A1

STORMWATER DRAINAGE NOTES:

ALL STORMWATER DRAINAGE WORKS MUST BE CARRIED OUT BY A LICENCED PLUMBER & BE IN ACCORDANCE WITH AS/NZS 3500.3:2018 "STORMWATER DRAINAGE", AS/NZS 3500.3.2:1998 "STORMWATER DRAINAGE-ACCEPTABLE SOLUTIONS" AND THE NATIONAL CONSTRUCTION CODE OF AUSTRALIA.

ANY VARIATIONS TO THE NOMINATED LEVELS SHALL BE REFERRED TO ENGINEER IMMEDIATELY.

ANY VARIATIONS TO SPECIFIED PRODUCTS OR DETAILS SHALL BE REFERRED TO THE ENGINEER FOR APPROVAL.

BOX COLORBOND OR ZINCALUME STEEL GUTTERS SHALL BE A MINIMUM OF 450 WIDE X 150 DEEP WITH 1:200 FALL ON BASE OF GUTTER UNO.

EAVES GUTTERS SHALL BE COLORBOND OR ZINCALUME STEEL AND HAVE A MINIMUM EFFECTIVE CROSS-SECTIONAL AREA (A$_e$) OF 8,200mm² UNO. MINIMUM EFFECTIVE EAVES GUTTER SLOPE = 1:500.

ALL DRAINAGE LINES SHALL BE Ø100 SEWER GRADE UPVC PIPES UNO.

ALL DRAINAGE LINES SHALL BE LAID Ø 1% FALL MIN, UNO.

FIRST FLUSH RAINWATER DEVICES TO BE FITTED TO DRAINAGE LINES TO BUILDER'S DETAIL.

SUBSOIL DRAINAGE SHALL BE PROVIDED TO ALL RETAINING WALLS & EMBANKMENTS. SUBSOIL DRAINAGE LINES MUST BE KEPT SEPARATE FROM ALL OTHER DRAINAGE SYSTEMS (SUCH AS ROOF OR SURFACE DRAINAGE SYSTEMS), AND MUST DISCHARGE INDEPENDENTLY AT THE POINT OF DISCHARGE. CONTACT THIS OFFICE IF THERE ARE ANY ISSUES, OR IF FURTHER ADVICE IS REQUIRED.

SYMBOLS & ABBREVIATIONS:

DP = Ø100 SEWER GRADE UPVC DOWNPIPE.
FO = Ø150 FLOOR OUTLET
GSIP = GRATED SURFACE INLET PIT (NO LINTEL)
ØXXX (C) = ØXXX CHARGED PIPE (E.G. Ø150 (C) = Ø150 CHARGED PIPE)
IP = Ø100 INSPECTION POINT
SP = RAINWATER DOWNPIPE SPREADER
EX DP = EXISTING DOWNPIPE
RH & SP = RAINHEAD AND DOWNPIPE SPREADER
RH & DP = RAINHEAD AND DOWNPIPE
BG = BOX GUTTER
SX = BOX GUTTER SUMP 'X' OUTLET
TOW = TOW OF WALL RL
GSIP = GRATED SURFACE INLET PIT
NGL = NATURAL GROUND LEVEL
SL = SURFACE LEVEL (ALSO DRAIN GRATE / LID LEVEL)
IL = INVERT LEVEL
U/S IL = UPSTREAM INVERT LEVEL
D/S IL = DOWNSTREAM INVERT LEVEL
XXXX = PROPOSED FINISHED SURFACE LEVEL

R16.5m² = CATCHMENT AREA (WHERE R=ROOF, P=PAVED, L=LANDSCAPED, C=COMBINED SURFACE)

FALL = PROPOSED SURFACE FALL DIRECTION

(XXX) = HYDRAULIC GRADE LINE (HGL) POINT MARKER

GENERAL DRAINAGE LAYOUT PLAN
(SCALE 1:100)

-2.5   2.5   5.0   7.5
METRES

PIPE NOTATION

EXISTING DRAINAGE PIPE
PROPOSED DRAINAGE PIPE

NOTE:
FOR TREES TO BE REMOVED, RETAINED OR NEWLY PLANTED, REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS

EXTREME CARE SHALL BE TAKEN WHEN DOING WORK NEAR EXISTING PIT/STRUCTURES AND UNDERGROUND SERVICES.

