

SHIRE OF CHAPMAN VALLEY

NABAWA CHANGEROOMS

STORMWATER DISPOSAL

12692227



LOCALITY PLAN
NTS

DRAWING LIST

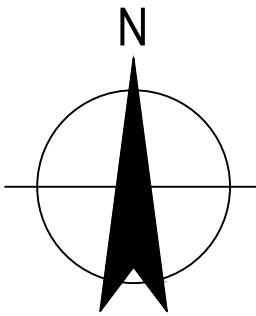
DRG No.	DRAWING TITLE
12692227-GHD-00-00-DRG-HY-00001	COVER SHEET, LOCALITY PLAN AND DRAWING LIST
12692227-GHD-00-00-DRG-HY-00002	HYDRAULICS GENERAL AND SPECIFICATIONS NOTES
12692227-GHD-00-00-DRG-HY-00003	SITE PLAN - RAINWATER HARVESTING SYSTEM AND STORMWATER OVERFLOW
12692227-GHD-00-00-DRG-HY-00004	TYPICAL DETAILS

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Author	G.GURREA	Drafting Check	C.PISAWIS
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Project No.
12692227

Client	SHIRE OF CHAPMAN VALLEY
Project	NABAWA CHANGEROOMS STORMWATER DISPOSAL
Status	TENDER

Drawing Title
COVER SHEET, LOCALITY PLAN
AND DRAWING LIST

12692227-GHD-00-00-DRG-HY-00001

Size
A1

Rev
C01

SPECIFICATION NOTES

SCOPE OF WORK

1. THE SCOPE OF WORK INCLUDES THE SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF THE SYSTEMS AS SHOWN ON THE SERVICES DRAWINGS. THE CONTRACTOR IS REQUIRED TO PROVIDE AND INSTALL ALL THE REQUIRED MATERIALS TO ENSURE THE FULL, CORRECT, COMPLIANT AND SAFE OPERATION OF THE SYSTEMS.
2. REFER TO THE ARCHITECTURAL SPECIFICATION FOR THE PRELIMINARIES AND HAVE ALLOWANCES IN THE SERVICES TENDER FOR ALL ASPECTS OF THIS SECTION.
3. PLUMBING CONTRACTOR TO PROVIDE AND INSTALL ALL SANITARY FIXTURES AND FITTINGS IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS AND SPECIFICATION.
4. PROVIDE A SET OF DRAWINGS, TO THE SATISFACTION OF THE CLIENT AS PART OF PRACTICAL COMPLETION. THE AS-BUILT DRAWINGS SHALL COMPREHENSIVELY REFLECT DETAILS OF ALL INSTALLED SYSTEMS AND COMPONENTS, AS DETAILED IN THE SCOPE OF WORK.
5. STORMWATER SYSTEM SHALL BE TESTED IN ACCORDANCE WITH AS3500.3. HYDROSTATIC TEST SHALL BE CARRIED OUT AND TEST RESULTS RECORDED AND INCLUDED WITH THE O & M MANUALS.

TESTING AND INSPECTIONS

1. PAY ALL LOCAL GOVERNMENT APPLICATION FEES AND COSTS, INCLUDING THE TESTING OF THE INSTALLATION AND COSTS FOR INSPECTION BY LOCAL AUTHORITY. UNO.
2. UNDERTAKE ALL OF THE TESTING REQUIREMENTS OF THESE DRAWINGS, THE CONTRACT DOCUMENTS, RELEVANT LEGISLATION, CODES, AND STANDARDS. UNO.

RELEVANT LEGISLATION, ACTS AND REGULATIONS

1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH WESTERN AUSTRALIA, ACTS AND REGULATIONS.
 - A. NATIONAL CONSTRUCTION CODE 2022
 - B. BUILDING CODE OF AUSTRALIA 2019
 - C. PLUMBING AND DRAINAGE ACT 2018
 - D. WATER SERVICE ACT 2012
2. WORKS SHALL BE CONSTRUCTED BY SUITABLE QUALIFIED AND LICENSED TRADE PEOPLE.
3. THE FOLLOWING LIST CONTAINS A NON-EXHAUSTIVE LIST OF THE LATEST GAZETTED STANDARDS REQUIRED FOR THE COMPLIANT DESIGN AND INSTALLATION OF HYDRAULIC SERVICES.

