GOLD COAST CITY COUNCIL
COURTNEY DRIVE STAGE 2
SEWAGE PUMP STATION

DRAWING LIST			
DRAWING NUMBER	REV DATE	REV	DESCRIPTION
20333-10000	16/04/24	A	TITLE & INDEX
20333-10001	16/04/24	A	SITE LAYOUT
20333-40001	16/04/24	A	HYDRAULIC SCHEMATIC DIAGRAM
20333-40002	16/04/24	A	P&ID
20333-10002	16/04/24	A	SPS - PLAN
20333-10003	16/04/24	A	SPS - SECTION
20333-10004	16/04/24	A	MISCELLANEOUS DETAILS
20333-10005	16/04/24	A	SPS - BILL OF MATERIALS
20333-30000	16/04/24	A	WET WELL WITH VALVE CHAMBER - STANDARD NOTES
20333-30001	16/04/24	A	SPS - REINFORCEMENT DETAILS
20333-20001	16/04/24	A	SPS - BACKFILL DETAILS

REV	REVISION DETAILS	DRN	CKD	APP	DATE	REF. NUMBER	REFERENCE DOCUMENT
A	ISSUED FOR REVIEW	RR	JG	JG	16/04/24		

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Approved	JG
Scale	AS SHOWN

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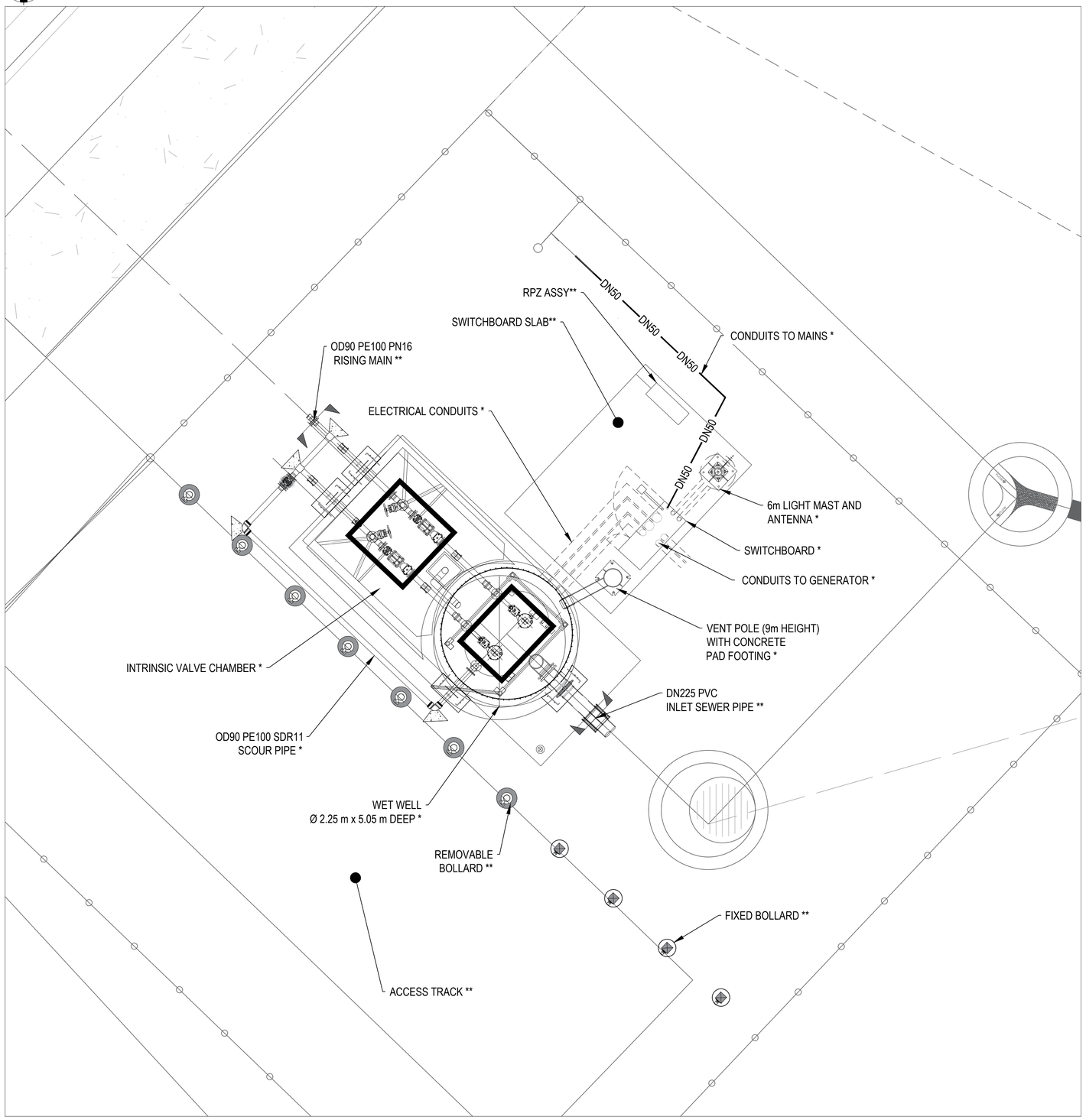
Original Size A1

Client: GOLD COAST CITY COUNCIL
Project: COURTNEY DRIVE STAGE 2
JOB: SEWER PUMP STATION
Title: TITLE & INDEX

OP20333	ISSUED FOR REVIEW (IFR01)	20333 - 10000	A
Project Number	Customer Submission Status	Drawing Number	Revision

Plot Date: 16/04/2024 Plotted by: Roshan Rauniyar Cad File No: D:\Project_Roshan\Courtney Drive_Stage 2_OP20333\WIP\08-01-2024\OP20333 Courtney Drive_Stage 2_SPS IFR01.dwg

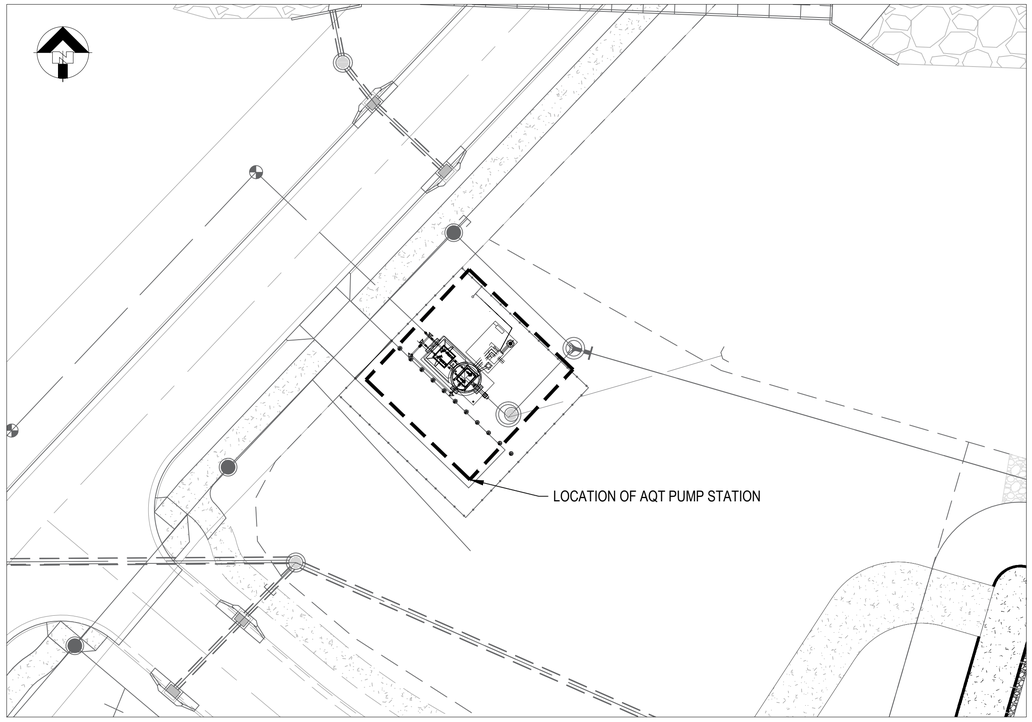


SITE LAYOUT

SCALE 1:40

0 800 1600 2400 3200 4000mm

SCALE 1:40 mm



LOCATION MAP

SCALE 1:300

0 5000 10000 15000 20000 25000mm

SCALE 1:250 mm

GENERAL NOTES:

1. *REFER TO AQUATEC SCOPE OF WORKS
2. **REFER TO CIVIL CONTRACTOR SCOPE OF WORKS

CIVIL CONTRACTOR SCOPE OF WORKS | AQUATEC SCOPE OF WORKS

REV	REVISION DETAILS	DRN	CKD	APP	DATE	REF. NUMBER	REFERENCE DOCUMENT
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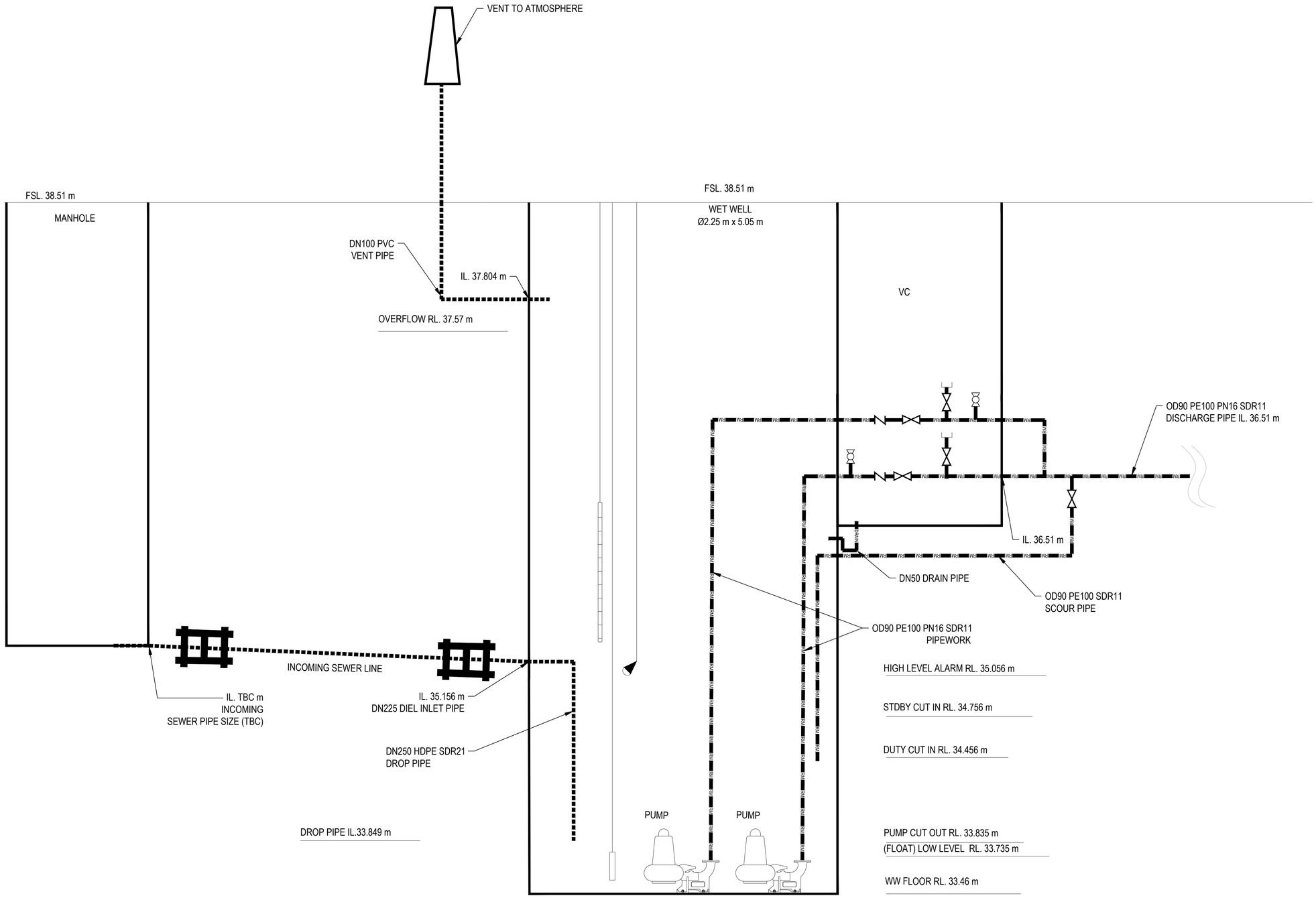
Client: GOLD COAST CITY COUNCIL
Project: COURTNEY DRIVE STAGE 2
JOB: SEWER PUMP STATION
Title: SITE LAYOUT