LOCATION & DEPTH OF ALL UNDERGROUND CABLES & SERVICES TO BE CONFIRMED PRIOR TO CONSTRUCTION. CONTACT "DIAL BEFORE YOU DIG" ON 1100

www.dialbeforeyoudig.com.au
DIAL 1100 BEFORE YOU DIG

GENERAL NOTES:

1. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S SUB DIVISION, STORMWATER, DETENTION & SEDIMENT CODE
2. THE CONTRACTOR SHALL LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE OR ADJUST IF NECESSARY.
3. THE CONTRACTOR SHALL NOT ENTER UPON NOR DO ANY WORK WITHIN ADJOINING LANDS WITHOUT THE PERMISSION OF THE SUPERINTENDENT.
4. ALL NEW WORKS SHALL MAKE SMOOTH CONNECTION TO EXISTING CONDITIONS.
5. ALL IMPORTED FILL SHALL BE APPROVED BY THE COUNCIL. THE FILL SHALL BE PLACED IN NOT MORE THAN 300mm LAYERS AND SHALL BE COMPACTED TO AT LEAST 98% STANDARD COMPACTION TO COUNCIL'S SPECIFICATION.
6. PROVIDE VEHICULAR CROSSING TO COUNCIL'S SPECIFICATION IN KERB WHERE SHOWN (IF APPLICABLE).
7. THE CONTRACTOR SHALL MAINTAIN SERVICES AND ALL WEATHER ACCESS AT ALL TIMES TO ADJOINING PROPERTIES.
8. ALL IMPORTED FILL TO BE USED TO SUPPORT GROUND SLABS SHALL BE COMPACTED TO A MINIMUM LEVEL OF COMPACTION OF 98% OF MAXIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +- 2% OF OPTIMUM (AS1289.5.1.1)
9. STEP IRONS AT 300mm CENTRES & TO COUNCIL'S SPECIFICATIONS SHALL BE PROVIDED WHERE PITS ARE DEEPER THAN 1000mm
10. ALL DOWNPIPES ARE SHOWN DIAGRAMATICALLY POSITION OF DOWNPIPES SHALL BE CONFIRMED ON SITE
11. EXISTING LEVELS AND SERVICE DEPTH AND LOCATION TO BE CHECKED PRIOR TO CONSTRUCTION.
12. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH OTHER CONSULTANTS DOCUMENTATION WHICH INCLUDE BUT IS NOT LIMITED TO ARCHITECTURAL AND SURVEY DRAWINGS
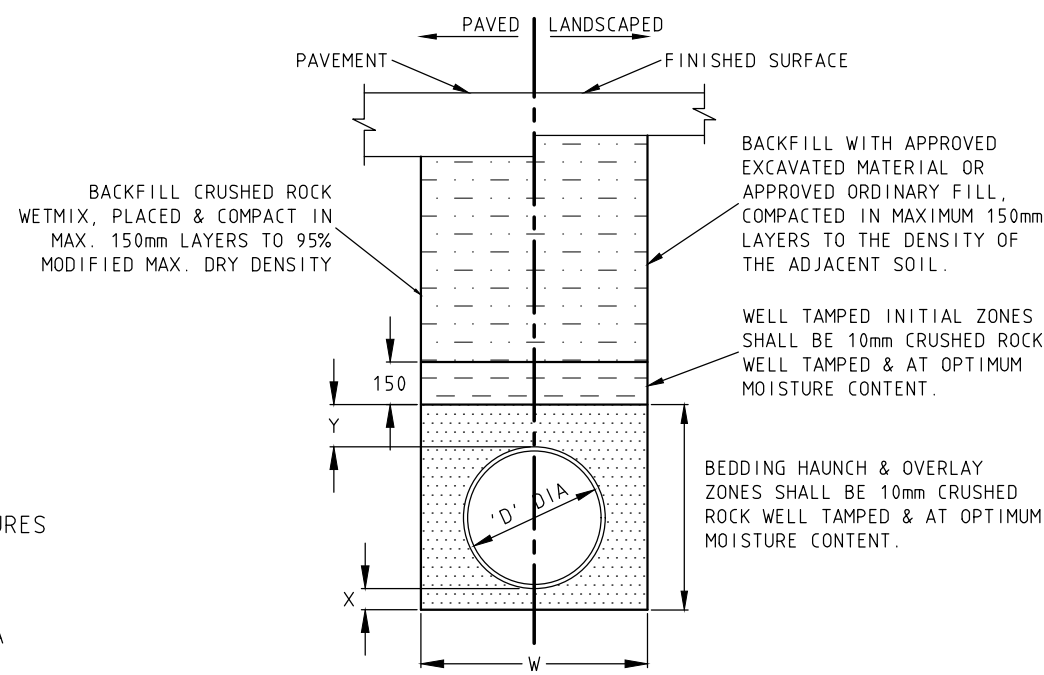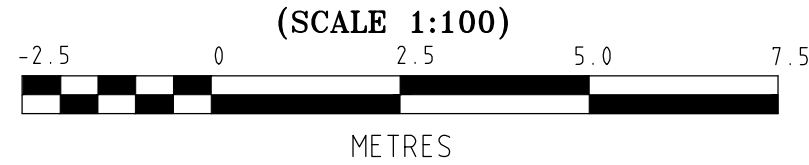
SITE SPECIFIC NOTES:

1. THE EXISTING DRAINAGE PIPES SHOWN ON THIS PLAN ARE INDICATIVE AND ARE TO BE CONFIRMED ON SITE.
2. THE EXISTING DRAINAGE SYSTEM INCLUDING (BUT NOT LIMITED TO) PITS, PIPES, GRATED TRENCH DRAINS, DOWNPIPES ETC ARE TO ALL BE ASSESSED BY A LICENCED PLUMBER AND REPLACED WITH NEW IF FOUND TO BE IN POOR WORKING CONDITION.
3. ALL ROOF AREAS MUST DRAIN TO THE ON SITE DETENTION (OSD) SYSTEM. ANY DOWNPIPES THAT ARE NOT CONNECTED TO THE EXISTING RAINWATER TANK, MUST BE ROUTED TO THE PROPOSED "OSD 1" SYSTEM PRIOR TO DISCHARGING VIA THE LEVEL SPREADER
4. PRIOR TO THE COMMENCEMENT OF ANY WORKS, BUILDINGS / RETAINING WALLS / FOOTINGS / STRUCTURES ETC NEAR OR ADJACENT TO THE PROPOSED OSD SYSTEMS (BOTH "OSD 1" AND "OSD 2") ARE TO BE ASSESSED (BY OTHERS) FOR THEIR ADEQUACY TO ALLOW FOR THE INSTALLATION OF THE PROPOSED OSD SYSTEMS. IF THERE ARE ANY CONCERNS, NOTIFY THIS OFFICE