STANDARD	YEAR	TITLE
A. AS 1345	1995	IDENTIFICATION OF THE CONTENTS OF PIPES, CONDUITS, AND DUCTS (RECONFIRMED 2018)

DRAWINGS

1. THESE DRAWINGS ARE GUIDED ONLY FOR THE LOCATION AND LAYOUT OF THE SERVICE PIPES.
2. DO NOT SCALE OFF THESE DRAWINGS.

CO-ORDINATION

1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS, SPECIFICATIONS, AND DRAWINGS.
2. THROUGHOUT THE PROCESS OF EXECUTION OF THE WORKS, THE HYDRAULIC CONTRACTOR WILL BE RESPONSIBLE FOR THE COORDINATION OF THE DESIGN AND INSTALLATION WITH OTHER TRADES.

LOCATION OF SERVICES

1. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE FINAL SET-OUT OF FIXTURES AND FITTINGS.
2. THE LOCATION AND MOUNTING HEIGHTS OF THE SERVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. FINAL LOCATIONS AND MOUNTING HEIGHTS SHALL BE CONFIRMED ON SITE PRIOR TO INSTALLATION.

LEVELS

1. VERIFY THAT ALL INVERT LEVELS, SURFACE LEVELS AND CLEARANCE ARE CORRECT AND OBTAINABLE PRIOR TO COMMENCING WORKS.
2. ALL LEVELS ARE SHOWN IN METRE AHD. UNO.

MEASUREMENTS

1. ALL DISTANCES ARE SHOWN IN MILLIMETRES. UNO.
2. MEASUREMENTS OF QUANTITIES ARE IN ACCORDANCE WITH AS ISO 1000.

PIPE DIAMETERS

1. ALL PIPE DIAMETERS DETAILED ON THESE DRAWINGS ARE SHOWN AS NOMINAL DIAMETERS. UNO.

INDIVIDUAL CONTROL VALVES

1. ALL FIXTURES TO HAVE INDIVIDUAL ISOLATION VALVES BELOW FIXTURE AND SECURED TO WALL WITH THREADED PIPE.

PIPEWORK IDENTIFICATION

1. PIPELINES SHALL BE IDENTIFIED IN ACCORDANCE WITH AS/NZS 3500 SERIES AND SHALL INCLUDE IDENTIFICATION TAPE FOR UNDERGROUND SERVICES IN ACCORDANCE WITH AS/NZS 2648.1. INSTALL SO THAT MARKING ARE VISIBLE FOR INSPECTION.

STAGING REQUIREMENTS

1. ALLOW TO ACCOMMODATE VARIOUS ASPECTS OF STAGING AS REQUIRED.

DEMOLITION

1. OBTAIN A SET OF ARCHITECTURAL DEMOLITION DRAWINGS AND INSPECT THE SITE TO ASSESS THE EXTENT OF THE DEMOLITION WORKS.
2. PROVIDE ALL TEMPORARY SERVICES AS REQUIRED THROUGHOUT THE WORKS.
3. INVESTIGATE PIPEWORK AS WORK PROCEEDS, ASCERTAIN THE ORIGIN OF THE SUPPLY, AND WHERE THE PIPEWORK TERMINATES.

REDUNDANT SERVICES

1. ALL EXISTING SERVICES MADE REDUNDANT FROM THIS WORK AND EXISTING REDUNDANT SERVICES SHALL BE REMOVED AND SEALED OFF IN ACCORDANCE WITH THESE DRAWINGS, THE CONTRACT DOCUMENTS AND TO THE SATISFACTION OF THE LOCAL AUTHORITY.

SURVEY OF EXISTING DRAINAGE

1. ALL EXISTING SANITARY DRAINAGE PIPEWORK THAT IS TO BE CONNECTED SHALL BE INSPECTED USING CCTV AND SUBJECTED TO HYDROSTATIC TEST.
2. THE HYDRAULIC CONTRACTOR SHALL CERTIFY THAT THE EXISTING PIPEWORK IS IN GOOD CONDITION IN ACCORDANCE WITH AS/NZS 3500.2, HAS BEEN SUBJECT TO HYDROSTATIC TEST AND IS CLEAR OF ANY OBSTRUCTIONS (DEBRIS, TREE ROOTS, SILT, ETC.).
3. HYDROSTATIC TEST SHALL BE IN ACCORDANCE WITH AS/NZS 3500.2 SECTION 15 AND DEEMED AS ACCEPTABLE WHEN THESE REQUIREMENTS ARE MEET. PROVIDE THE REPORT OF THE FINDINGS TO THE CLIENT OR CLIENT'S REPRESENTATIVE.

