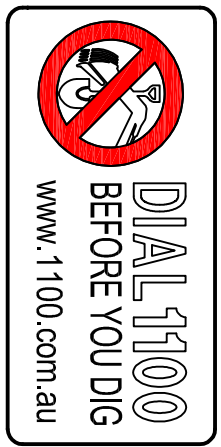



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UNDERGROUND SERVICES SEARCH SHOULD BE UNDERTAKEN PRIOR TO ANY EXCAVATION TAKING PLACE UPON THE SITE.



PREPARED FOR: Indegree Pty Ltd				
PROPOSED MIXED USE BUILDING 27 ADDISON STREET, SHELLHARBOUR				
ORIGINAL SIZE: A1				
SCALE: AHD	DATUM: AHD	CROSS SECTION H: V:		
LONG SECTION H: V:	DATE OF PLAN: 10/7/24			
CHECKED: C.P.M.	APPROVED: 			
DRAWN: P.S.	SHEET 1 OF 5 SHEETS			
JOB REF: 24070-C01				

CONCEPT PLAN OF DRAINAGE WORKS PROPOSED MIXED USE BUILDING 27 ADDISON STREET, SHELLHARBOUR

GENERAL

- G1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND CONSULTANT DRAWINGS AND SPECIFICATIONS. THE DEVELOPER/CONSULTANT / RELEVANT APPROVALS, AND OTHER WRITTEN INSTRUCTIONS THAT MAY BE ISSUED. THE CONTRACTOR IS TO MAKE THEMSELVES AWARE OF ALL SUCH DOCUMENTS.
- G2. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING FROM THE DRAWINGS. REFER ARCHITECT'S DRAWINGS FOR ALL DIMENSIONS.
- G3. REFER ANY DISCREPANCY TO THE ENGINEER/ARCHITECT.
- G4. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE APPROPRIATE AUSTRALIAN STANDARDS, SPECIFICATIONS OR CODES AND WITH THE REQUIREMENTS OF THE RELEVANT LOCAL AUTHORITY.
- G5. THE ALIGNMENT AND LEVEL OF ALL SERVICES SHOWN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL CONFIRM THE POSITION AND LEVEL OF ALL SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DAMAGE TO SERVICES SHALL BE RECTIFIED AT THE CONTRACTOR'S EXPENSE.
- G6. ALL SERVICES, OR CONDUITS FOR SERVING AND DRAINAGE SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF PAVEMENT CONSTRUCTION.
- G7. DRAINAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RELEVANT LOCAL AUTHORITY CONSTRUCTION SPECIFICATION AND THE CIVIL DRAWINGS.
- G8. NO WORK IS PERMITTED WITHIN ADJOINING PROPERTIES WITHOUT WRITTEN PERMISSION FROM THE OWNERS OR RESPONSIBLE AUTHORITY.
- G9. CONCRETE WORKS SHALL BE AS DETAILLED ON THE DRAWINGS WITH REFERENCE TO THE CONCRETE SPECIFICATION.