OP20333	ISSUED FOR REVIEW (IFR01)	20333 -10001	A
Project Number	Customer Submission Status	Drawing Number	Revision

Plot Date: 16/04/2024 Plotted by: Roshan Rauniyar Cad File No: D:\Project_Roshan\Courtney Drive_Stage 2_OP20333\WIP\08-01-2024\OP20333 Courtney Drive_Stage 2_SPS IFR01.dwg



HYDRAULIC SCHEMATIC DIAGRAM

SCALE: NTS

0 300 600 900 1200 1500mm

SCALE 1:15 mm

CIVIL CONTRACTOR SCOPE OF WORKS | AQUATEC SCOPE OF WORKS

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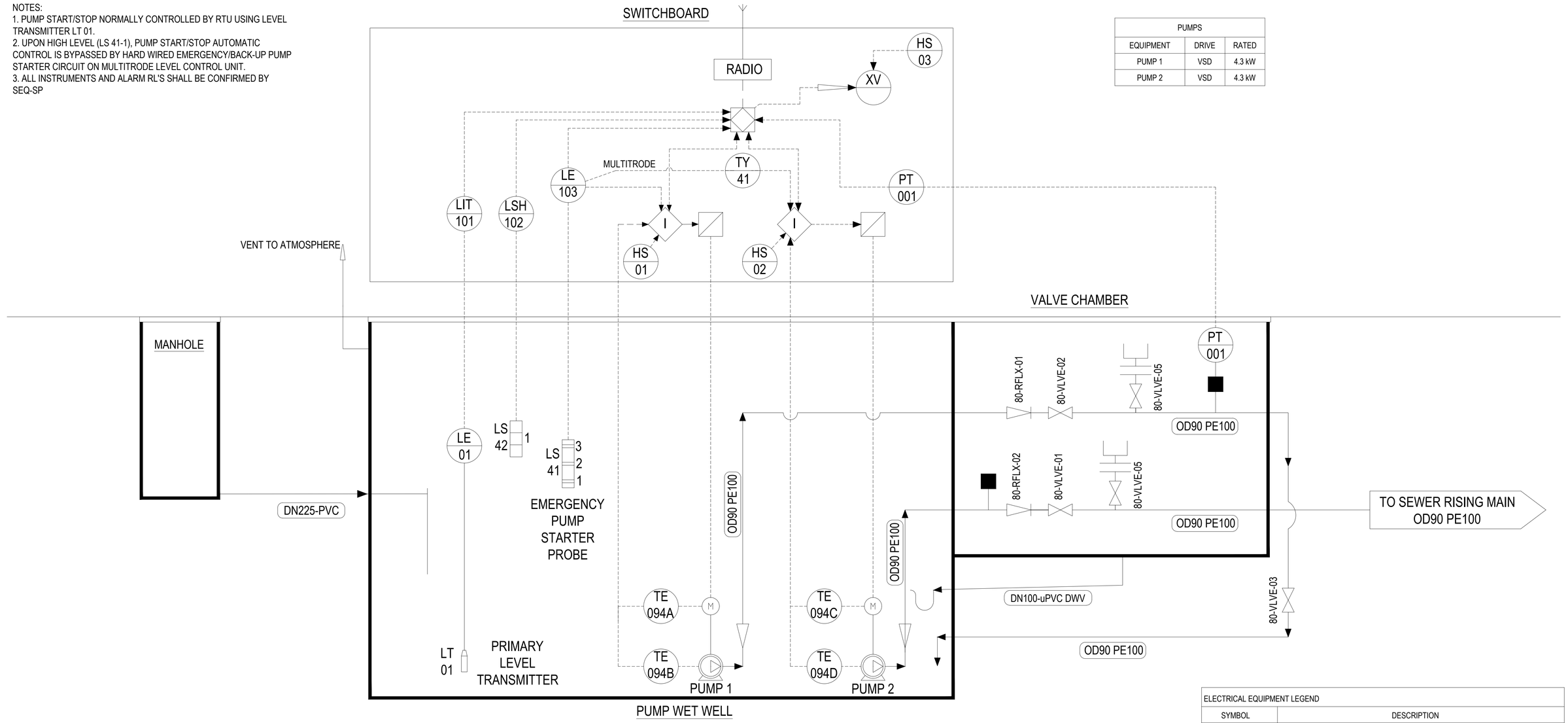
Client: GOLD COAST CITY COUNCIL
Project: COURTNEY DRIVE STAGE 2
JOB: SEWER PUMP STATION
Title: HYDRAULIC SCHEMATIC DIAGRAM

OP20333	ISSUED FOR REVIEW (IFR01)	20333 -40001	A
Project Number	Customer Submission Status	Drawing Number	Revision

Plot Date: 16/04/2024 Plotted by: Roshan Rauniyar Cad File No: D:\Project_Roshan\Courtney Drive_Stage 2_OP20333\WIP\08-01-2024\OP20333 Courtney Drive_Stage 2_SPS IFR01.dwg

NOTES:
1. PUMP START/STOP NORMALLY CONTROLLED BY RTU USING LEVEL TRANSMITTER LT 01.
2. UPON HIGH LEVEL (LS 41-1), PUMP START/STOP AUTOMATIC CONTROL IS BYPASSED BY HARD WIRED EMERGENCY/BACK-UP PUMP STARTER CIRCUIT ON MULTITRODE LEVEL CONTROL UNIT.
3. ALL INSTRUMENTS AND ALARM RL'S SHALL BE CONFIRMED BY SEQ-SP

PUMPS		
EQUIPMENT	DRIVE	RATED
PUMP 1	VSD	4.3 kW
PUMP 2	VSD	4.3 kW



P&ID
SCALE: NTS

PUMP '1' INSTRUMENTATION TAG		
TAG	LEVEL	DESCRIPTION
094A	TE	STATOR HIGH TEMP.
094B	TE	PUMP BEARING HIGH TEMP.
PUMP '2' INSTRUMENTATION TAG		
094C	TE	STATOR HIGH TEMP.
094D	TE	PUMP BEARING HIGH TEMP.

MECHANICAL EQUIPMENT LEGEND	
SYMBOL	DESCRIPTION
	SLUICE VALVE
	NON-RETURN VALVE
	KNIFE GATE VALVE
M	ELECTRIC MOTOR
	PUMP
	TAPPING POINT

LEVEL CONTROLS			
TAG	LEVEL	RL (m)	COMMENTS
LT1	LSL	33.835	ALL STOP
	LSM	34.456	DUTY START
	LSH	34.756	STAND BY START
LSH 102	LSHH	35.056	HIGH ALARM
LS42	1	37.57	OVERFLOW ALARM
LS41	1	TBC BY SEQ-SP	EMERGENCY PUMP START/PUMP ALARM
	2	TBC BY SEQ-SP	
	3	TBC BY SEQ-SP	EMERGENCY PUMP STOP

ELECTRICAL EQUIPMENT LEGEND	
SYMBOL	DESCRIPTION
	HARDWIRED CONNECTION
	COMMUNICATION/SOFTWARE CONNECTION
	DISCRETE INSTRUMENT - FIELD MOUNTED/OPERATOR NOT ACCESIBLE
	DISCRETE INSTRUMENT - OPERATOR ACCESIBLE
	TRTU - OPERATOR NOT ACCESSIBLE
I	LOGIC INTERLOCK (SOFTWARE OR HARDWARE)
	VARIABLE SPEED DRIVE
	SOFT STARTER
	MAGNETIC FLOWMETER

CIVIL CONTRACTOR SCOPE OF WORKS | AQUATEC SCOPE OF WORKS

REV	REVISION DETAILS	DRN	CKD	APP	DATE	REF. NUMBER	REFERENCE DOCUMENT
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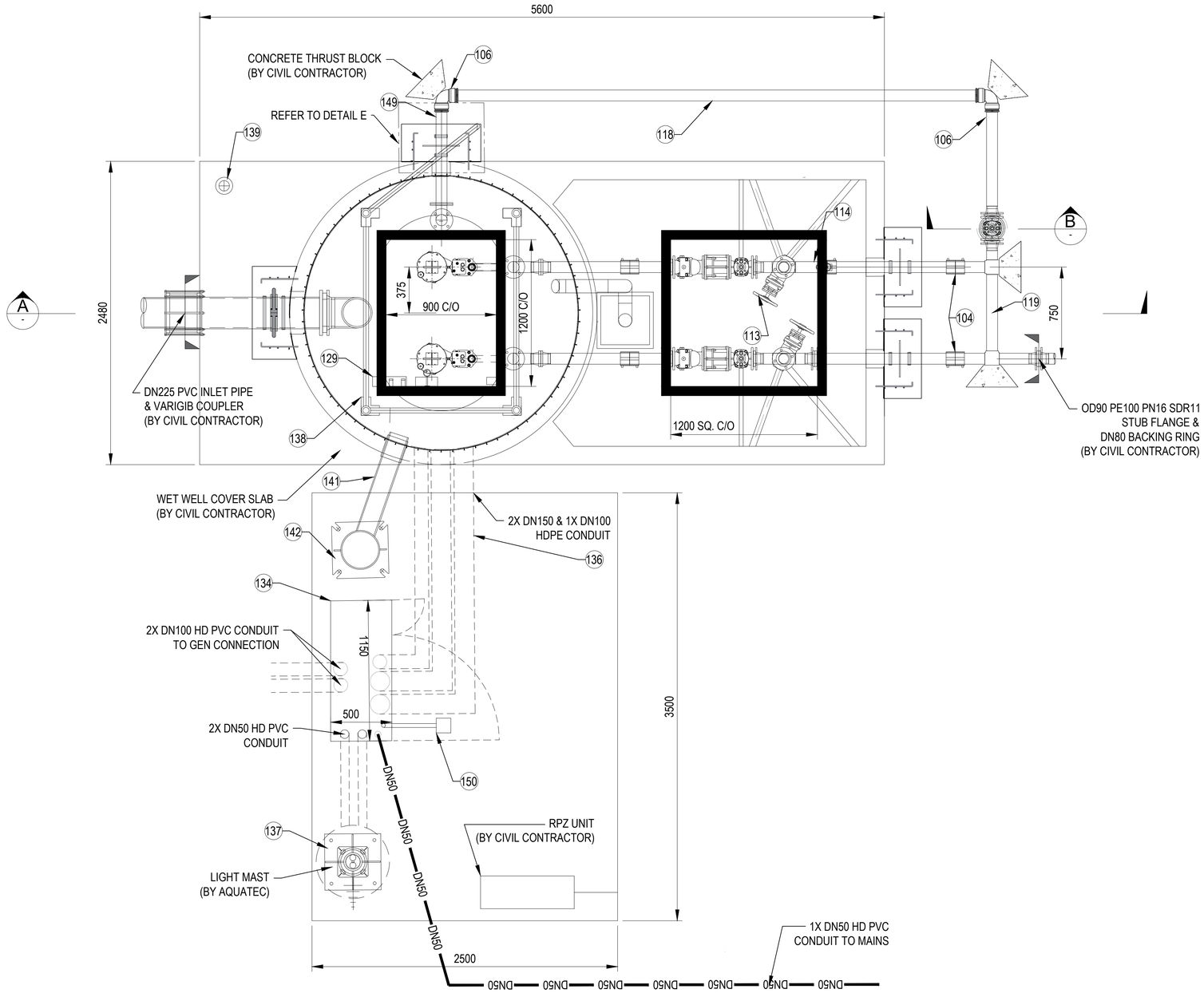
Client: GOLD COAST CITY COUNCIL
Project: COURTNEY DRIVE STAGE 2
JOB: SEWER PUMP STATION
Title: P&ID