SLAB PENETRATION WORKS

1. CARRY OUT SUITABLE GROUND-PENETRATING RADAR (GPR) OR X-RAYING OF SLABS TO LOCATE ALL REINFORCING STEEL TO ALLOW LOCATION OF PENETRATIONS TO CLEAR ALL STRUCTURAL REINFORCING.
2. SUBMIT A PENETRATION PLAN SHOWING DIMENSIONED LOCATIONS OF PENETRATIONS, SIZES, DEPTHS, AND LOCATION OF REINFORCING STEEL. SUBMIT PLAN AND METHODOLOGY FOR CORING THE SLAB.
3. ONLY PERFORM PENETRATIONS FOLLOWING WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER.
4. MAKE GOOD ALL EXPOSED REINFORCING BARS CAUSED BY THE WORKS WITH AN APPROVED PREVENTIVE CEMENTITIOUS REINFORCING STEEL COATING.

CERTIFICATION OF WORKS

1. DURING THE PROGRESS OF THE WORKS, INSTALL ALL WORKS TO COMPLY, AND PROVIDE AND ISSUE CERTIFICATES TO STATE THAT THE HYDRAULIC SERVICES HAVE BEEN INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, AUTHORITIES REQUIREMENTS AND AUSTRALIAN STANDARDS. THIS CERTIFICATE MUST BE SIGNED AND ISSUED PRIOR TO ANY APPLICATION FOR A MONTHLY PROGRESS PAYMENT.
2. AT THE COMPLETION OF THE WORKS AND PRIOR TO THE SUBMISSION OF FINAL PAYMENT, THE CONTRACTOR SHALL MAKE ALL NECESSARY APPLICATIONS, PAY ALL FEES, AND OBTAIN AND ISSUE CERTIFICATES INDICATING THAT THE WORKS:
 - COMPLY WITH THE CURRENT LEGISLATION
 - COMPLY WITH THE REQUIREMENTS OF THE RELEVANT AUTHORITY
 - COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS
 - HAVE BEEN TESTED AND COMMISSIONED FOR THE FULL OPERATING CONDITIONS.
3. WHEREVER APPLICABLE, THE RELEVANT AUTHORITY SHALL ISSUE A CERTIFICATE OF COMPLIANCE. WHERE THIS IS NOT A STANDARD PRACTICE, THE CONTRACTOR SHALL PROVIDE A CERTIFICATE OR LETTER OF CERTIFICATION WHICH WILL GUARANTEE THAT THE FINAL INSTALLED WORKS COMPLY WITH THE RELEVANT AUTHORITIES' REGULATIONS, REQUIREMENTS AND CONDITIONS.

WORKMANSHIP, MATERIALS, EQUIPMENT, AND COMPONENTS

1. ALL WORKS SHALL BE CONSTRUCTED AS SUITABLY QUALIFIED AND LICENSED TRADES PERSONS IN ACCORDANCE WITH WESTERN AUSTRALIA CONSTRUCTION COMMISSION ACT.
2. ALL PIPEWORK, FITTINGS, FIXTURES AND ACCESSORIES SHALL HAVE MP 52 APPROVAL, BE CERTIFIED AND AUTHORISED BY THE WATERMARK CERTIFICATION SCHEME, AND LISTED ON THE WATERMARK PRODUCT DATABASE. DO NOT PROVIDE (WITHOUT PRIOR WRITTEN APPROVAL) PRODUCTS THAT ARE OBSOLETE, DISCONTINUED OR ABOUT TO BE DISCONTINUED.
3. ALL WORKMANSHIP PROVIDED BY THE CONTRACTOR UNDER THIS SCOPE WILL BE OF GOOD QUALITY AND TO INDUSTRY STANDARDS. THE MATERIALS AND WORKMANSHIP SHALL BE TO THE APPROVAL OF THE CLIENT (OR NOMINATED REPRESENTATIVE)
4. ALL DEFECTIVE MATERIALS AND WORK, WHEN DIRECTED IN WRITING, SHALL BE RECTIFIED AND/OR REMOVED FROM THE WORKS AT THE CONTRACTORS EXPENSE AND WITHOUT ANY DELAY TO THE CONSTRUCTION PROGRAM.
5. PROVIDE EQUIPMENT AND ASSOCIATED ACCESSORIES WHICH ARE THE PRODUCTS OF ESTABLISHED MANUFACTURERS REGULARLY ENGAGED IN THE MANUFACTURE OF SUCH EQUIPMENT, WHO ISSUE COMPREHENSIVE RATING DATA AND CERTIFIED TEST DATA ON THEIR PRODUCTS.