DRAINAGE

- D1. ALL DRAINAGE OUTLET PIPES / LEVELS SHALL BE CONFIRMED ON SITE. PRIOR TO CONSTRUCTION COMMENCING.
- D2. STORMWATER DRAINAGE SHALL BE GENERALLY IN ACCORDANCE WITH AS3500.3. PIPES OF 300mm DIA. AND SMALLER SHALL BE UPVC OR CONCRETE CLASS 7 TO AS1342. PIPES OF 375mm DIA. AND LARGER SHALL BE FRP OR CONCRETE CLASS 7 TO AS1342. RUBBER RING JOINTED UNO.
- D3. ALL PIPES WITHIN THE PROPERTY TO BE MIN. 100 DIA UPVC @ 1% MIN. GRADE. UNO.
- D4. ALL PITS WITHIN THE PROPERTY ARE TO BE FITTED WITH "WELDOLOK" OR APPROVED EQUIVALENT GRATES.
- LIGHT DUTY FOR LANDSCAPED AREAS
- HEAVY DUTY WHERE SUBJECT TO VEHICULAR TRAFFIC
- PITS WITHIN THE PROPERTY MAY BE CONSTRUCTED AS:
- 1) PRECAST STORMWATER PITS
- 2) CAST IN SITU MASS CONCRETE
- 3) ONLY 300 SQ. PITS IN LANDSCAPE AREAS CAN BE HDPE PLASTIC WHERE NOTED SUBJECT TO THE RELEVANT LOCAL AUTHORITY CONSTRUCTION SPECIFICATION
- D6. TRENCH DRAIN GRATES TO BE GALV. STEEL FRAME CAST INTO CONCRETE UNO.
- D7. PIPE / PIT BACKFILL TO BEDDING, HAUNCH AND OVERLAY ZONES IS TO BE 2 TO BLUE METAL SANDY LOAM OR EQUIV TAMP COMPACTED AT OPTIMUM MOISTURE. MAY VARY IN ROAD AREAS, IE SHARP CLEAN SAND, TO LOCAL AUTHORITY REQUIREMENTS.
- D8. MINIMUM PIPE COVER IS TYPICALLY 300mm AND 450mm IN ROADWAY AREAS.
- D9. ANY PIPES AT >16% GRADE REQUIRE CONCRETE BULKHEADS IN ACCORDANCE WITH AS 3500.3.2.
- D10. ENSURE ALL GRATES TO PITS ARE SET BELOW FINISHED SURFACE LEVEL WITHIN THE PROPERTY. TOP OF PIT R.L.S ARE APPROXIMATE ONLY AND MAY BE VARIED SUBJECT TO APPROVAL OF THE ENGINEER. ALL INVERT LEVELS ARE TO BE AGHEEVED.
- D11. ALL PITS 600x900 AND LARGER ARE TO HAVE A 2.0m SUBSOIL LINE DRAINED INTO THE UPSTREAM FACE AT INVERT.
- D12. ALL PITS ARE TO HAVE CONCRETE BENCHING TO OUTLET INVERT AND UP TO THIRD HEIGHT PIPE DIAMETER UNLESS SUMP NOTED OTHERWISE
- D13. THE CONTRACTOR IS TO BE AWARE OF THE OPENING TO DEPTH PIT REQUIREMENTS OF AS3500.3.2 IE:
- 450SQ. 600 MAX. DEPTH
- 600SQ. 900 MAX. DEPTH UNO.
- D14. PROVIDE STEP IRONS TO STORMWATER PITS GREATER THAN 1200 IN DEPTH.
- D15. SUBSOIL DRAINAGE SHALL BE PROVIDED TO ALL RETAINING WALLS & EMBANKMENTS, WITH THE LINES FEEDING INTO THE STORMWATER DRAINAGE SYSTEM.
- D16. ALL SERVICES TO BE LOCATED BY HAND DIGGING, BEFORE MECHANICAL EXCAVATION FOR THE SITE OUTLET

BASEMENT DRAINAGE

1. 300 WIDE GRATED DRAIN TO BE CONSTRUCTED AT BASEMENT ENTRANCE. DRAIN TO BE 400 DEEP. DRAINING AT 3.0% TO OUTLET. PROVIDE 1500 UPVC SEWER GRADE AT 1.0% TO COLLECTION/PUMP PIT. GRATING TO BE GALVANISED STEEL GRATE & FRAME.
2. CONSTRUCT FLOOR WASTE OR 300 SQUARE CONCRETE PIT AT BASE OF STAIRS PROVIDE 1500 UPVC SEWER GRADE AT 1.0% TO COLLECTION/PUMP PIT.
3. GRADE BASEMENT SLAB TO ADDITIONAL 3 FLOOR WASTES OR 300 SQUARE CONCRETE PITS EQUALLY SPACED ALONG CENTRE OF BASEMENT. PROVIDE 1500 UPVC SEWER GRADE AT 1.0% TO COLLECTION/PUMP PIT.