SEDIMENT & EROSION CONTROL

1. THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES TO THE COUNCIL'S SPECIFICATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND DURING CONSTRUCTION.
2. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED IN A SATISFACTORY WORKING ORDER DURING THE CONSTRUCTION PERIOD. INSPECTIONS OF THESE DEVICES SHALL BE CARRIED OUT AFTER EACH STORM. REPAIRS AND/OR DE-CLOGGING SHALL BE CARRIED OUT TO ENSURE PROPER OPERATION OF THE DEVICE.
3. PROVIDE TEMPORARY CONSTRUCTION EXIT TO SHAKE OFF SITE MATERIALS FROM EXITING VEHICLES AND SHALL CONSIST OF A PAD OF COURSE CRUSHED ROCK (75mm TO 150mm RANGE) HAVING A MINIMUM DEPTH OF 200mm, A MINIMUM LENGTH OF 25m AND 3.5m WIDE OR "CATTLE GRID" SYSTEM.
4. THE GULLY PITS SHALL BE PROTECTED IN ACCORDANCE WITH COUNCIL'S REQUIREMENTS
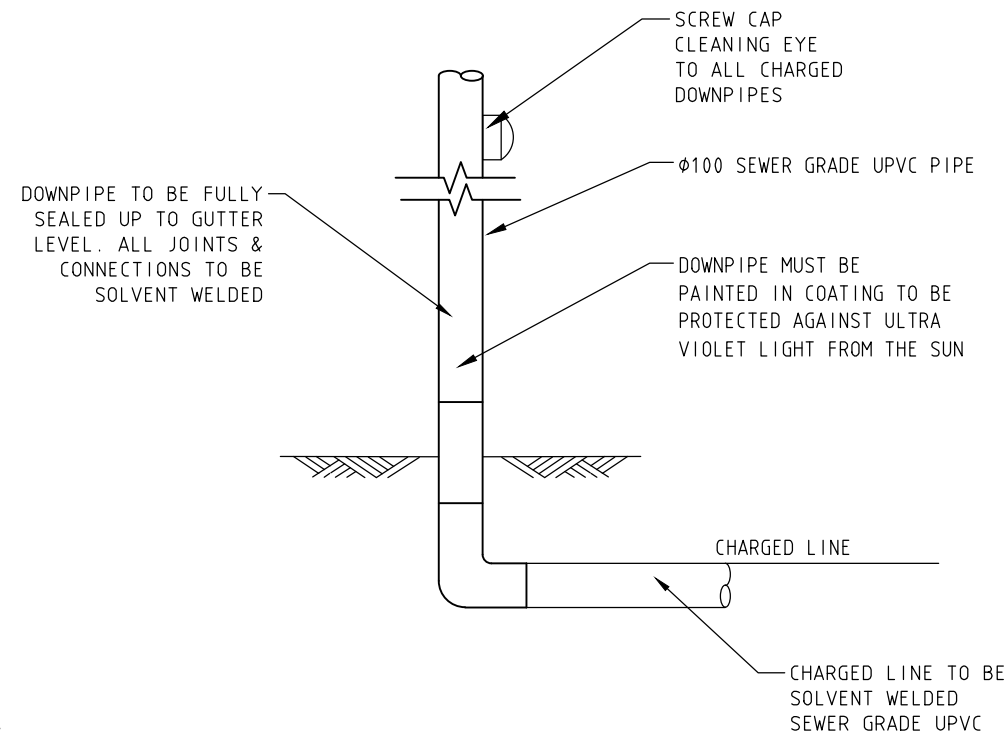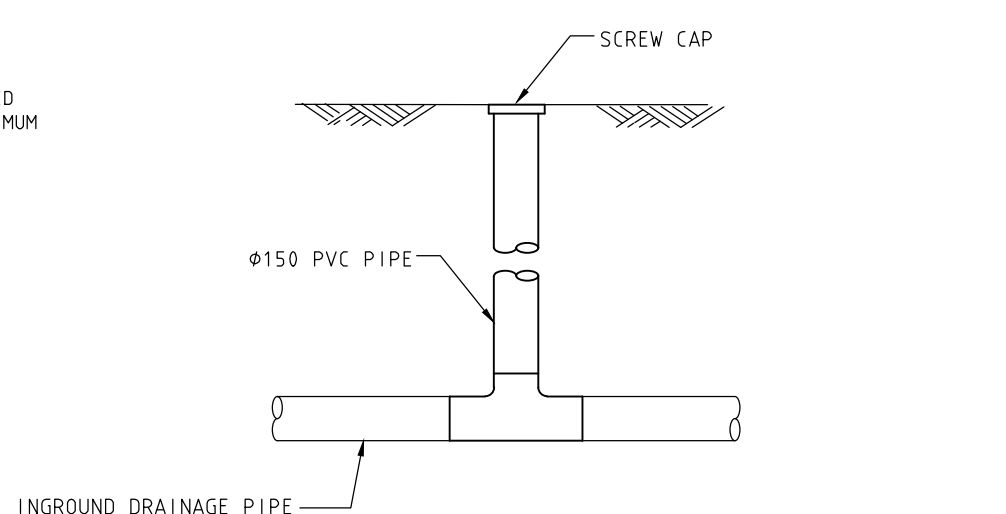5. THE GRATED SURFACE PITS SHALL BE PROTECTED IN ACCORDANCE WITH COUNCIL'S REQUIREMENTS