DEFECTS LIABILITY (WARRANTY)

1. GUARANTEE ALL WORK AND MATERIALS AS TO QUALITY, WORKMANSHIP AND AGAINST DEFECTS, FOR A PERIOD OF TWELVE MONTHS FROM THE DATE OF ISSUE OF THE 'CERTIFICATE OF PRACTICAL COMPLETION'. DURING THIS PERIOD, PROMPTLY REPLACE ALL DEFECTIVE EQUIPMENT, FIXTURES AND MATERIALS AT NO COST.
2. WARRANTIES REQUIRED ON ALL EQUIPMENT. EQUIPMENT REQUIRED TO EXCEED THE MINIMUM DEFECTS LIABILITY PERIOD AND TO BE PROVIDED WITH RELEVANT LITERATURE AND WARRANTIES WHERE NECESSARY.

AS CONSTRUCTED DRAWINGS

1. 'AS CONSTRUCTED' DRAWINGS TO BE PROVIDED IN BOTH ADOBE PDF AND NATIVE FILE FORMAT.
2. THE 'AS CONSTRUCTED' DRAWINGS SHALL SHOW THE INSTALLED LOCATIONS OF BUILDING ELEMENTS, PIPEWORK AND EQUIPMENT. OFF-THE-GRID DIMENSIONS SHALL BE SHOWN, WHERE APPLICABLE, INCLUDING THE RELATIONSHIP TO BUILDING STRUCTURE AND OTHER SERVICES, AND CHANGES MADE DURING COMMISSIONING AND THE MAINTENANCE PERIOD.

OPERATION AND MAINTENANCE MANUAL

1. THE AIM OF O&M MANUALS BEING SUPPLIED IS TO PROVIDE A DETAILED UNDERSTANDING OF THE EQUIPMENT, SYSTEMS AND PROCEDURES REQUIRED FOR TRAINING OPERATORS, AND THEREFORE SHALL CONFORM THE FORMAT REQUIRED BY THE CLIENT.
2. PROVIDE TWO SETS (HARD COPY AND DIGITAL) OF OPERATION AND MAINTENANCE MANUALS, CONTAINING COMMISSIONING INSTRUCTIONS, SERVICE AND MAINTENANCE INSTRUCTIONS, COPIES OF COMMISSIONING TEST REPORTS, WARRANTIES, AND GUARANTEES.
3. THE O&M MANUALS SHALL ALSO INCLUDE AS A MINIMUM:
 - NAME, ADDRESS, EMAIL, AND TELEPHONE NUMBERS OF THE MANUFACTURER AND SUPPLIER
 - NAME, ADDRESS, EMAIL, AND TELEPHONE NUMBERS FOR ALL CONSULTANTS AND CONTRACTORS INVOLVED IN THE DESIGN AND CONSTRUCTION PHASES.
 - TECHNICAL DESCRIPTION AND MODES OF OPERATION OF THE SYSTEMS INSTALLED.
 - PRODUCT LITERATURE FOR THE SYSTEMS INSTALLED (PIPEWORK, VALVES, EQUIPMENT, ETC.) AND CONTACT DETAILS FOR SUPPLIERS AND MANUFACTURERS OF THESE SYSTEMS.
 - MANUFACTURERS OPERATIONAL AND SAFETY LITERATURE, AS APPROPRIATE.
 - EMERGENCY MAINTENANCE PROCEDURES, INCLUDING TELEPHONE NUMBERS FOR EMERGENCY SERVICES, AND AFTER-HOURS CONTACTS FOR SUPPLIERS AND CONTRACTORS.
 - STATUTORY CERTIFICATES OF COMPLIANCE FOR ALL HYDRAULIC WORK, COPIES OF MANUFACTURERS' WARRANTIES, CERTIFICATES FROM AUTHORITIES AND UTILITIES, PRODUCT CERTIFICATION, COPIES OF TEST CERTIFICATES, ETC.
 - AS-BUILT DRAWINGS, SYSTEM SCHEMATICS, ETC.
 - COMMISSIONING RECORDS.

WORKPLACE HEALTH AND SAFETY

GENERAL

1. FOR RESIDUAL RISKS IDENTIFIED FROM THE DESIGN PROCESS, REFER TO THE PROJECT RISK REGISTER.
2. CHANGES TO HYDRAULIC SERVICES DESIGN SHALL BE REVIEWED AGAINST THE PROJECT RISK REGISTER AND MAY REQUIRE FURTHER RISK ASSESSMENT.

