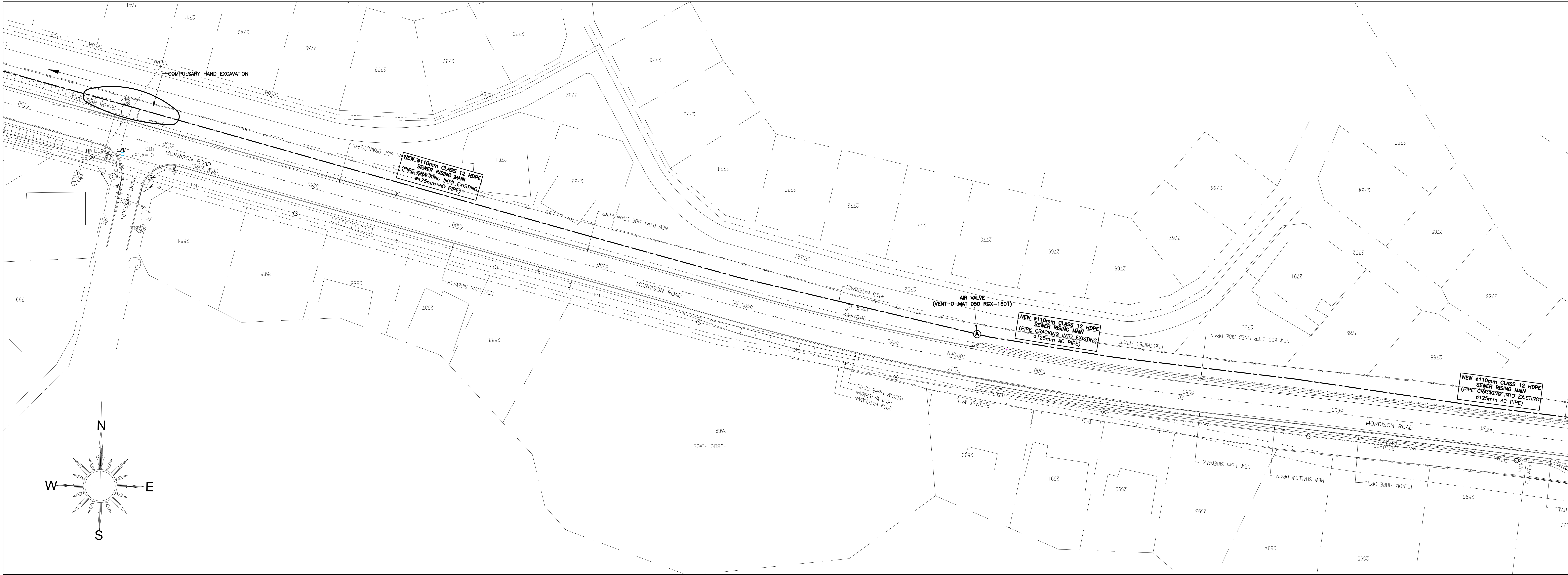
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PROJECT
NEW SEWER PUMP STATIONS PIENAR STRAND & EEKHORING STREET