SPECIFICATION FOR PUMPS

1. TWO PUMPS -- 5537 332 ALINE PUMPS -- ALTERNATING PUMP CONTROL.
2. DRY TYPE INDUCTION MOTOR WITH BUILT IN OVERLOAD PROTECTION.
3. CONTROL PANEL TO BE KWIKFLOW DUAL CONTROL WITH HIGH LEVEL VISUAL ALARM AND:
- GALV STEEL WALL MOUNTED LOCKABLE PANEL
 - MAINS ISOLATOR SWITCH
 - DUTY SELECTION SWITCH (AUTO/OFF/MANUAL)
 - ALARM TEST BUTTON
 - 24 VOLT CONTROL CIRCUIT FOR FLOATS
 - 3 FLOAT SWITCHES WITH 8 METRE CABLE
4. DETAILS OF PIT INTERNAL PIPEWORK AND PUMPS INSTALLATION TO BE IN ACCORDANCE WITH THE MANUFACTURE'S INSTRUCTIONS
5. PUMP TO BE FIRE RATED IN ACCORDANCE WITH RELEVANT STATUTORY REGULATIONS.

EROSION AND SEDIMENT NOTES


- E1. ALL EROSION & SEDIMENT CONTROL DEVICES ARE TO BE PLACED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORKS. THE LOCATION OF SUCH DEVICES IS INDICATIVE ONLY AND FINAL POSITION SHOULD BE DETERMINED ON SITE.
- E2. ALL DEVICES ARE TO BE MAINTAINED TO THE STANDARDS OF THE NSW DEPARTMENT OF HOUSING'S SOIL AND WATER MANAGEMENT FOR URBAN DEVELOPMENT.
- E3. THE CONTRACTOR IS TO MAKE THEMSELVES AWARE OF ANY TREE PRESERVATION ORDER OR TREE REMOVAL. REQUIRED TREE PROTECTION MEASURES ARE TO BE IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
- E4. A LOG BOOK OR OTHER SUITABLE RECORDS MUST BE KEPT BY THE SITE SUPERVISOR IN ACCORDANCE WITH THE EPA'S RECORDS.
- E5. NO TOPSOIL, SILT OR EXCAVATED MATERIALS IS TO BE PLACED OUTSIDE THE LIMIT OF WORKS. MATERIAL IS TO BE STOCKPILED AS SHOWN / DIRECTED WITH SILT FENCE AND UPSTREAM DIVERSION BANKS.
- E6. DURING TRENCH EXCAVATION, ALL SPOIL IS TO BE PLACED ON THE UPSTREAM SIDE OF THE TRENCH AND TO THE SUPERINTENDENT'S REQUIREMENT.
- E7. DUST SUPPRESSION MEASURES ARE TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
- E8. VEGETATE AND MAINTAIN SILT TRAPS AROUND ALL SURFACE INLET PITS UNTIL CATCHMENT IS VEGETATED OR PAVED.
- E9. A TURF STRIP SHALL BE PROVIDED BEHIND ALL KERBS, INLET PITS AND DRAINS AT THE COMPLETION OF THEIR FORMATION.
- E10. TOPSOIL SHALL NOT BE RESPAED ON AREAS OTHER THAN SPECIFIED. IE: TURF / LANDSCAPE. FOOTPATH, CATCH OR SWALE DRAINS.
- E11. ALL DISTURBED AREAS ARE TO BE TURFED/SEEDED AND FERTILIZED WITHIN 14 DAYS OF EXPOSURE. THEY SHALL BE ADEQUATELY WATERED TO PROMOTE GROWTH. GROWTH SHALL BE TO THE COUNCIL/SUPERINTENDENT'S SATISFACTION. THE CONTRACT IS NOT COMPLETE UNTIL THE REVEGETATION IS ACCEPTED BY COUNCIL. SOME AREAS MAY REQUIRE THE PLACEMENT OF TURF TO ACHIEVE SATISFACTORY REVEGETATION.
- E12. TRACKS REMOVING EXCAVATED/DENUDISHED MATERIAL SHOULD TRAVEL ON STABILISED CONSTRUCTION PATHS AND ALL WEATHER SITE ACCESS PROVIDED IN ACCORDANCE WITH COUNCIL REQUIREMENTS. ANY SEDIMENT DEPOSITED ON THE ROAD OR ROAD RESERVE IS TO BE REMOVED IMMEDIATELY.
- E13. CONCRETE PUMPS AND CRANES MUST NOT OPERATE FROM THE FOOTPATH OR ROADWAY UNLESS SPECIFIC COUNCIL PERMISSION IS OBTAINED.
- E14. PEDESTRIAN AND TRAFFIC CONTROL MEASURES ARE REQUIRED TO BE IMPLEMENTED AND MAINTAINED DURING CONSTRUCTION IN ACCORDANCE WITH AS1742/MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- E15. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL MEASURES ARE TAKEN DURING THE COURSE OF THE CONSTRUCTION TO PREVENT SEDIMENT EROSION AND POLLUTION OF THE DOWNSSTREAM SYSTEM. ALL SEDIMENT CONTROL DEVICES TO BE INSPECTED AFTER EACH RAINFALL EVENT FOR DAMAGE AND TRAPPED SEDIMENT TO BE REMOVED TO A NOMINATED STOCKPILE.