SAFETY IN DESIGN

GENERAL

1. THE SAFETY RISK MITIGATION ITEMS BELOW ARE BASED ON GHD'S DESIGN OFFICE EXPERIENCE AND DO NOT NECESSARILY ACCOUNT FOR ALL CONSTRUCTION, OPERATION, MAINTENANCE, AND DEMOLITION SAFETY RISKS. BASED ON INFORMATION AVAILABLE WHEN THIS DRAWING WAS MADE. IN ITS CAPACITY AS DESIGNER ONLY, GHD HAS TRIED TO IDENTIFY SAFETY RISKS PERTAINING TO CONSTRUCTION, OPERATION, MAINTENANCE AND DEMOLITION PHASES OF THE ASSET. INCLUSION (OR NOT) OF ANY ITEM DOES NOT REDUCE OR LIMIT OBLIGATIONS OF CONSTRUCTOR, USER, MAINTAINER AND DEMOLISHER TO UNDERTAKE APPROPRIATE RISK MANAGEMENT ACTIVITIES TO REDUCE RISK AND IS NOT AN ADMISSION BY GHD THAT INCLUSION OF ANY ITEM IS THE DESIGNER'S RESPONSIBILITY.
2. CARRY OUT WORK IN A SAFE MANNER IN ACCORDANCE WITH APPLICABLE LEGISLATION, STATUTORY REGULATIONS, BY-LAWS OR RULES. CONTRACTOR IS RESPONSIBLE FOR OCCUPATIONAL HEALTH AND SAFETY OF SITE PERSONNEL AND GENERAL PUBLIC, IN ACCORDANCE WITH WORK HEALTH AND SAFETY ACT 2010, LEGISLATIVE REQUIREMENTS, ASSOCIATED REGULATIONS AND CODES OF PRACTICE, INDUSTRIAL AGREEMENTS AND ACCEPTED INDUSTRY PRACTICE, INDUSTRIAL AGREEMENTS AND ACCEPTED INDUSTRY PRACTICE.
3. CONSTRUCT BUILDING ELEMENTS THAT CONTRIBUTE TO SAFETY, SUCH AS HANDRAILS AND TO BOARDS, FALL ARREST SYSTEMS, ACCESS STAIRS ETC. AS EARLY AS POSSIBLE.
4. PROVIDE SAFETY BARRIERS AT EDGES OF OPENINGS AND ELEVATED AREAS.
5. REVIEW ADEQUACY OF WORKING SPACE AVAILABLE FOR CONSTRUCTION ACTIVITIES. ENSURE SEPARATION OF PLANT AND PERSONNEL ON SITE, INCLUDING MOVEMENTS OF BOTH.
6. LOCATE LIFTING SLEW AND LAY DOWN AREAS AWAY FROM REGULAR CONSTRUCTION TRAFFIC.
7. PROVIDE PROTECTION TO PERSONNEL FROM PLANT AND EQUIPMENT.
8. ENSURE ISOLATION SAFE SYSTEMS OF WORK OR PROTECTIVE MEASURES ARE INSTALLED BEFORE WORKING NEAR LIVE ELECTRICAL INFRASTRUCTURE. PROVIDE PROTECTION OF ELECTRICAL OVERHEAD WIRING SYSTEMS DURING CONSTRUCTION.
9. WRITTEN RISK ASSESSMENTS ARE ADVISED FOR ACCESS TO OPEN EXCAVATIONS.
10. PROVIDE ACCESS AND EGRESS TO EXCAVATIONS APPROPRIATE IN CASE OF INUNDATION, COLLAPSE, OR ENGULFMENT.
11. LOCATE STOCKPILES AND HEAVY EQUIPMENT INCLUDING CRANES AWAY FROM BURIED SERVICES AND BUILDING BOUNDARIES WHERE ADJACENT BASEMENTS ARE PRESENT.
12. SEEK ADVICE FROM SUITABLY QUALIFIED GEOTECHNICAL OR STRUCTURAL ENGINEER PRIOR TO OPERATION OF HEAVY SURFACE PLANT AND EQUIPMENT OR STOCKPILING MATERIAL NEAR OPEN EXCAVATIONS OR EXISTING RETAINING STRUCTURES.
13. DO NOT STOCKPILE MATERIAL BEHIND OR EXCAVATE IN FRONT OF EXISTING RETAINING WALLS UNTIL WALL STABILITY HAS BEEN REVIEWED BY SUITABLY QUALIFIED STRUCTURAL ENGINEER.
14. SEEK ADVICE FROM SUITABLY QUALIFIED STRUCTURAL ENGINEER BEFORE EXCAVATING BELOW EXISTING FOOTING LEVELS.
15. SEEK ADVICE FROM SUITABLY QUALIFIED STRUCTURAL ENGINEER IF PLANNING CRANE LIFTS OR HOIST INSTALLATION ON PARTIALLY ERRECTED OR SUSPENDED STRUCTURES.
16. SEEK ADVICE FROM SUITABLY QUALIFIED STRUCTURAL ENGINEER BEFORE CORING, CHASING, CUTTING OR REMOVAL OF EXISTING CONCRETE AND ENFORCEMENT.
17. HAVE SUITABLY QUALIFIED STRUCTURAL ENGINEER UNDERTAKE STRUCTURAL CHECK OF EXISTING CONCRETE, MASONRY, AND STUD WALLS WHERE FIXINGS OR EQUIPMENT IS TO BE ATTACHED.
18. MINIMISED SITE-BASED TREATMENTS (E.G. WELDING, CUTTING, SPRAY PAINTING, GRIT BLASTING ETC.), PROVIDE ADEQUATE PROTECTION SCREENING AND VENTILATION TO MINIMISE HAZARDS TO PERSONNEL IF SITE-BASED TREATMENT IS UNAVOIDABLE.
19. TRY TO AVOID WORKING IN CONFINED SPACES. IF CONFINED SPACES WORK CAN'T BE AVOIDED, PROVIDE SAFE WORK METHOD STATEMENT (SWMS) ADDRESSING MITIGATION OF RISKS. PROVIDE ADEQUATE SIGNAGE TO TEMPORARY AND PERMANENT CONFINED SPACES TO AS 2865.
20. AVOID HOT WORKS ON SITE PARTICULARLY IN TIMBER FRAMED STRUCTURES. HOT WORKS TO COMPLY WITH CLIENT PROCEDURES FOR "APPLICABLE HOT WORKS" PERMITS.