TITLE
**LAYOUT 2
CH 7400 – CH 6600**

DRW No. **G5219BA-CE-PS-002**

REV No. **A**



CHAINAGE: 5650 TO 5150
SCALE: 1 : 500



CHAINAGE: 5150 TO 4650
SCALE: 1 : 500

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GENERAL NOTES

1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK IS PUT IN HAND.
2. ALL MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARDISED SPECIFICATION, SANS 1000 AND THE STANDARDS REFERRED TO THEREIN.
3. CONCRETE:
STRENGTH, MAX. AGGREGATE SIZE AND COVER:
FOUNDATIONS : CLASS 30MPa/15mm 50mm
SURFACE BEDS : CLASS 30MPa/15mm 30mm
SLABS AND BEAMS : CLASS 30MPa/15mm 30mm
COLUMNS : CLASS 30MPa/15mm 40mm
HORIZONTAL AND VERTICAL FORMED SURFACES: SMOOTH
(SABS 1200 G-CLASS II) UNFORMED SURFACES/WITHOUT SCAFFOLDING: ALL OTHER FORMED SURFACES: ROUGH, UNLESS OTHERWISE SPECIFIED.
4. COMPACTING TO BE DONE IN LAYERS NOT EXCEEDING 150mm.
5. FOUNDATIONS ARE DESIGNED FOR A MAXIMUM SAFE BEARING PRESSURE OF 150 kPa.
6. DESIGN HAS BEEN CARRIED OUT IN ACCORDANCE WITH SABS 0100, 0101, 0160, 0161, 0162, 0163 & 0164 & 0400 AS APPLICABLE.
7. ENGINEER TO APPROVE REINFORCEMENT & EXCAVATIONS PRIOR TO PLACING OF CONCRETE.
8. JOINTS IN BRICKWORK WALLS AS PER MBER SPECIFICATIONS OR AS INDICATED ON DRAWINGS.
9. PUMP STATION NOTES:
 1. ALL DIMENSIONS / SIZES / DIAMETERS / LENGTHS / LEVELS TO BE VERIFIED BEFORE ORDERING OR INSTALLING ANY COMPONENTS.
 2. THE ENGINEER TO APPROVE ALL WORKS.
 3. THE CONTRACTOR TO ADHERE TO ALL INSTALLATION & SAFETY REGULATIONS AS SPECIFIED BY THE MANUFACTURER.
 4. CONTRACTOR TO WORK IN CONJUNCTION WITH GEORGE MUNICIPALITY, THE MANUFACTURER, ENGINEER ON SITE.
 5. IF ANY DISCREPANCIES OR CHANGES ARISES IN ANY DETAIL OR DESIGN, THE ENGINEER NEEDS TO BE NOTIFIED A.S.A.P.
 6. PLINTH LEVELS AND FITMENT OF ALL COMPONENTS TO BE CHECKED BEFORE INSTALLATION.
 7. ALL CONCRETE WORKS 30 MPa (eg THURST BLOCKS) TO OBTAIN 28 DAY STRENGTH.
 8. EMERGENCY OVERFLOW PIPE AND DETAIL TO BE DISCUSSED ON SITE.
 9. PUMPHOUSE FLOOR TO BE SCREEDED TO ALLOW FOR DRAINAGE TO MANHOLES.
 10. 400mm SQUARE POCKETS TO BE LEFT FOR PUDDLE FLANGES.
 11. DOORS TO BE AS PER DOOR SCHEDULE.
 12. ALL EXPOSED PIPEWORK TO HAVE CORROSION PROTECTION AS PER SUPPLIERS SPEC.
 13. BRICKWORK 230mm THICK, 2 No. STAINLESS STEEL BUTTERFLY VALVES PER SQUARE METER.
 14. CONSTRUCT 6 x 160mmØ SLEEVES AS PER LAYOUT FOR ELECTRICAL CABLEING. THESE SLEEVES SHOULD BE SEALED AFTER CABLEING IS INSTALLED.
 15. SLEEVE LAYOUT SHOULD BE CONFIRMED BY MECHANICAL AND ELECTRICAL CONTRACTOR SPECIFICATIONS.
 16. CONSTRUCT 2 x 60 mm Ø SLEEVES FOR FRESH WATER FEED AS SHOWN & 2 x 110mm Ø SLEEVES FOR RIVER WATER FEED.
 17. CONSTRUCT A FLOW SWITCH AT TOP OF RISINGMAIN.
 18. MANHOLE COVER AND FRAMES TO BE OF TYPE 9E AND LOCKABLE.
 19. ALL ELECTRICAL PLUG POINTS, LIGHT FITTINGS, etc. AS PER ELECTRICAL ENGINEERS SPECIFICATIONS.

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A	ISSUE FOR INFORMATION			18-06-25
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PROJECT ENG.		C.C.A.		02-04-25
APPROVED		C.C.A.		02-04-25

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PROJECT
NEW SEWER PUMP STATIONS PIENAAR STRAND & EEKHORING STREET

TITLE
**LAYOUT 4
CH 5150 – CH 4650**

DRW No. **G5219BA-CE-PS-004**

REV No. **A**

GENERAL NOTES:

1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK BEGINS IN HAND.

2. ALL MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN STANDARDS FOR CONCRETE AND THE STANDARDS REFERRED TO THEREIN.