OP20333	ISSUED FOR REVIEW (IFR01)	20333 -40002	A
Project Number	Customer Submission Status	Drawing Number	Revision

Plot Date: 16/04/2024 Plotted by: Roshan Rauniyar Cad File No: D:\Project_Roshan\Courtney Drive_Stage 2_OP20333\WIP\08-01-2024\OP20333 Courtney Drive_Stage 2_SPS IFR01.dwg



PLAN
SCALE 1:20

GENERAL NOTES:

1. PUMP STATION TO BE AQUATEC MODEL: PPM2/5050/OP20333
2. PUMP STATION DESIGNED TO WSA 04.
3. CONCRETE TYPE - SULPHATE RESISTANT (USE CALCAROUS AGGREGATE FOR SEWAGE OR EFFLUENT
4. PRE CAST CONCRETE STRENGTH - S50 MPa.
5. REINFORCEMENT TO COMPLY WITH AS4671
6. FOR DETAIL ON STRUCTURAL REQUIREMENTS REFER TO STRUCTURAL NOTES.
7. INTERNAL FINISH SMOOTH TO MEET AS3610.1 CLASS 2
8. INTERNAL COATING REQUIREMENT:

- PE LINER, 3mm P.E. LINER

6. ALL HOLES TO BE PRE-CORED
7. ELECTRICAL SWITCHBOARD DOORS TO HAVE MIN. 600mm CLEARANCE TO ANY SURROUNDING ABOVE GROUND STRUCTURE AS PER AS3000

PUMPING STATION DETAILS	
FINISHED SURFACE LEVEL RL	38.51 m
DISCHARGE PIPE IL (@ VC)	36.51 m
SEWER INLET PIPE DIAMETER	DN225
SEWER INLET PIPE IL	35.156m
WET WELL FLOOR RL	33.46 m

PUMP OPERATING LEVELS	
OVERFLOW RL	35.57 m
HIGH LEVEL ALARM	35.056 m
STDBY START RL	34.756 m
DUTY START RL	34.456 m
PUMP STOP RL	33.835 m
LOW LEVEL ALARM	33.735 m

PUMP DETAILS	
PUMP MAKE	FLYGT
PUMP MODEL	MP 3090 HT 3~50
PUMP WEIGHT	57 KG
MOTOR SIZE	4.3 kW
IMPELLER TYPE / SIZE	SEMI OPEN /180 mm
IMPELLER MATERIAL	GREY CAST IRON
DESIGN DUTY	4.954 L/s @ 35.058 m
SELECTED PUMP DUTY POINT	4.88 L/s @ 34.6 m
PUMP OPERATION	DUTY / STAND-BY
PUMP CONTROL	DOL

0 400 800 1200 1600 2000mm
SCALE 1:20 mm

CIVIL CONTRACTOR SCOPE OF WORKS | AQUATEC SCOPE OF WORKS

REV	REVISION DETAILS	DRN	CKD	APP	DATE	REF. NUMBER	REFERENCE DOCUMENT
A	ISSUED FOR REVIEW	RR	JG	JG	16/02/24		

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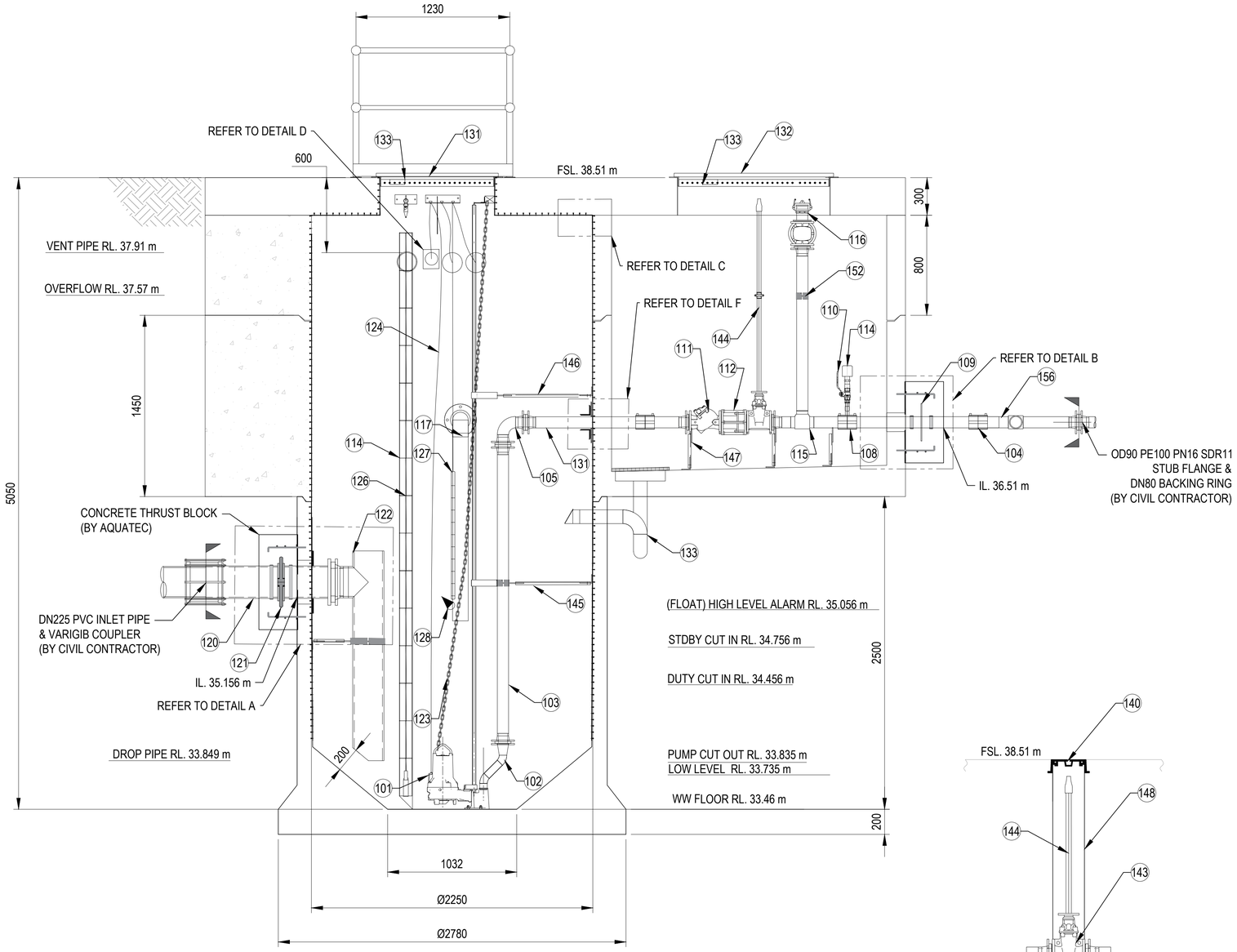
Client: GOLD COAST CITY COUNCIL
Project: COURTNEY DRIVE STAGE 2
JOB: SEWER PUMP STATION
Title: SPS - PLAN

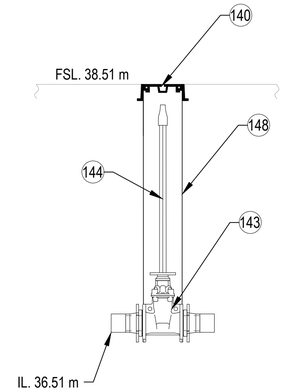
OP20333	ISSUED FOR REVIEW (IFR01)	20333 - 10002	A
Project Number	Customer Submission Status	Drawing Number	Revision

Plot Date: 16/04/2024 Plotted by: Roshan Rauniyar Cad File No: D:\Project_Roshan\Courtney Drive_Stage 2_OP20333\WIP\08-01-2024\OP20333 Courtney Drive_Stage 2_SPS IFR01.dwg



SECTION A
SCALE 1:25

0 400 800 1200 1600 2000mm
SCALE 1:20 mm



SECTION B
SCALE 1:15

0 300 600 900 1200 1500mm
SCALE 1:15 mm

GENERAL NOTES:

1. PUMP STATION TO BE AQUATEC MODEL: PPM2/5050/OP20333
2. CONCRETE TYPE - SULPHATE RESISTANT (USE CALCAROUS AGGREGATE FOR SEWAGE OR EFFLUENT
3. PRE CAST CONCRETE STRENGTH - S50 MPa.
4. INTERNAL FINISH SMOOTH TO MEET AS3610.1 CLASS 2
5. WALL THICKNESS - 100mm WITH MIN. 45mm INTERNAL COVER TO REINFORCEMENT
6. REINFORCEMENT TO COMPLY WITH AS 1302 & AS 1304
7. ALL INTERNAL VERTICAL & COVER OPENING WET WELL SURFACES SHALL HAVE AN APPROVED LIGHT COLORED POLYETHYLENE LINER (MIN. 25mm THICK) MECHANICALLY BONDED TO WALL VIA ANCHORS CAST INTO CONCRETE. THE INTERNAL WALLS OF INTEGRAL VALVE CHAMBER TO BE COATED WITH MC EPOXY (2 COATS)
8. ALL HOLES TO BE PRE-CORED
9. PE100 PN8 SDR21 TO ENSURE TRANSITION TO DROPPER IS INVERT TO INVERT.
10. WELL WASHER, INLET VALVE ETC. NOT INCLUDED AS PER SEQ SPEC.
11. PROVIDE "HYDROTITE" HYDROPHILIC PROFILE 25 x 7 SEAL CJ-0725-3K ON ALL WALL PENETRATIONS AND ALSO ON INSIDE & OUTSIDE FACE OF ALL THRUST FLANGES
12. LEVEL SWITCHES TO BE PROVIDED FOR OVERFLOW LEVEL AND EMERGENCY BACKUP (PRE OVERFLOW) START LEVEL AS PER SEQ-SPS-1300-6 & COUNCIL REQUIREMENT (BOTH OF THEM TO BE STAND ALONE ITEMS).
13. ALL FIXINGS TO PE LINER SHOULD BE STAINLESS STEEL CHEM ANCHORS WITH 12mm THICK SPONGE NEOPRENE GASKETS (REF.SEQ-SPS-1407-1)
14. CAPS TO BE PROVIDED OVER CONDUITS, NOT TO BE FOAM FILLED.
15. INSIDE OF WET WELL COVERS TO BE MARKED "P1" & "P2".
16. THE PUMP CLOSEST TO THE SWITCHBOARD TO BE LABELLED "P1".
17. CONFINED SPACE SIGNS TO BE PLACED ON THE UNDERSIDE OF THE ACCESS COVERS (NOT ON WETWELL WALLS).
18. WET WELL WATER TIGHTNESS TEST TO BE PERFORMED AS PER SEQ. AND AS3735-2001 REQUIREMENTS.
19. ALL FLANGES AND VALVES TO BE DRILLED TO PN16 AS4087 UNO.
20. SWITCHBOARD, HINGED TELEMETRY POLE & VENT STACK TO BE POWDER COATED TO MIST GREEN.
21. AQUATEC TO INCLUDE 316 SS EYEBOLT INTO THE WALL ABOVE INLET
22. ELECTRICAL SWITCHBOARD DOORS TO HAVE MIN. 600mm CLEARANCE TO ANY SURROUNDING ABOVE GROUND STRUCTURE AS PER AS3000
23. FOR ALL PIPEWORK EXTERNAL TO THE VALVE CHAMBER AND WET WELL PROVIDE SEWER MARKER TAPE AND 5-7mm SCREENINGS / DRAINAGE GRAVEL
24. PE LINER TO EXTEND 200mm BELOW START LEVEL AND 50mm MIN. ABOVE THE BENCHING