VARIABLE SPEED PRESSURE SYSTEM WITH ENCLOSURE

GENERAL

ALLIED PUMPS SINGLE VARIABLE SPEED PRESSURE SYSTEM INSIDE A WEATHERPROOF ENCLOSURE MODEL APV/S-524-2C-413583 COMPRISING VERTICAL MULTISTAGE PUMPS, MOUNTED ON HEAVY DUTY HDG BASE WITH STAINLESS STEEL PIPEWORK MANIFOLDS, VALVES, PRESSURE GAUGE, HYDRO PNEUMATIC ACCUMULATOR, PRESSURE SENSOR, FLOAT SWITCH (SUPPLIED LOOSE), AND ACCESSORIES.

NOTES

1. SYSTEM DUTY: 2 L/SEC @ 80 KPA
2. APPROXIMATE SKID SIZE: 1,100 mm (L) x 1,100 mm (W) x 1,100 mm (H)
3. CONNECTIONS: SUCTION 50 mm
DISCHARGE 50 mm

ELECTRICAL

1. THREE PHASE NEUTRAL AND EARTH SUPPLY TO SUIT 1 x 0.55 KW PUMPS.
2. THE FEEDING CIRCUIT BREAKER (BY OTHERS) SUPPLYING POWER TO THE CONTROL PANEL SHALL BE SELECTED AS PER AS/NZS 3000. NOISANCE TRIPPING MAY OCCUR IF NOT CORRECTLY SELECTED.
3. THE FOLLOWING VFC (DRY-CONTACTS) OUTPUTS ARE AVAILABLE:
 - A) COMMON FAULT
4. INTERCONNECTIONS BETWEEN LEVEL SWITCHES AND PUMP CONTROLLER IS BY INSTALLING CONTRACTOR.