3. CONCRETE

STRENGTH, MAX. AGGREGATE SIZE AND COVER:

CONCRETE

FOUNDATIONS: CLASS 30MPa/15mm 50mm

SLAB SURFACES: CLASS 30MPa/15mm 30mm

WALLS AND BEAMS: CLASS 30MPa/15mm 30mm

COLUMNS: CLASS 30MPa/15mm 40mm

4. FORMWORK AND VERTICAL CURING

FORMWORK: TO BE CONFORMED TO THE SCS (SASS 1200 C-03) UNDEFORMED SURFACES/WITHOUT LINERS

WOODWORKED, ALL OTHER FORMED SURFACES: ROUGH

5. FINISHES

FINISHES TO BE DONE IN LAYERS NOT EXCEEDING 200mm

6. FOUNDATIONS ARE DESIGNED FOR A MAXIMUM SAFE BEARING CAPACITY OF 120 kPa.

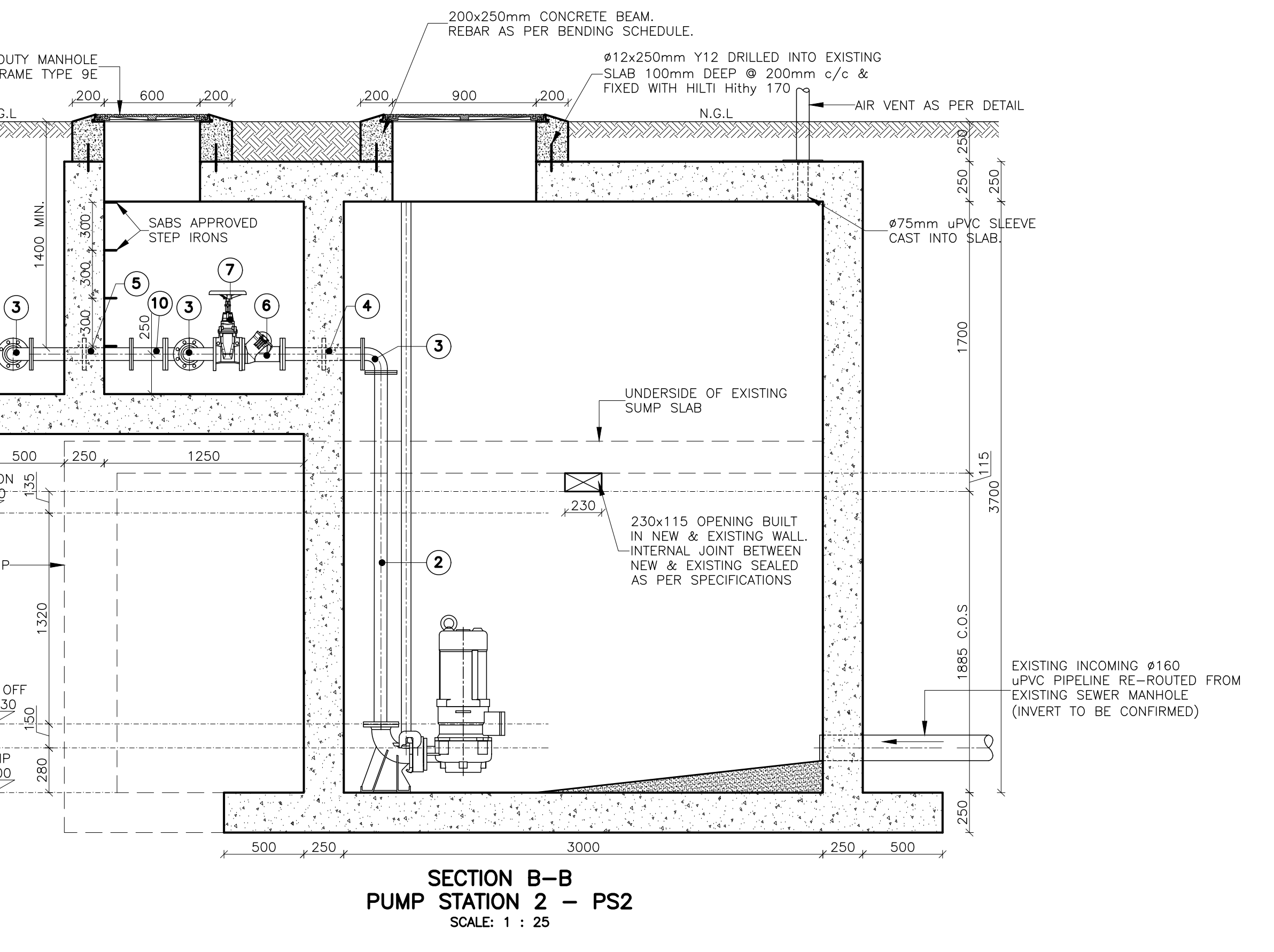
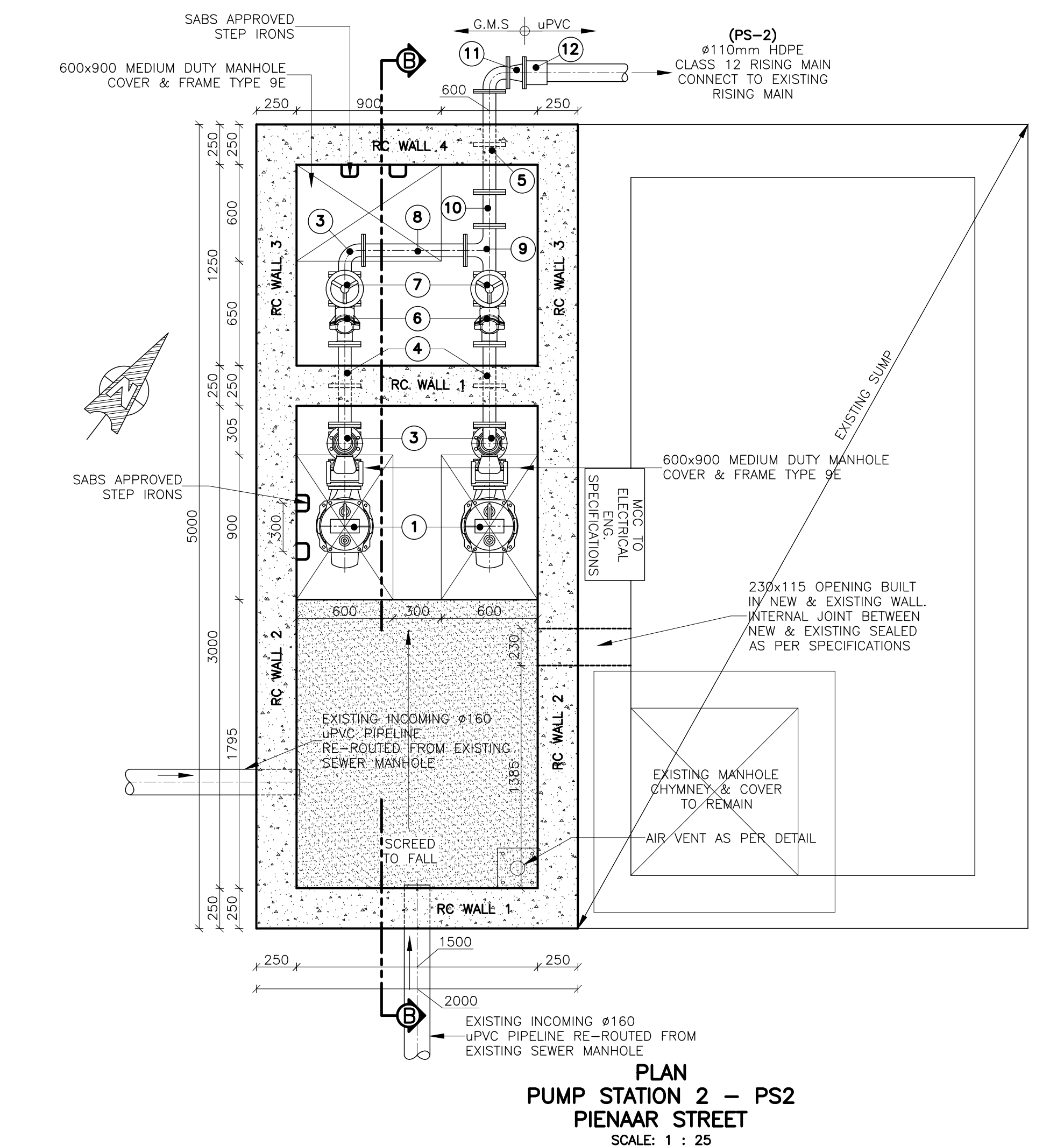
7. DESIGN OF THE GAREBET DRAIN IS IN ACCORDANCE WITH SASS 1000, 0117, 0160, 0161, 0162, 0163 & 0164