CIVIL CONTRACTOR SCOPE OF WORKS | AQUATEC SCOPE OF WORKS

REV	REVISION DETAILS	DRN	CKD	APP	DATE	REF. NUMBER	REFERENCE DOCUMENT
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Approved	JG
Scale	AS SHOWN
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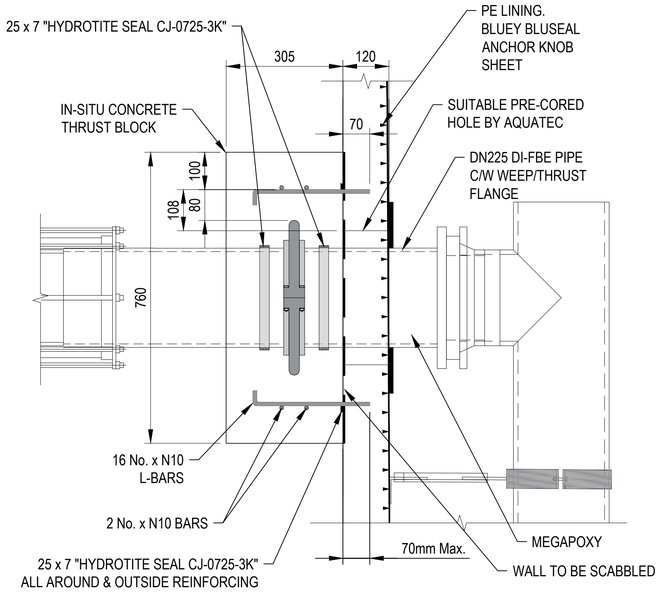
Client: GOLD COAST CITY COUNCIL
Project: COURTNEY DRIVE STAGE 2
JOB: SEWER PUMP STATION
Title: SPS - SECTION

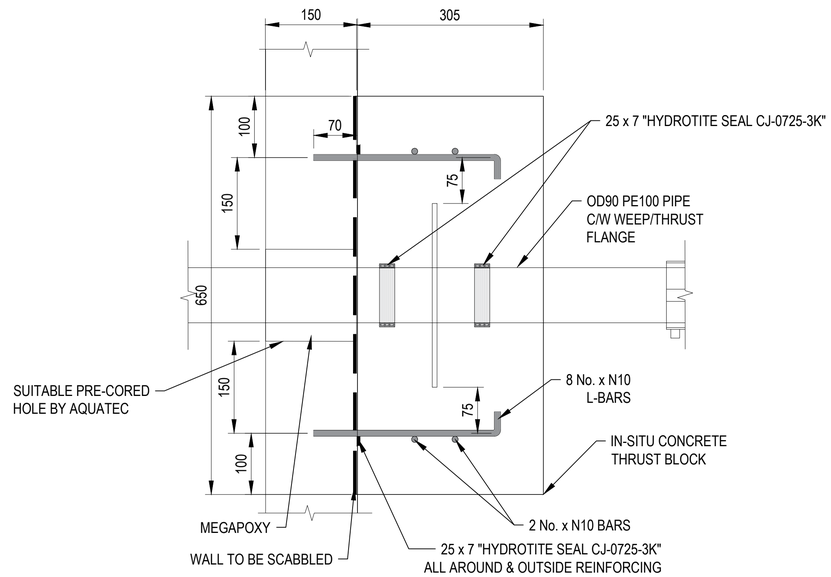
OP20333	ISSUED FOR REVIEW (IFR01)	20333 -10003	A
Project Number	Customer Submission Status	Drawing Number	Revision

Plot Date: 16/04/2024 Plotted by: Roshan Rauniyar Cad File No: D:\Project_Roshan\Courtney Drive_Stage 2_OP20333\WIP\08-01-2024\OP20333 Courtney Drive_Stage 2_SPS IFR01.dwg



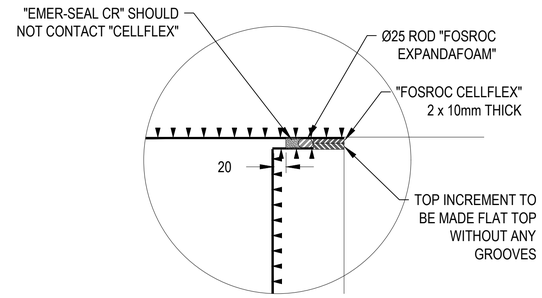
DETAIL A
SCALE 1:8

DN225 DIEL INLET PENETRATION



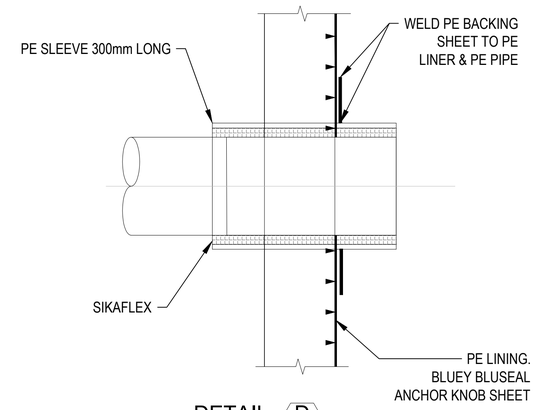
DETAIL B
SCALE 1:5

OD90 PE100 PENETRATION AT VALVE CHAMBER



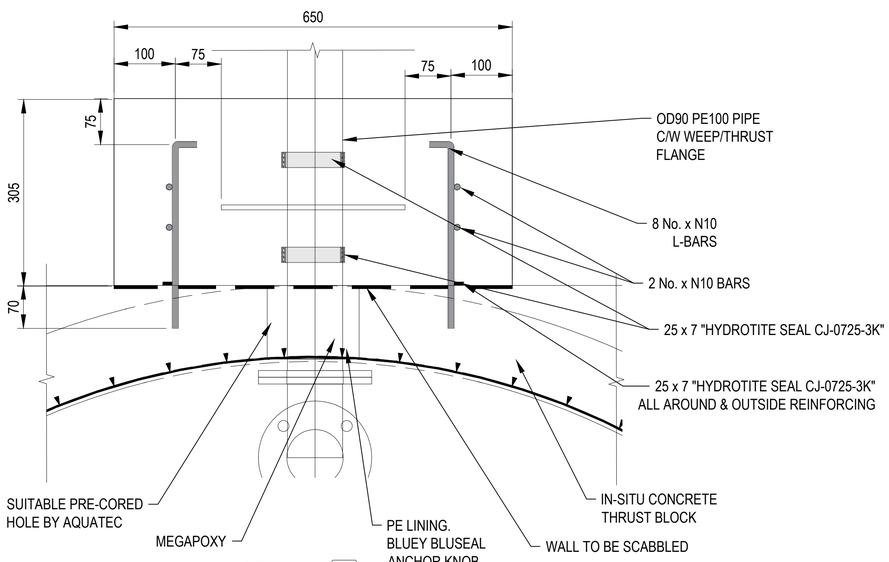
DETAIL C
SCALE 1:5

TOP SEAL DETAILS



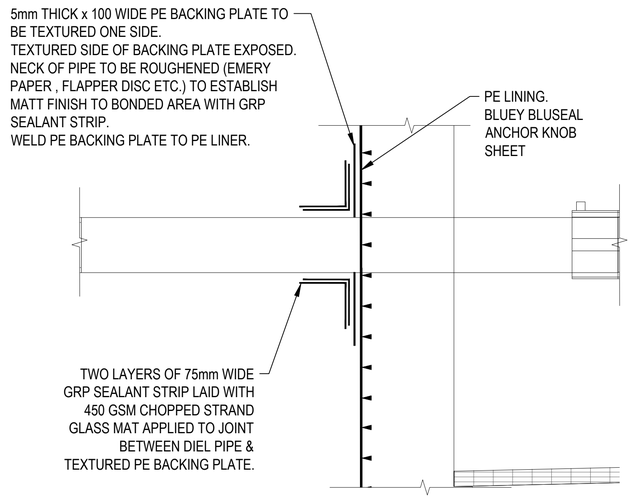
DETAIL D
SCALE 1:5

PE SLEEVE DETAIL FOR PVC CONDUIT & PVC DWV VENT PENETRATION



DETAIL E
SCALE 1:5

OD90 PE100 SCOUR PENETRATION



DETAIL F
SCALE 1:5

OD90 PE100 PENETRATION WET WELL

0 100 200 300 400 500mm

SCALE 1:5 mm

CIVIL CONTRACTOR SCOPE OF WORKS | AQUATEC SCOPE OF WORKS

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Original Size A1

Client: GOLD COAST CITY COUNCIL
Project: COURTNEY DRIVE STAGE 2
JOB: SEWER PUMP STATION
Title: MISCELLANEOUS DETAILS

OP20333	ISSUED FOR REVIEW (IFR01)	20333 - 10004	A
Project Number	Customer Submission Status	Drawing Number	Revision

Plot Date: 16/04/2024 Plotted by: Roshan Rauniyar Cad File No: D:\Project_Roshan\Courtney Drive_Stage 2_OP20333\WIP\08-01-2024\OP20333 Courtney Drive_Stage 2_SPS IFR01.dwg