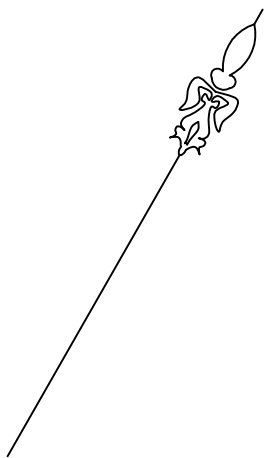
ORDER OF CONSTRUCTION

- REFER TO DETAILED CONSTRUCTION SCHEDULE FOR SPECIFIC DETAILS.
1. PROVIDE SILT FENCE AROUND BOUNDARIES AS SHOWN ON THE PLAN. RETURNS TO BE PROVIDED EVERY 20M MAXIMUM.
2. CONSTRUCT SILT TRAPS AROUND EXISTING PITS & SEDIMENT TRAP
3. PROVIDE DIVERSION BANKS ALONG THE SIDES AS SHOWN ON THE PLAN BANKS TO SPILL ONTO SCALOPED SILT FENCING.
4. PROVIDE TEMPORARY ENTRY/EXIT AREA AS SHOWN.
5. STRIP TOPSOIL FROM IMMEDIATE WORK AREA AND REMOVE SURPLUS AS DIRECTED. STOCKPILE REMAINED ON SITE IN AREA DESIGNATED WITH DIVERSION BANK IN PLACE UPSLOPE AND SILT FENCE IN PLACE DOWNSLOPE.
6. CONSTRUCT BULK EARTHWORKS FOR BUILDINGS.
7. CONSTRUCT BUILDINGS & AUXILIARY STRUCTURES
8. CONSTRUCT ROAD & CIVIL WORKS TO DETAILS SHOWN ON PLANS.
9. DURING CONSTRUCTION OF DRAINAGE PIPELINES TEMPORARY PROTECTION TO BE PROVIDED AROUND PITS & PIPE OPENINGS. ALL SPOIL TO BE STOCKPILED ON HIGH SIDE OF TRENCH PRIOR TO BACKFILLING.
10. PROVIDE TURF STRIPS BEHIND ROADS.
11. REMOVE SEDIMENT CONTROL MEASURES.

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 **DIAL 1100**
BEFORE YOU DIG
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STORMWATER PIT TO SPEC.
DOWN PIPE
SURFACE FLOW DIRECTION
EXISTING LEVEL
PROPOSED LEVEL
PROPOSED STORMWATER LINE
SUBSOIL DRAIN

cpm
ENGINEERING

**Civil & Structural
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Mobile: 0412 401 282
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PROPOSED MIXED USE BUILDING
7 ADDISON STREET, SHELLHARBOUR

G SECTION		CROSS SECTION	
H :	V :	H :	V :

OF PLAN: 10.7.24	APPROVED
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CKED: C.P.M.	Christopher P. Morris BE (Hons) MEng CP Eng MFRS CPEQ
PS.	