TYPICAL DETAIL - DOWNPIPE TO CHARGED LINE
N.T.S

SCREW CAP CLEANING EYE TO ALL CHARGED DOWNPIPES

Ø100 SEWER GRADE UPVC PIPE

DOWNPIPE TO BE FULLY SEALED UP TO GUTTER LEVEL, ALL JOINTS & CONNECTIONS TO BE SOLVENT WELDED

DOWNPIPE MUST BE PAINTED IN COATING TO BE PROTECTED AGAINST ULTRA VIOLET LIGHT FROM THE SUN

CHARGED LINE

CHARGED LINE TO BE SOLVENT WELDED SEWER GRADE UPVC

TYPICAL DETAIL - UPVC PIPE LAYING
N.T.S

PAVEMENT | PAVED | LANDSCAPED | FINISHED SURFACE

BACKFILL CRUSHED ROCK WETMIX, PLACED & COMPACT IN MAX. 150mm LAYERS TO 95% MODIFIED MAX. DRY DENSITY

BACKFILL WITH APPROVED EXCAVATED MATERIAL OR APPROVED ORDINARY FILL, COMPACTED IN MAXIMUM 150mm LAYERS TO THE DENSITY OF THE ADJACENT SOIL.

WELL TAMPED INITIAL ZONES SHALL BE 10mm CRUSHED ROCK WELL TAMPED & AT OPTIMUM MOISTURE CONTENT

BEDDING HAUNCH & OVERLAY ZONES SHALL BE 10mm CRUSHED ROCK WELL TAMPED & AT OPTIMUM MOISTURE CONTENT.

NOTE:
1. REFER TO PIPE LAYING SPECIFICATIONS FOR DETAILS.

PIPE DIA 'D'	W	X MIN	Y
100-150	300	75	75
225-300	600	75	75

TYPICAL DETAIL - INSPECTION / CLEANING EYE
N.T.S

SCREW CAP

Ø150 PVC PIPE

INGROUND DRAINAGE PIPE

NOTE:
CLEANING EYE TO BE PROVIDED AT START OF CHARGED LINES AND AT CRITICAL JUNCTIONS TO BUILDERS DETAIL

GEOFABRIC LINED "SILT" FENCE

DISTURBED AREA
BUFFER ZONE GRASSED AREA
DIRECTION OF FLOW
GEOTEXTILE EMBEDDED 200mm INTO GROUND
500 MIN
200
500 - 700 INTO GROUND
500 - 700 POSTS DRIVEN
POSTS DRIVEN

Plan annotations

EXISTING GRATED TRENCH DRAIN. GRATED TRENCH DRAIN TO BE CONNECTED TO OSD 2 PRIOR TO DISCHARGING THROUGH THE LEVEL SPREADER

NOTE: EXISTING DOWNPIPES CONNECTED TO THE EXISTING RAINWATER TANK ARE NOT SHOWN ON THESE PLANS

EXISTING DRAINAGE LINE

2xØ100 UPPER AND LOWER LINKING PIPES BETWEEN TANKS

TERMINATE EXISTING GRATED TRENCH DRAIN PIPE, PROVIDE CLEANING EYE AND RE-ROUTE TO 900x600 GSIP (OSD 2). LOCATION SHOWN IS APPROXIMATE. EXACT LOCATION TBD ON SITE

Ø100 UPVC PIPE Ø 1% MIN.

EXISTING RAINWATER TANK RECEIVING RUNOFF FROM THE FRONT PORTION OF THE DWELLING ROOF AND CARPORT ROOF

OVERFLOW FROM EXISTING TANK TO BE DIRECTED TO NEW OSD 1 TANKS. OVERFLOW LEVEL FROM EXISTING TANK TO BE 700mm MIN. ABOVE THE TOP OF OSD 1 LEVEL

OSD 1:
PROPOSED 2 x CUSTOM "KINGSPAN" 3618L WATER TANKS TO FUNCTION AS OSD. BOTH TANKS MUST BE FOUNDED ON EQUAL LEVEL HAVING THE SAME LEVELS FOR THE TOP AND BOTTOM OF EACH TANK. TOP OF TANKS MUST BE 700mm MIN. BELOW THE INVERT OF ALL INCOMING GUTTERS. TOP OF TANKS MUST BE 700mm MIN. BELOW THE TOP OF THE EXISTING RAINWATER TANK. REFER TO DETAILS AND CALCULATIONS FOR MORE INFORMATION

OSD 1   OSD 1

Ø100 (C) UPVC PIPE

Ø150 UPVC PIPE Ø 1% MIN.