SPS - BILL OF MATERIALS

MATERIALS SCHEDULE

ITEM NUMBER	DESCRIPTION	QUANTITY	MATERIAL	REMARKS
101	SUBMERSIBLE PUMP	2	CAST IRON	REFER PUMP DETAILS ON SHEET 10002
102	DN50-DN80 CONNECTION COMPRISING OF: 1 QTY x DN50 STRAIGHT PIPE 2 QTY x DN50 45 DEG. ELBOW 1 QTY x DN50 NIPPLE TOE NPT 1 QTY x DN50 FLANGE DRILLED TO AS4087 1 QTY x DN50-DN80 CONCENTRIC REDUCER	2	316LSS SCH10	LENGTHS. TO SUIT
103	OD90 FL-FL RISER COMPRISING OF: 1 QTY x OD90 SP-SP PIPE 2 QTY x OD90 STUB FLANGE 2 QTY x DN80 BACKING RING DRILLED TO AS4087	2	PE100 SDR11 / 316SS	LENGTHS. TO SUIT
104	OD90 EF COUPLER	4	PE100 SDR11	ELECTROFUSION
105	OD90 FL-FL ELBOW COMPRISING OF: 2 QTY x OD90 STUB FLANGE 2 QTY x DN80 BACKING RING DRILLED TO AS4087 1 QTY X OD90 90DEG S/R ELBOW	2	PE100 SDR11 / 316SS	LENGTHS. TO SUIT
106	DN90 EF 90DEG ELBOW	2	PE100 PN16 SDR11	
107	DISCHARGE PRESSURE TRANSMITTER	1		DANFOSS MBS 3000
108	OD90 TAPPING SADDLE	2	PE100 SDR11	LENGTHS. TO SUIT
109	DN80 THRUST FLANGE	3	PE100	
110	DN20 BALL VALVE	2	316SS	
111	DN80 SWING CHECK VALVE CW LEVER & WEIGHT & 1/4" BLEED POINT	2	DUCTILE IRON	FUSION COATED, RESILIENT SEATED, , AVK 41-8X SERIES
112	DN80 DISMANTLING JOINT	2	DUCTILE IRON	
113	DN80 FL-FL RESILIENT SEATED GATE VALVE CW HANDWHEEL (CLOCKWISE CLOSE)	2	DUCTILE IRON	
114	DN100 STILLING TUBE	1	PVC	
115	OD90 FABRICATED FL-FL-SP PIPEWORK COMPRISING OF: 3 QTY x OD90 STRAIGHT PIPE 1 QTY x OD90 EQUAL TEE 2 QTY x OD90 STUB FLANGE 2 QTY x DN80 BACKING RING AS4087	2	PE100 SDR11 / 316SS	LENGTHS. TO SUIT
116	DN80 CAMLOCK BAUER	1	316SS	
117	OD90 FABRICATED SP-FL PIPEWORK COMPRISING OF: 1 QTY x OD90 STRAIGHT PIPE 1 QTY x DN80 FLANGE AS4087 1 QTY x OD 90DEG S/R ELBOW 1 QTY x OD90 STUB FLANGE	1	PE100 SDR11 / 316SS	LENGTHS. TO SUIT
118	1 QTY x OD90 SP-SP PIPE	1	PE100 SDR11 / 316SS	LENGTHS. TO SUIT
119	OD90 FABRICATED SP-SP-FL-FL PIPEWORK COMPRISING OF: 5 QTY x OD90 STRAIGHT PIPE 2 QTY x OD90 EQUAL TEE 2 QTY x OD90 STUB FLANGE 2 QTY x DN80 BACKING RING AS4087	1	PE100 SDR11 / 316SS	LENGTHS. TO SUIT
120	DN225 INLET FL-SP PIPEWORK	1	DICL FBE	1100mm LENGTH
121	DN225 WEEP FLANGE	1	DUCTILE	
122	OD250 DROP PIPE	1	HDPE PE100 SN8 SDR21	
123	LIFTING CHAIN	2	316 SS	TO SUIT PUMP
124	PUMP CABLE	2		
125	3/4" GUIDERAIL	2	316 SS	
126	LEVEL TRANSDUCER	1		VEGAWELL 52
127	BACK UP LEVEL SWITCH	1		FOR EMERGENCY BACKUP (MULTITRODE 1m LONG 10 SEGMENTS) & OVERFLOW LEVEL (KELCO FLOAT SWITCH)
128	FLOAT SWITCH	1		NOLTA FN20
129	FLOAT BAR	1	316 SS	
130	DN100 DRAIN CW FROG FLAP & TRAP VALVE (VALVE CHAMBER)	1	PVC DWV SN10	
131	OD90 FABRICATED FL-SP PIPEWORK COMPRISING OF: 1 QTY x OD90 STRAIGHT PIPE 1 QTY x OD90 STUB FLANGE 1 QTY x DN50 BACKING RING AS4087	4	PE100 SDR11 / 316SS	LENGTHS. TO SUIT
132	VALVE CHAMBER - CLEAR OPENING 1200 x 1200 WITH SAFETY GRATES	1	ALUMINIUM	MASS PRODUCT TO COGC SPECIFICATIONS
133	CONFINED SPACE SIGNS	2	PLASTIC	
134	SWITCHBOARD	1	ALUMINIUM	3.0mm THICK, MARINE GRADE ALUMINUM , WITH G54 MIST GREEN/DULUX PALE EUCALYPT POWDER-COATED FINISHH AND ANTI-GRAFFITI COATING
135	HANDRAIL CW SELF CLOSING SINGLE DOOR FOR VALVE CHAMBER	1	ALUMINIUM	MASS PRODUCT TO COGC SPECIFICATIONS
136	ELECTRICAL CONDUITS	1	HDPE	LENGTH & SIZE TO SUIT
137	LIGHT MAST - HINGED POLE FOR TELEMETRY & LIGHTING (6m - HEIGHT TBA BASED ON RADIO SURVEY)	1	POWDER COATED	INGAL HBM6F
138	HANDRAIL CW SELF CLOSING SINGLE DOOR FOR WETWELL	1	ALUMINIUM	MASS PRODUCT TO COGC SPECIFICATIONS
139	PERMANENT SURVEY MARK	1	BRASS	REFER DRAWING No. SEQ-SPS-1508-1
140	INSPECTION OPENING	1	CAST IRON	SERIES 100
141	DN150 STUB VENT PIPEWORK COMPRISING OF: 1 QTY x DN150 SP-SP PIPE	1	uPVC DWV	
142	VENT STACK CW 150mm VENT COWL, 9m HIGH	1	POWDER COATED	INGAL, (REFER DETAILS IN MISCELLANEOUS)
143	DN80 FL-FL RESILIENT SEATED GATE VALVE CW SPINDLE (CLOCKWISE CLOSE)	3	DUCTILE IRON	
144	SPINDLE EXTENSION	3	316SS	LENGTHS. TO SUIT
145	VERTICAL PIPE SUPPORT BRACKETS WITH ANTI SPREAD BRACKETS	TO SUIT	316 SS	REFER DETAIL 01 ON DRAWING NO. AQSTD 00002
146	VERTICAL PIPE SUPPORT BRACKETS	TO SUIT	316 SS	REFER DETAIL 01 ON DRAWING NO. AQSTD 00001
147	PIPE SUPPORT BRACKETS (FOR HORIZONTAL PIPEWORK)	TO SUIT	316SS	REFER DETAIL 05 ON DRAWING NO. AQSTD 00001
148	DN100 PIPE SLEEVE	1	PVC DWV SN8	LENGTHS. TO SUIT
149	1 QTY x OD90 FL-SP PIPE COMPRISING OF: 1 QTY x OD90 SP PIPE 1 QTY x DN80 FLANGE DRILLED TO AS4087	1	PE100 SDR11 / 316SS	LENGTHS. TO SUIT
150	EARTH STAKE PIT - 120 x120 x 76mm H	1	ALUMINIUM	ERICO Part No. DULERB1, BITUMEN COATING REQUIRED UNDERSIDE OF THE POST CONTACTING WITH CONCRETE
152	TWIN LEG CLAMPED TYPE VERTICAL PIPE SUPPORT BRACKET	2	316 SS	REFER DETAIL 05 ON DRAWING NO. AQSTD 00001

REV	REVISION DETAILS	DRN	CKD	APP	DATE	REF. NUMBER	REFERENCE DOCUMENT
A	ISSUED FOR REVIEW	RR	JG	JG	16/04/24		

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Scale	AS SHOWN

This Drawing must not be used for Construction unless signed as Approved

Original Size A1

Client: GOLD COAST CITY COUNCIL
Project: COURTNEY DRIVE STAGE 2
JOB: SEWER PUMP STATION
Title: SPS - BILL OF MATERIALS

OP20333	ISSUED FOR REVIEW (IFR01)	20333 -10005	A
Project Number	Customer Submission Status	Drawing Number	Revision

Plot Date: 16/04/2024 Plotted by: Roshan Rauniyar Cad File No: D:\Project_Roshan\Courtney Drive_Stage 2_OP20333\WIP\08-01-2024\OP20333 Courtney Drive_Stage 2_SPS IFR01.dwg

GENERAL

G1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE SUPERINTENDENT FOR DECISION BEFORE PROCEEDING WITH THE WORK.

G2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE. ALL LEVELS ARE EXPRESSED IN METRES.

G3. ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF-SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION AND FABRICATION IS COMMENCED. THE ENGINEER'S DRAWINGS (INCLUSIVE OF ELECTRONIC COPIES) SHALL NOT BE SCALED.

G4. WORKMANSHIP AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RELEVANT CURRENT STANDARDS AUSTRALIA CODES INCLUDING ALL AMENDMENTS, AND LOCAL STATUTORY AUTHORITY REQUIREMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

G5. ALL PROPRIETARY PRODUCTS SHALL BE SUPPLIED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

G6. SUBSTITUTION OF NOMINATED PRODUCTS AND MATERIALS SHALL ONLY OCCUR IF APPROVED BY THIS OFFICE; NO SUBSTITUTIONS SHALL BE MADE OR SIZES OF STRUCTURAL MEMBERS VARIED WITHOUT OBTAINING THE APPROVAL OF THE ENGINEER. THE APPROVAL OF A SUBSTITUTION FROM THE ENGINEER SHALL NOT BE AN AUTHORISATION FOR AN EXTRA. ANY EXTRA INVOLVED SHALL BE TAKEN UP WITH THE SUPERINTENDENT BEFORE THE WORK COMMENCES.

G7. ALL INFORMATION INCLUDED IN THE STRUCTURAL ENGINEERING DOCUMENTATION IS FOR THE FINAL IN PLACE CONDITION OF THE STRUCTURE AND IS EXCLUSIVE OF TEMPORARY WORKS. THE PRINCIPAL CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY WORKS AND THE ASSOCIATED COSTS. THE PRINCIPAL CONTRACTOR SHALL ENGAGE A SITE SPECIFIC TEMPORARY WORKS ENGINEER WHO SHALL BE RESPONSIBLE FOR THE DESIGN, DOCUMENTATION, CERTIFICATION AND SITE SUPERVISION OF ALL NECESSARY TEMPORARY WORKS. THE PRINCIPAL CONTRACTOR AND SITE SPECIFIC WORKS ENGINEER SHALL ENSURE THAT DURING CONSTRUCTION, THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND THAT NO PART SHALL BE OVERSTRESSED. THE PRINCIPAL CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING AND PROPPING AS NECESSARY, INCLUDING TEMPORARY SUPPORT FOR EXCAVATIONS.

G8. ALL COSTS INCURRED BY THE ENGINEER FOR ASSESSMENT OR APPROVAL OF SUBSTITUTED MEMBERS, ALTERNATIVE BUILDING SOLUTIONS OR TEMPORARY PROPPING WORKS SHALL BE BORNE BY THE PRINCIPAL CONTRACTOR.

G9. NO HOLES, RECESSES OR CHASES OTHER THAN THOSE SHOWN ON THE CURRENT DRAWING SET SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.

G10. THE FOLLOWING ABBREVIATIONS USED IN THESE DRAWINGS ARE:

TOP	TOP
BTM	BOTTOM
BW	BOTH WAYS
CTS	CENTRES
EF	EACH FACE
EW	EACH WAY
FF	FAR FACE
NF	NEAR FACE
FW	FILLET WELD
PL	PLATE
CFW	CONTINUOUS FILLET WELD
UNO	UNLESS NOTED OTHERWISE ON WATER AUTHORITY STANDARD / DRAWINGS

G11. THE PROJECT SUPERINTENDANT AND/OR SITE ENGINEER IS TO UNDERTAKE ALL SITE INSPECTIONS IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPROVAL AUTHORITY.

G12. IT IS THE PRINCIPAL CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL SUB-CONTRACTORS HAVE READ THIS DRAWING SHEET IN CONJUNCTION WITH ALL OTHER STRUCTURAL AND PROJECT DOCUMENTATION. THE PRINCIPAL CONTRACTOR SHALL ENSURE THAT SUB-CONTRACTORS ARE ISSUED ALL STRUCTURAL AND ALL OTHER PROJECT CONSULTANTS DRAWINGS.