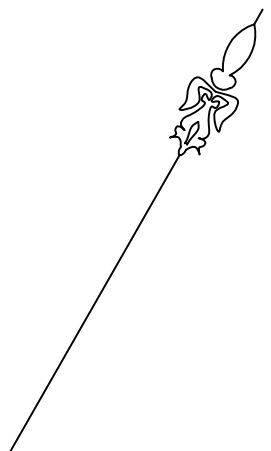
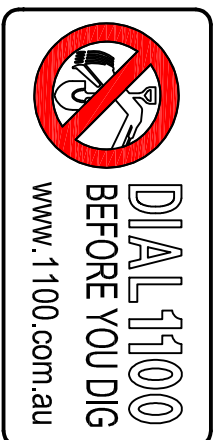
REF: 24070-C01	SHEET 2 OF 5 SHEETS
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CONTRACTOR'S OBLIGATION: THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES PRIOR TO COMMENCING ANY WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES PRIOR TO COMMENCING ANY WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES PRIOR TO COMMENCING ANY WORK.

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- LEGEND**
- STORMWATER PIT TO SPEC.
 - DOWN PIPE
 - SURFACE FLOW DIRECTION
 - EXISTING LEVEL
 - PROPOSED LEVEL
 - PROPOSED STORMWATER LINE
 - SUBSOIL DRAIN

No.	DATE	REVISION	DETAILS

cpm ENGINEERING
Civil & Structural
Consulting Engineers
ABN 65 156 273 775

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Indegree Pty Ltd

PROPOSED MIXED USE BUILDING
27 ADDISON STREET, SHELLHARBOUR

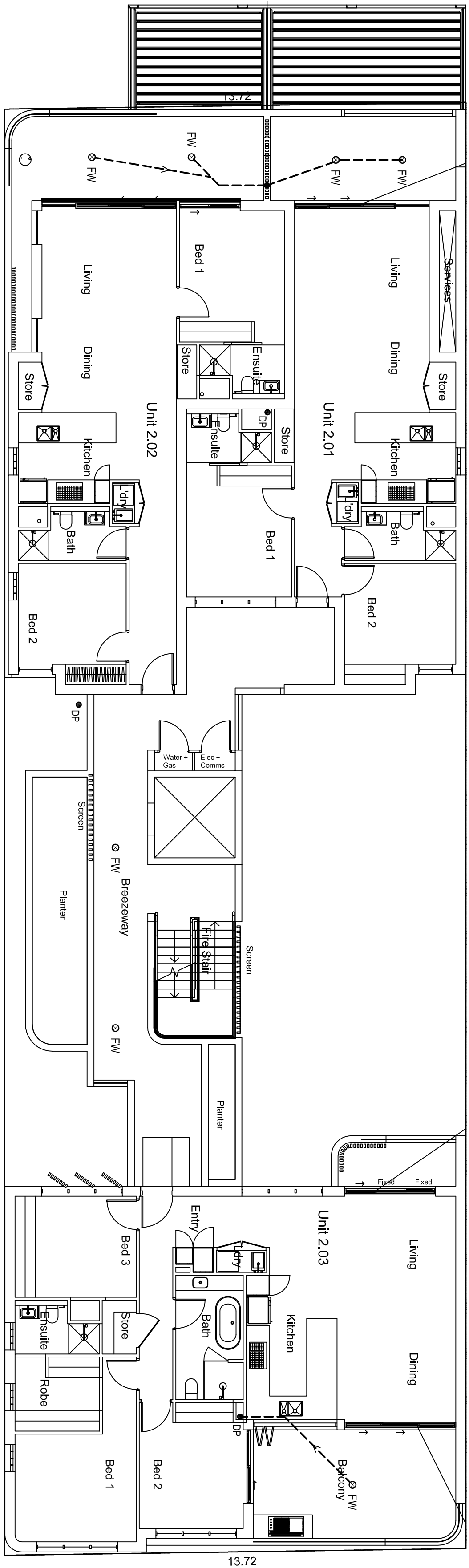
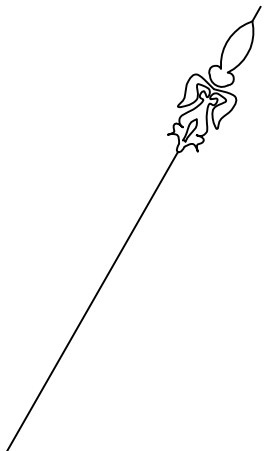
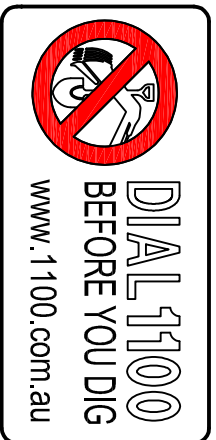
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SCALE: 1:100	AHD
LONG SECTION H:	AHD
V:	AHD
DATE OF PLAN: 10.7.24	APPROVED
CHECKED: C.P.M.	Checked: C.P.M.
DRAWN: P.S.	Drawn: P.S.
JOB REF: 24070-C01	SHEET 3 OF 5 SHEETS