RAIN WATER HARVESTING TANK

KINGSPAN RHINO WATER TANKS: CORRUGATED

MODEL : RT-200
CAPACITY : 197097 L
NO. OF TANKS : 2
HEIGHT OF TANK : 2.2m
DIAMETER OF TANK : 10.68m

PIPE SYSTEM	MINIMUM RATING
STORMWATER DRAINAGE	SN8 DWV SCJ



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Client SHIRE OF CHAPMAN VALLEY

Project NABAWA CHANGEROOMS
STORMWATER DISPOSAL

Status TENDER

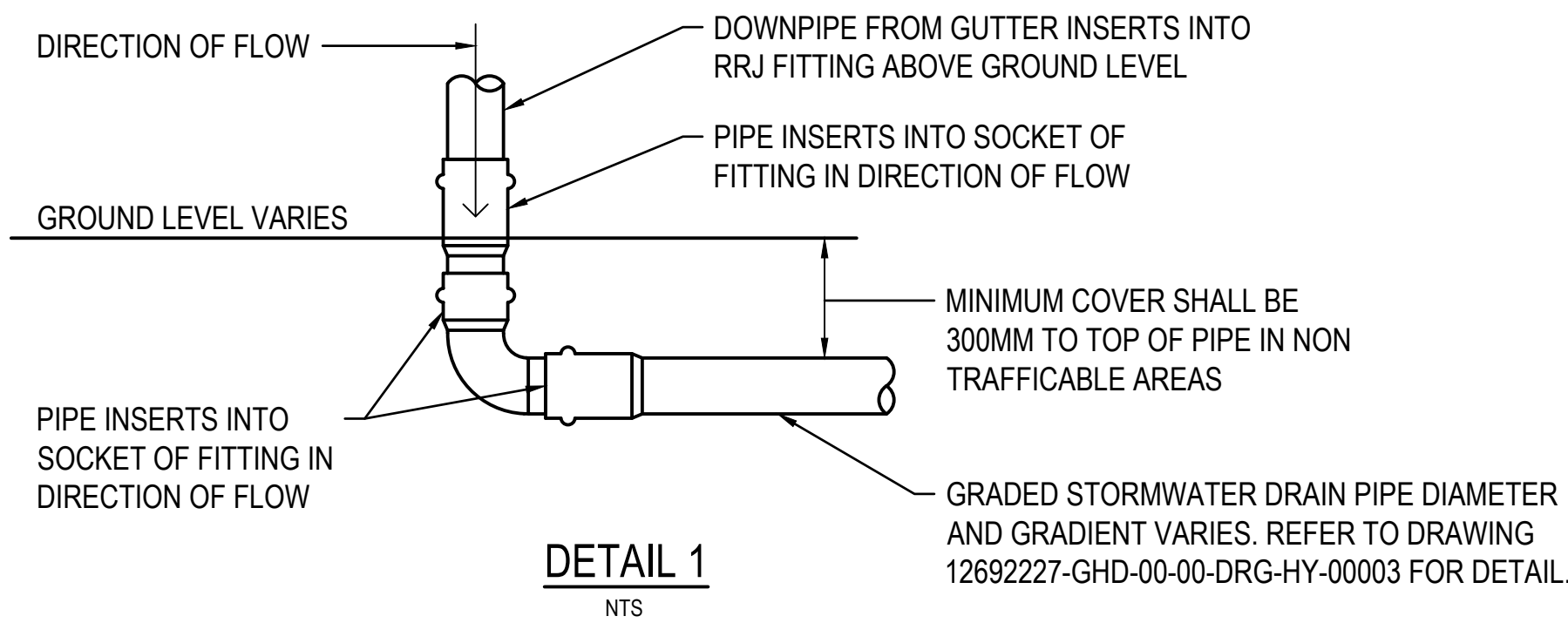
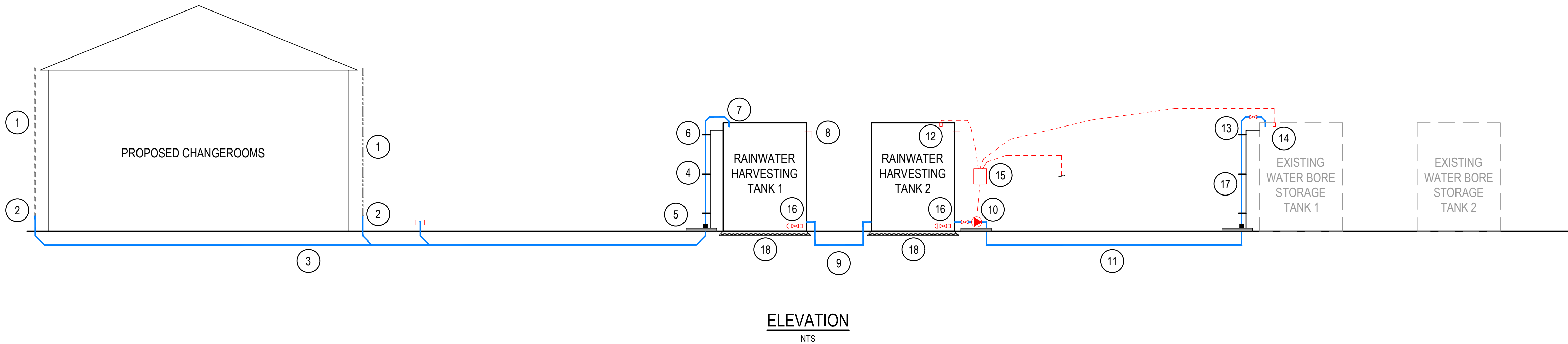
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HYDRAULICS
GENERAL AND SPECIFICATIONS NOTES