CONCRETE:

C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MOST STRINGENT REQUIREMENTS OF AS3600, AS3735, AS5100, WSA04 AND WSA114. CONCRETE SHALL HAVE THE FOLLOWING CHARACTERISTIC PROPERTIES:

ELEMENT	SLUMP	MAX. AGGREGATE SIZE (DENSE Wt)	F'c MPa (28 DAYS)
PRECAST ELEMENTS	100	20	50

C2. ALL ELEMENTS WILL HAVE THE FOLLOWING MINIMUM REQUIREMENTS:
- CEMENT TO BE TYPE SR-SULFATE RESISTANT.
- MINIMUM CEMENTITIOUS CONTENT TO BE 450kg/m³.
- MAXIMUM WATER TO CEMENT RATIO TO BE 0.40.
- MINIMUM OF 75% OF 28 DAY F'c TO BE ACHIEVED PRIOR TO STRIPPING. IF AMBIENT CONDITION CURING ADOPTED, CURE AT LEAST 7 DAYS PRIOR TO STRIPPING.
- TESTING AND SAMPLING OF CONCRETE IS TO BE TO THE MOST STRINGENT REQUIREMENTS OF AS3600, AS3735, WSA04 AND VICROADS SPECIFICATION 610. TO BE STRIPPED AND LIFTED AS PER LIFTING DESIGN AND AS 3850
- MAXIMUM TOTAL REACTIVE ALKALI CONTENT AS Na_2O EQUIVALENT TO BE 2.8kg/m³
- COARSE AGGREGATE SHALL BE CALCEREOUS WITH A MINIMUM ACID SOLUBILITY OF 90% WHEN TESTED IN ACCORDANCE WITH AS3735

C3. CONCRETE SIZES DO NOT INCLUDE FINISHES. BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS.

C4. NO HOLES, RECESSES, CHASES, EMBEDMENTS OR ADDITIVES OTHER THAN SHOWN ON THE STRUCTURAL DRAWINGS WITHOUT ENGINEER'S APPROVAL.

C6. LOCATIONS OF CONSTRUCTION JOINTS AS PER DRAWINGS OR TO THE ENGINEERS APPROVAL.

C7. ALL FORMWORK CONSTRUCTED AND SUPPORTED AS PER AS3610 AND AS3610.1 EXPOSED CONCRETE POURED AGAINST CLASS 2 FORMWORK AS PER AS3610.1 U.N.O.

C8. SLURRY USED TO LUBRICATE CONCRETE PUMP PIPES SHALL NOT BE PUMPED INTO ANY STRUCTURAL ELEMENTS.

C9. ALL CONCRETE SHALL BE MECHANICALLY VIBRATED AND NO WATER ADDED DURING PLACEMENT. PROTECT ALL SURFACES FROM WIND AND CURE 7 DAYS WITH MOISTURE RETAINING MEMBRANE OR WATER SATURATION. NOTE CODE REQUIREMENTS WHERE AIR TEMPERATURE IS OUTSIDE RANGE 5° TO 32° C.

C10. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION AND IS DENOTED BY THE FOLLOWING SYMBOLS:
R - R250N HOT ROLLED PLAIN ROUND BAR TO AS/NZS4671
N - D500N HOT ROLLED DEFORMED BARS TO AS/NZS4671
SL & RL - LOW DUCTILITY CLASS L HARD DRAWN WELDED WIRE REINFORCING FABRIC TO AS/NZS4671. MAIN WIRE NEAREST FACE OF CONCRETE U.N.O. CLASS L DEFORMED BARS MUST NOT BE SUBSTITUTED WITHOUT THE ENGINEERS APPROVAL.

C11. ALL REINFORCEMENT SHALL BE HELD RIGIDLY IN POSITION BEFORE AND DURING CONCRETE PLACEMENT.

C12. CLEAR COVER AS FOLLOWS U.N.O. TO BE MAINTAINED AT ALL TIMES (USING RIGID FORMWORK AND 50MPa CONCRETE AS PER SWC SPECIFICATION:

ELEMENT	INTERNAL COVER	EXTERNAL COVER
COUNTER WEIGHT	55	45
SHAFT	CENTRE PLACED	
VALVE PIT INTEGRAL	CENTRE PLACED	
VALVE PIT EXT.	CENTRE PLACED	
COVER SLAB	55	40

CONDUITS SHALL NOT BE PLACED WITHIN CONCRETE COVER.

C15. REFER AS3610 TABLE 5.4.1 RE STRIPPING TIMES FOR BACK PROPPING. MASONRY AND MATERIALS SHALL NOT BE STACKED OR LAID ON SLABS UNTIL ALL PROPS ARE REMOVED AND FULL STRENGTH ATTAINED.

C16. CHEMICAL ADDITIVES INCLUDING CALCIUM CHLORIDE SHALL NOT BE USED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

REINFORCEMENT BAR LAPS U.N.O.

BAR SIZE	LAP FOR LESS THAN 300mm CONCRETE BELOW BAR OR VERTICAL BAR	LAP FOR HORIZONTAL BARS WITH MORE THAN 300mm CONCRETE BELOW BAR. (TOP REINFORCEMENT IN BASE AND COVER SLABS ONLY)
N12	400	400
N16	500	500
N20	650	650

DESIGN DATA:

DD1. U.N.O. GEOTECHNICAL DESIGN DATE ADOPTED AS FOLLOWING:
WATER DENSITY = 10 kN/m^3
MAX BACKFILL SOIL DENSITY = 20 kN/m^3
SOIL AT REST EARTH PRESSURE COEFFICIENT K_o= 0.5

DD2. THE STRUCTURE DESIGN LIFE AS PER AS 3735-2001.

DD3. NON-TRAFFICABLE LIVE LOAD - 5kPa
BOLLARDS OR OTHER APPROVED BARRIERS TO PREVENT LOADING OF THE COVER SLAB IN EXCESS OF THE DESIGN LOAD ARE TO BE PROVIDED TO WATER AUTHORITY REQUIREMENTS.

DD4. TRAFFICABLE LIVE LOAD - 20kPa & W80 WHEEL LOAD
SHAFT WALLS ARE DESIGNED TO SUPPORT AXIAL LOADS AND HORIZONTAL GROUND PRESSURES FROM A 20kPa VERTICAL SURCHARGE LOAD APPLIED AT GROUND LEVEL.

DD5. BASE OF SHAFT IS TO BE FOUNDED ON MATERIAL WITH A MINIMUM OF 200kPa ALLOWABLE BEARING CAPACITY, SUBJECT TO FINAL DESIGN AND GEOTECHNICAL ADVICE.

DD6. EXPOSURE CLASSIFICATIONS:
ABOVE GROUND EXTERIOR - B1
IN-GROUND (IN CONTACT WITH THE SOIL) - B1
INTERNAL SURFACES - C

DD7. PROTECTIVE COATING REQUIREMENTS:
REQUIRE INTERNAL PE LINER TO BE CONFIRMED BY CLIENTS.
SITE SPECIFIC PARAMETERS SUCH AS CLIMATIC CONDITIONS, EXTERNAL EXPOSURE CLASSIFICATION AND SOIL AGGRESSIVELY MUST BE CHECKED ON A PROJECT SPECIFIC BASIS.

NOTE:

THIS DESIGN EXCLUDES THE FOLLOWING PROVISIONS , AS APPROPRIATE FOR THE CURRENT CASE.
- CATHODIC PROTECTION
- STRAY CURRENT PROTECTION
- AGGRESSIVE ENVIRONMENTS
- CONTAMINATED GROUND

ALL AS DEFINED IN WSA04: SEWAGE PUMPING STATION CODE.

DESIGN STANDARDS:

DESIGN OF THIS AQUATEC PUMP STATION IS BASED ON THE FOLLOWING STANDARDS:

WATER SERVICES ASSOCIATION OF AUSTRALIA STANDARDS
WSA 04 - 2005 SEWAGE PUMPING STATIONS CODE
WSA 114 - 2002 INDUSTRY STANDARD FOR CONCRETE SPECIAL CLASS

AUSTRALIAN STANDARDS
AS/NZS 1170.0 - 2002 STRUCTURAL DESIGN ACTIONS - PART 0: GENERAL PRINCIPLES. INCORPORATING AMENDMENTS 1 TO 5.
AS/NZS 1170.1 - 2002 STRUCTURAL DESIGN ACTIONS - PART 1: PERMANENT, IMPOSED AND OTHER ACTIONS. INCORPORATING AMENDMENTS 1 AND 2.
AS 1379 - 2017 SPECIFICATION AND SUPPLY OF CONCRETE
AS1657 - 2018 FIXED PLATFORMS, WALKWAYS, STAIRWAYS AND LADDERS - DESIGN, CONSTRUCTION AND INSTALLATION
AS 3600 - 2018 CONCRETE STRUCTURES
AS 3735 - 2001 CONCRETE STRUCTURES FOR RETAINING LIQUIDS
AS 3735 - SUPP1 - 2001 CONCRETE STRUCTURES FOR RETAINING LIQUIDS

REV	REVISION DETAILS	DRN	CKD	APP	DATE	REF. NUMBER	REFERENCE DOCUMENT
A	ISSUED FOR REVIEW	RR	JG	JG	16/04/24		

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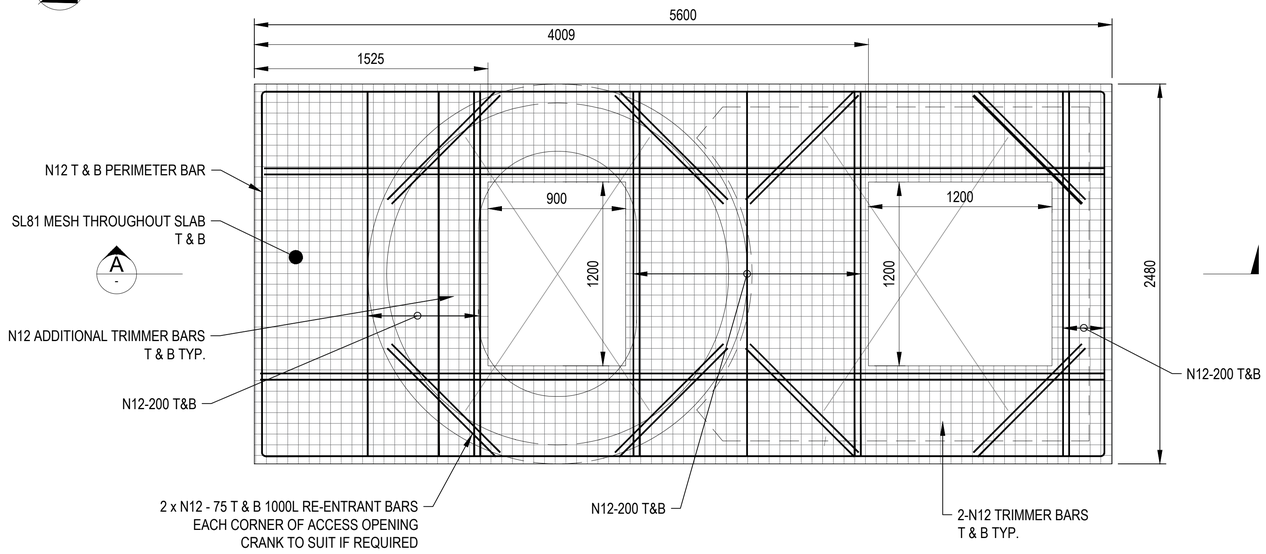
Original Size A1

Client: GOLD COAST CITY COUNCIL
Project: COURTNEY DRIVE STAGE 2
JOB: SEWER PUMP STATION
Title: WET WELL WITH VALVE CHAMBER - STANDARD NOTES