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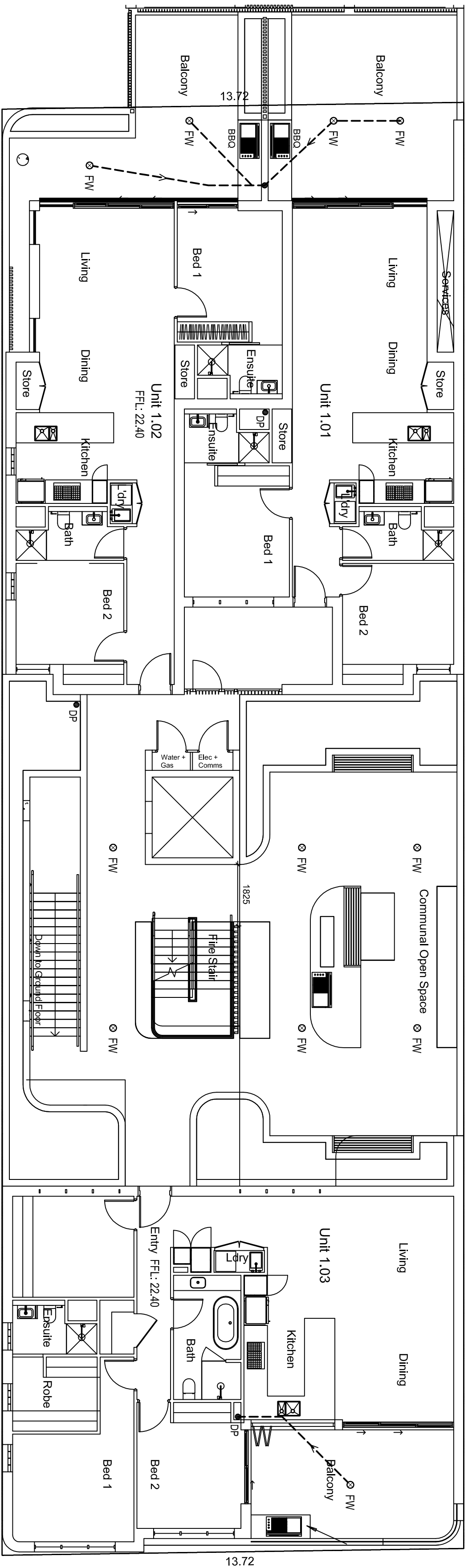
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DRAINAGE PLAN
LEVEL 2
1:100



DRAINAGE PLAN
LEVEL 1
1:100

- LEGEND**
- STORMWATER PIT TO SPEC.
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27 ADDISON STREET, SHELLHARBOUR

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