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Size
A1

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STORMWATER DRAWING NOTES:

1. SN8 uPVC DOWNPIPE. REFER TO ARCHITECTS DRAWINGS AND DETAILS AND SPECIFICATION FOR TYPE AND LOCATION.
2. SN8 uPVC DOWN PIPE TO DIRECT CONNECT TO UPVC BELOW GROUND STORMWATER DRAIN. CONNECTION TO BE LOCATED ABOVE GROUND LEVEL, SEALED AND WATER TIGHT. REFER TO DETAIL 1 ON THIS SHEET.
3. BELOW GROUND STORMWATER DRAIN, REFER TO 12692227-GHD-00-00-DRG-HY-00003 FOR ROUTE AND NUMBER OF CONNECTIONS.
4. GRAVITY STORM WATER DRAIN TO RISE UP FROM BELOW GROUND LEVEL AND CONNECT TO RAINWATER STORAGE TANK NO. 1.
5. PROVIDE 1.1m x 1.1m x 0.150m THICK CONCRETE PAD WITH MESH REINFORCEMENT AT THE BASE OF THE PIPE WHERE UPVC TRANSITIONS TO METAL ABOVE GROUND PIPE. STRUCTURAL ENGINEER TO ADVISE ON FURTHER DETAILS.
6. UNISTRUT SUPPORT SYSTEM FASTENED TO THE CONCRETE FOR THE STORMWATER RISER.
7. TANK TO BE PROVIDED WITH STRUCTURAL THICKENING AND OR SUPPORT TO MOUNT UNISTRUT FRAMING FOR PIPE SUPPORT.
8. Ø200mm TANK OVERFLOW WITH MECHANICALLY FASTENED INSECT AND MOSQUITO MESH.
9. INTERCONNECTING 150mm UPVC PIPING TO CONNECT TANKS IN SERIES. PIPING TO BE PROVIDED WITH VANDAL PROOF PROTECTIVE 5mm THICK METAL COVER.
10. 2.0L/S PUMP AND CONTROL PANEL WITHIN VANDAL AND WEATHER PROOF ENCLOSURE. MOUNT ON CONCRETE PLINTH AS PER NOTE 5.
11. Ø50mm PN12.5 HDPE BELOW GROUND TO EXISTING IRRIGATION TANKS.
12. UNTRASONIC LEVEL SENSOR LOW LOW LEVEL PUMP OFF OVERRIDE FUNCTION.
13. CONNECT TO THE EXISTING IRRIGATION TANKS. ALLOW TO LIAISE WITH THE EXISTING TANK MANUFACTURER TO DETERMINE APPROPRIATE CONNECTION METHOD AND LOCATION ON TANK.
14. ULTRASONIC LEVEL SENSOR TO OPERATE PUMP WHEN TANK REACHES A PREDETERMINED LOW LEVEL.
15. CONTROL PANEL FOR THE NEW RAINWATER STORAGE PUMP TO OVERRIDE THE EXISTING IRRIGATION PUMPS TO TAKE PRIORITY IN FILLING THE EXISTING TANKS OVER THE IRRIGATION PUMPS. ON LOW LEVEL SEQUENCE OF THE RAIN WATER TANK THE IRRIGATION PUMPS TAKE PRIORITY FOR FILLING THE EXISTING TANKS. ALLOW TO COMPLETE SITE INSPECTION AND LIAISE WITH IRRIGATION CONTRACTOR TO DETERMINE THE MATERIALS AND WORKS INVOLVED WITH THIS ARRANGEMENT.
16. Ø100mm CAPPED OFF BOLTED FLANGE CONNECTION FOR MAINTENANCE AND SLUDGE REMOVAL.
17. Ø40mm COPPER PIPE RISER CONNECT TO EXISTING TANK CONNECTION.
18. NEW STORMWATER TANK BASE COMPACTED AND INSTALLED TO MANUFACTURERS INSTRUCTIONS AND DETAILS.

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