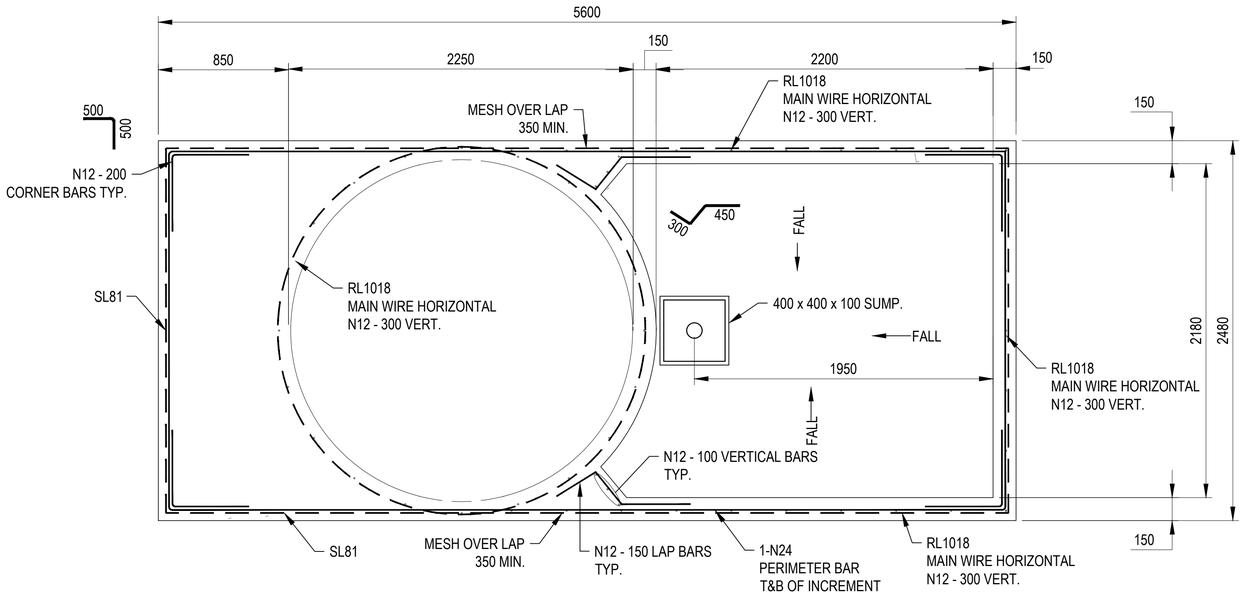
OP20333	ISSUED FOR REVIEW (IFR01)	20333 -30000	A
Project Number	Customer Submission Status	Drawing Number	Revision



COVER SLAB - PLAN VIEW

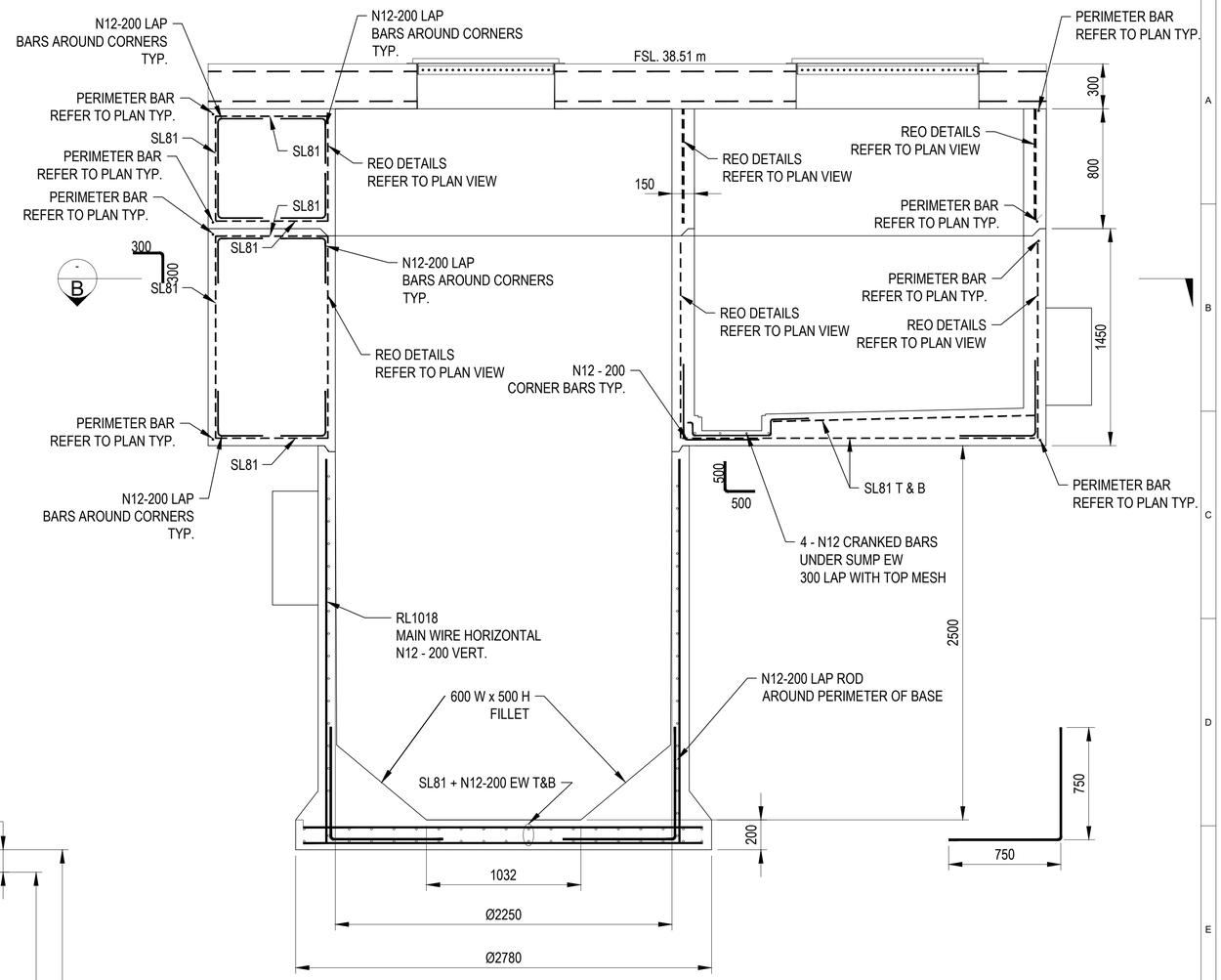
SPS-STRUCTURAL-PLAN

SCALE 1:20



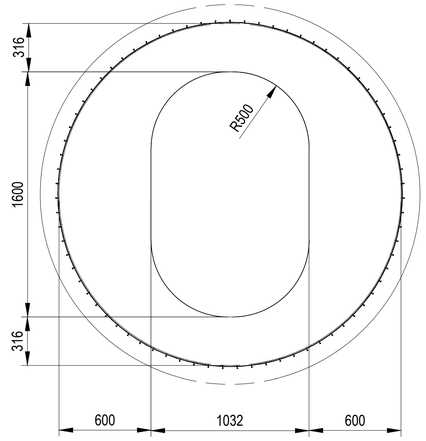
SECTION B

SCALE 1:20



SECTION A

SCALE 1:20



BENCHING DETAIL

SCALE 1:20

NON-TRAFFICABLE INSTALLATION

IF GROUNDWATER IS SIGHTED DURING CIVIL INSTALLATION, AQUATEC TO BE CONTACTED BEFORE PROCEEDING SITE WORK.

DRAFT

THE STRUCTURAL DETAILS TO BE FINALISED UPON STRUCTURAL ADVISE FROM THE ENGINEERS

0 400 800 1200 1600 2000mm

SCALE 1:20 mm

CIVIL CONTRACTOR SCOPE OF WORKS | AQUATEC SCOPE OF WORKS

REV	REVISION DETAILS	DRN	CKD	APP	DATE	REF. NUMBER	REFERENCE DOCUMENT
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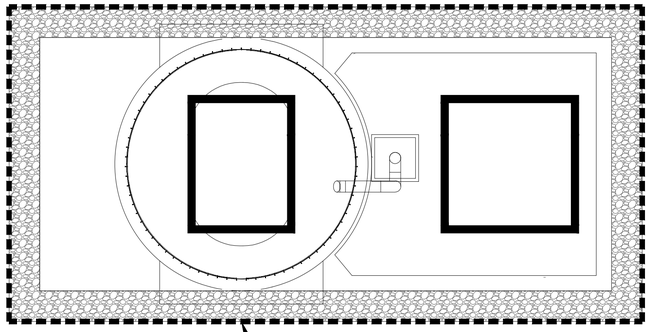
Client: GOLD COAST CITY COUNCIL
Project: COURTNEY DRIVE STAGE 2
JOB: SEWER PUMP STATION
Title: SPS - REINFORCEMENT DETAILS

OP20333	ISSUED FOR REVIEW (IFR01)	20333 -30001	A
Project Number	Customer Submission Status	Drawing Number	Revision

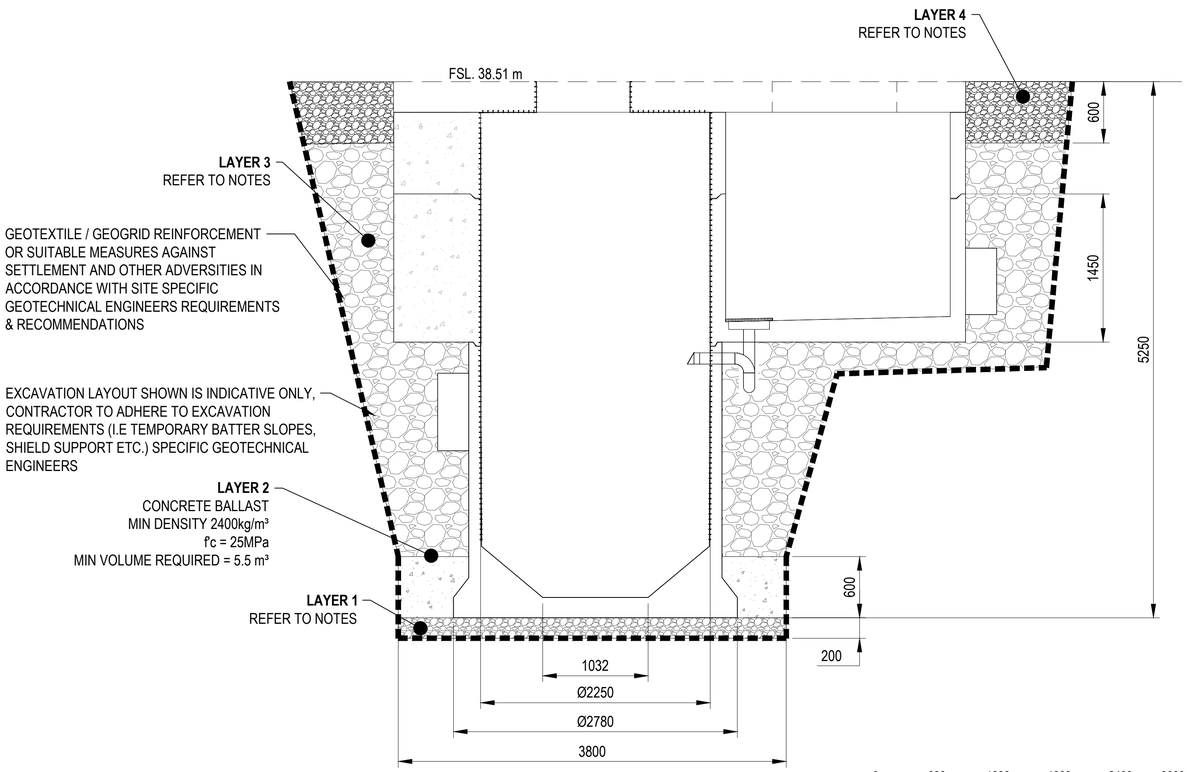
NOTE: IF GROUNDWATER IS SIGHTED DURING EXCAVATION
AQUATEC TO APPLY GATOR WRAP.