8. DO NOT EXCEED

9. ENGINEER TO APPROVE REINFORCEMENT & EXCAVATIONS FOR ALL WORK

10. JOINTS IN BROWCKWALK WALLS AS PER NHER SPECIFICATIONS & AS NOTED ON DRAWINGS.

PUMP STATION NOTES:



PUMP STATION SPECIALS			
ITEM	QTY	LENGTH	DESCRIPTION
1	2	PUMP	KRTF 80-317/372UEG-S (KSB PUMPS)
2	2	2300mm	ø 80mm FLANGED DISTANCE PIECE
3	4		ø 80mm x 90° FLANGED LONG RADIUS BEND
4	2	500mm	ø 80mm FLANGED DISTANCE PIECE WITH PUDDLE. BOTH ENDS FLANGED.
5	1	620mm	ø 80mm FLANGED DISTANCE PIECE WITH PUDDLE. BOTH ENDS FLANGED. (DENSO TAPE WRAPPED.)
6	2		ø 80mm x FLANGED BALL CHECK VALVE - PLACED UPRIGHT
7	2		ø 80mm FLANGED AVK GATE VALVE WITH HANDWHEEL
8	1	630mm	ø 80mm FLANGED DISTANCE PIECE
9	1		ø 80mm FLANGED GUSSETTED EQUAL T-PIECE
10	1	210mm	ø 80mm FLANGED DISTANCE PIECE
11	1		ø 80x110mm FLANGED REDUCER PIECE (ALL UNDERGROUND ELEMENTS DENSO TAPE WRAPPED.)
12	1		ø 110mm FLANGED ADAPTER FOR uPVC RISING MAIN (ALL UNDERGROUND ELEMENTS DENSO TAPE WRAPPED.)

NOTE:
 1. STEEL FABRICATED ITEMS TO BE HOT DIPPED GALVANISED. FLANGES 15000
 HOT DIPPED GALVANISED BOLTS & NUTS. ALL DISTANCE PIECES TO BE SIZED
 TO FIT ON SITE

A	ISSUE FOR INFORMATION	TH	18-06-25		NA
NO	DESCRIPTION	DRW	DATE		AP
	INITIALS	SIGN	DATE		
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DRAWN	T.H		02-04-		
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PROJECT ENG.	C.G.A		02-04-		
APPROVED	C.G.A		02-04-		

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PROJECT	NEW SEWER PUMP STATIONS PIENAAR STRAND & EEKHORING STREET
TITLE	PUMP STATIONS LAYOUTS, SECTIONS & DETAILS
DRAW No.	G5219BA-CE-PS-006

GENERAL NOTES:

1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK BEGINS IN HAND.

2. ALL MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN STANDARDS FOR CONCRETE AND THE STANDARDS REFERRED TO THEREIN.

3. CONCRETE

STRENGTH, MAX AGGREGATE SIZE AND COVER:

CONCRETE

FOUNDATIONS: CLASS 30MPa/15mm 50mm

SURFACE BEDS: CLASS 30MPa/15mm 30mm

WALLS AND BEAMS: CLASS 30MPa/15mm 30mm

COLUMNS: CLASS 30MPa/15mm 40mm

FOORSLABS AND VERTICAL PARTS: CLASS 30MPa/15mm 40mm

CONCRETE SHALL BE (UNLESS OTHERWISE SPECIFIED) SANS 1200 C-01) UNREINFORCED SURFACES/WITHOUT REINFORCEMENT.

4. ALL FORMS, ALL OTHER FORMED SURFACES, ROUGH OR FINISHED, SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS TO BE DONE IN LATES NOT EXCEEDING 20mm.

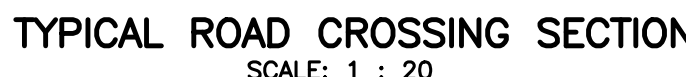
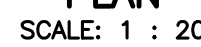
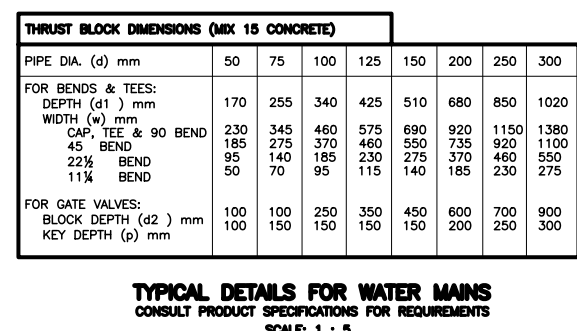
5. FOUNDATIONS ARE DESIGNED FOR A MAXIMUM SAFE BEARING CAPACITY OF 120 kPa.

6. DESIGN OF ALL GABLES TO BE IN ACCORDANCE WITH SANS 1000, 0117, 0160, 0161, 0162, 0163 & 0164 AND LOCAL CODE.

7. ENGINEER TO PROVIDE REINFORCEMENT & EXCAVATIONS TO BE IN ACCORDANCE WITH SANS 1000.

8. JOINTS IN BROWCKWALL MARKS AS PER NHER SPECIFICATIONS & AS NOTED ON DRAWINGS.

PUMP STATION NOTES:



TEMPORARY SIGN SCHEDULE