EXCAVATION LAYOUT SHOWN IS INDICATIVE ONLY,
CONTRACTOR TO ADHERE TO EXCAVATION REQUIREMENTS
(I.E TEMPORARY BATTER SLOPES, SHIELD SUPPORT ETC.)
SPECIFIED BY SITE SPECIFIC GEOTECHNICAL ENGINEERS

SPS - BACKFILL - PLAN

SCALE 1:30



SPS - BACKFILL - SECTION

SCALE 1:30

0 600 1200 1800 2400 3000mm

SCALE 1:30 mm

CONSTRUCTION NOTES AND BACKFILLING REQUIREMENTS

CONSTRUCTION NOTES AND BACKFILLING REQUIREMENTS FOR PUMP STATION INSTALLATION
(GRAVITY SEWER / RISING MAIN TRENCH FILLING, PIPE EMBEDMENT AND ANY OTHER BACKFILL / BULK EARTHWORKS OUTSIDE THE PUMP STATION INSTALLATION TO BE DESIGNED & CONSTRUCTED BY CIVIL CONTRACTORS)
OCCUPATIONAL HEALTH AND SAFETY:
THE CONTRACTOR IS RESPONSIBLE TO BE KNOWLEDGEABLE OF AND IS BOUND BY THE OH&S STATUTORY REQUIREMENTS PERTAINING TO WORK IN DEEP TRENCHES AND SHAFTS.
THE WATER AUTHORITY:
THE SPECIFICATIONS OF THE RELEVANT PRINCIPLE WATER AUTHORITY FOR THE INSTALLATION AND CONSTRUCTION OF PUMP STATION ARE TO BE ADHERED TO IN ADDITION TO THESE CONSTRUCTION RECOMMENDATIONS.
SITE INVESTIGATION:
CONTRACTORS TO LIAISE WITH THEIR GEOTECHNICAL / CONSULTING ENGINEER TO CONDUCT A SITE / GEOTECHNICAL INVESTIGATION TO ESTABLISH INDICATIVE SUBSURFACE CONDITIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

LAYER 1 - FOUNDATION:
FOUNDATION MATERIAL - GRADE N20 MASS CONCRETE CAST AS A SUB BASE WITH 50MM LAYER OF COMPACTED DRAINAGE AGGREGATES BEDDING TO ACHIEVE THE FINISHED PREPARED BASE LEVEL

1. EXCAVATION DEPTH IS TO BE A MINIMUM OF 200MM BELOW BASE OF CASTING AND MAY BE DEEPER AS REQUIRED (OR POURING ADDITIONAL BLINDING) TO ACHIEVE A MINIMUM FOUNDATION BEARING CAPACITY OF 100KPA (HOLD POINT).
2. WHERE OVER EXCAVATION HAS OCCURRED BELOW THE PITS, SUCH OVER EXCAVATION SHALL BE FILLED WITH ABOVE MENTIONED FOUNDATION MATERIAL TO THE ENGINEER'S SATISFACTION.
3. PREPARE 200mm THICK LAYER SUB-BASE WITH ABOVE MENTIONED FOUNDATION MATERIAL.
4. BASE FOUNDATION SHALL BE INSPECTED BY AN EXPERIENCED GEO-TECHNICAL ENGINEER TO CONFIRM MINIMUM BEARING REQUIRED AND THERE IS NO RISK OF SETTLEMENT.

LAYER 2 - CONCRETE BALLAST
CONCRETE WITH MIN DENSITY = 2400kg/m³ AND GRADE 25MPa

1. POUR CALCULATED VOLUME OF CONCRETE AS RETAINER BALLAST AROUND BASE OF UNIT TO RESIST BUOYANCY & MUST BE CONSTRUCTED TO THE DIMENSIONS SHOWN ON THE SECTION (REFER BUOYANCY COMPUTATIONS)
2. MIN 200MM CLEARANCE NEED TO BE PROVIDED BETWEEN PIPE / PIPE CONNECTIONS' EXTERNAL SURFACE AND CONCRETE BALLAST FOR THE PIPEWORK ENCROACHING CONCRETE BALLAST

LAYER 3 - BACKFILL:
BACKFILL MATERIAL - 20mm CLASS 4 CRUSHED ROCK (NATURAL GRAVEL OR QUARRIED MATERIALS)

1. COMPACTED TO MIN. 95% RDD (STD) IN MAXIMUM LIFTS OF 200mm IN ACCORDANCE WITH AS1289.5.1. DO NOT SLUICE OR FLOOD THE BACKFILL INTO PLACE
2. MIN DENSITY 1850 Kg/m3 (HOLD POINT)

REFER SEWAGE PUMPING STATION CODE OF AUSTRALIA WSA 04.

NO BACKFILL PARTICLE SIZE GREATER 20MM AROUND OR SURROUNDING THE PITS IS ALLOWED. ALL CHOSEN MATERIALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING, AS REQUIRED:

1. CONSULTING ENGINEERS SITE INVESTIGATION
2. AS2758.1 AGGREGATES AND ROCK FOR ENGINEERING PURPOSES

COVER SLAB INSTALLATION:

1. PREPARE THE COMPACTED GROUND TO THE TOP OF THE UPPERMOST WELL INCREMENT.
2. AQUATEC SITE REPRESENTATIVE ALONG WITH INSTALLATION CONTRACTOR TO CHECK AND CONFIRM THIS PRIOR TO LOWERING THE COVER SLAB INTO POSITION.
3. OVERHANG LOAD MUST BEAR ON BACKFILLED GROUND WHEN INSTALLING ONTO FINAL RING SEGMENT.

PERIMETER:
PLACE COMPACTED BACKFILL UP TO FINISHED NATURAL SURFACE LEVEL AROUND ITS PERIMETER. MAINTAIN GOOD TRANSITION BETWEEN ORIGINAL SURFACES AND THE NEW.
COMPACTION:
COMPACTION AROUND PUMP STATION SITE IS TO BE HOLD POINT & SHALL BE IN ACCORDANCE WITH AS1289.5 AND QUALIFIED GEOTECHNICAL ENGINEER SHALL BE ON SITE DURING COMPACTION FOR SUPERVISION & CERTIFICATION IN ACCORDANCE WITH REQUIREMENTS & RECOMMENDATIONS SPECIFIED BY SITE SPECIFIC GEOTECHNICAL ENGINEERS.
GEOTEXTILE AND/OR GEOGRID REINFORCEMENT:
INSTALL GEOTEXTILE / GEOGRID REINFORCEMENT OR SUITABLE MEASURES AGAINST SETTLEMENT AND OTHER ADVERSITIES IN ACCORDANCE WITH SITE SPECIFIC GEOTECHNICAL ENGINEER'S REQUIREMENTS & RECOMMENDATIONS
EXCAVATION REQUIREMENTS:
EXCAVATION SUPPORT (I.E. BATTER SLOPES, SHIELD SUPPORT / SHORING BOX ETC.) TO BE DESIGNED AND CONSTRUCTED BY CIVIL CONTRACTORS IN ACCORDANCE WITH SITE SPECIFIC GEOTECHNICAL ENGINEER'S REQUIREMENTS & RECOMMENDATIONS
TESTING AND INSPECTION:
TESTING & INSPECTION IS TO BE HOLD POINT AND TO BE IN ACCORDANCE WITH THE MINIMUM FIELD DENSITY TESTING FREQUENCY/EXTENT, LEVEL OF SUPERVISION REQUIREMENTS ETC. SPECIFIED BY THE SITE SPECIFIC GEOTECHNICAL ENGINEERS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. INSPECTION OF THE CIVIL CONTRACTOR SITE WORKS AND METHOD OF INSTALLATION MUST BE PERFORMED BY A QUALIFIED GEOTECHNICAL ENGINEER TO VERIFY THE STANDARDS REQUIREMENTS HAVE BEEN MET.
SITE SPECIFIC RECOMMENDATION:

1. GEOTECHNICAL SUPERVISION DURING CONSTRUCTION IS RECOMMENDED TO ASSIST THE CONSTRUCTION AND EVALUATE THE EXCAVATION STABILITY. CONTRACTORS TO LIAISE WITH SITE SPECIFIC GEOTECHNICAL ENGINEERS FOR TESTING REQUIREMENTS (I.E FIELD DENSITY TESTING FREQUENCY/EXTENT) & INSPECTION REQUIREMENTS (I.E. LEVEL OF SUPERVISION), AND TO BE IN ACCORDANCE WITH SITE SPECIFIC GEOTECHNICAL ENGINEERS ADVISE.
2. CONTRACTORS TO ADHERE TO ANY EARTHWORK, EXCAVATION, BACKFILL, CONSTRUCTION, SITE SPECIFIC TREATMENT REQUIREMENTS/RECOMMENDATIONS SPECIFIED BY SITE SPECIFIC GEOTECHNICAL ENGINEERS (I.E. DRAINAGE MEASURES, DE-WATERING MEASURES, GEOTEXTILE/GEOGRID REINFORCEMENT MEASURES AGAINST SETTLEMENT, EXCAVATION SUPPORT REQUIREMENTS, EROSION & SEDIMENT CONTROL MEASURES, MOISTURE CONTROL MEASURES, TREE REMOVAL/PLANTATION MEASURES, ROOT TREATMENTS, ACID SULFATE SOIL MANAGEMENT MEASURES).
3. CONTRACTORS TO ENSURE BEARING CAPACITY > 100 KPA IS AVAILABLE AT FOUNDATIONS.
4. CONTRACTORS TO REMOVE ANY EXISTING SOIL (I.E FILL, TOPSOIL, DISTURBED/WEAKENED SOILS, ORGANIC/DELETERIOUS/PERISHABLEMATTER) FROM THE PUMP STATION SITE, SPECIFIED BY SITE SPECIFIC GEOTECHNICAL ENGINEERS AS NOT RECOMMENDED/SUITABLE FOR STRUCTURAL FILL.
5. CONTRACTORS TO TAKE NECESSARY PRECAUTIONS/ TREATMENTS TO PREVENT ANY STRUCTURAL DAMAGES TO THE PUMP STATION STRUCTURES & PIPEWORK DUE TO ANY ADVERSE SITE SOIL CONDITIONS (I.E. FILL, CONTAMINATED/ REACTIVE/ SOFT/ COLLAPSING/DISPERSIVE/ FISSURED SOILS, SETTLEMENTS, ABNORMAL MOISTURE CONDITIONS, TREES/ROOTS, ACID SULFATE SOIL)
6. CONTRACTOR TO INVESTIGATE IF THERE ARE ANY UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF EXCAVATIONS.
7. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING NO PART SHALL BE OVERSTRESSED UNDER CONSTRUCTION ACTIVITIES.
8. ALL EARTHWORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 3798-2007

CIVIL CONTRACTOR SCOPE OF WORKS | AQUATEC SCOPE OF WORKS

REV	REVISION DETAILS	DRN	CKD	APP	DATE	REF. NUMBER	REFERENCE DOCUMENT
A	ISSUED FOR REVIEW	RR	JG	JG	16/04/24	20333-80101	OP20333 Courtney Drive Stage 2_PS Buoyancy Comps_R1

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AQUATEC

Drawn	RR
Checked	JG
Approved	JG
Scale	AS SHOWN

This Drawing must not be used for Construction unless signed as Approved

Original Size A1

Client: GOLD COAST CITY COUNCIL
Project: COURTNEY DRIVE STAGE 2
JOB: SEWER PUMP STATION
Title: BACKFILL DETAILS

OP20333	ISSUED FOR REVIEW (IFR01)	20333 -20001	A
Project Number	Customer Submission Status	Drawing Number	Revision