Ø100 HIGH LEVEL OVERFLOW AND Ø100 LOWER OSD CONTROL OUTLET PIPES. COMBINE & UPSIZE TO SINGLE Ø150 INGROUND DRAINAGE PIPE. REFER TO OSD DETAIL FOR MORE INFORMATION

PROVIDE CLEANING EYE AT JUNCTION

EX DP

EX DP

OSD 2:
PROPOSED 900x600 GSIP TO FUNCTION AS OSD
SL = 63.40
SL = 63.40
IL = 62.40
REFER TO DETAILS AND CALCULATIONS

BACKYARD TO UNDERGO MINOR REGRADING TO CREATE A SLOPE GENERALLY PERPENDICULAR TO THE DIRECTION OF OUTFLOWS FROM THE LEVEL SPREADER. REGRADING TO PREVENT ANY PONDING ON SITE, OR CONCENTRATION OF FLOWS FROM THE LEVEL SPREADER. DETAILS TO BE INTEGRATED IN ARCHITECTURAL DRAWINGS AT CC STAGE

PROPOSED SWIMMING POOL. SWIMMING POOL, BACKWASH, COPING AND PAVEMENT SURROUND TO BE CONNECTED TO SEWER IN ACCORDANCE WITH SYDNEY WATER GUIDELINES AND REQUIREMENTS. DETAILS TO BE PROVIDED BY OTHERS

EXISTING SEWER SHOWN INDICATIVELY IN ORANGE. ALL WORKS NEAR SEWER TO BE CARRIED OUT IN ACCORDANCE WITH ASSET OWNERS REQUIREMENTS. REFER TO SEWER PEG OUT FOR MORE INFORMATION

PROPOSED 2000(L) x 200(W) x 300(D) GRATED TRENCH DRAIN TO FUNCTION AS A LEVEL SPREADER. LEVEL SPREADER TO BE POSITIONED GENERALLY AS SHOWN TO ACHIEVE THE FOLLOWING:
• BE SETBACK 0.3m FROM THE OUTER EDGE OF THE SWIMMING POOL PAVEMENT SURROUND
• BE SETBACK 2.51m MIN. FROM THE SOUTHERN BOUNDARY
• BE SETBACK 3m MIN. FROM ALL OTHER BOUNDARIES AND BUILDINGS
• BE SETBACK FROM THE EXISTING SEWER IN ACCORDANCE WITH THE ASSET OWNERS REQUIREMENTS
• GRATE RL TO BE CONSTANT ALONG THE ENTIRE LENGTH OF THE LEVEL SPREADER TO ACHIEVE UNIFORM SHEET FLOW
• GRATE RL ~ 62.25
REFER TO DETAIL

TOW RL's TO BE FLUSH WITH ADJACENT FINISHED GROUND LEVEL TO ALLOW UNIMPEDED FLOW OF RUNOFF

6.02m FROM LOWEST BOUNDARY POINT

Title block

CLIENT: CLIFFORD LEESON

PROJECT: PROPOSED ALTERATIONS AND ADDITIONS, AND SWIMMING POOL AT 52 SEAVIEW STREET, BALGOWLAH NSW

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DRAWING TITLE: GENERAL DRAINAGE LAYOUT PLAN, NOTES & DETAILS

DRAWN BY: TM   ENGINEER: TM
DATE: 31/08/2023
SCALE: AS SHOWN ON A1
JOB NO: 230626
SHEET No: C01

ISSUE	DATE	REVISIONS:
B	07/03/2024	UPDATED TO COUNCIL COMMENTS - REISSUED FOR DA
A	31/08/2023	ISSUE FOR DEVELOPMENT APPLICATION

OSD - HYDROLOGY CALCULATIONS

DEVELOPMENT AREA = 363.4m²

PRE DEVELOPMENT:

IMPERVIOUS AREA

EXISTING ROOF = 0.0m²
EXISTING PAVEMENT = 0.0m²
TOTAL IMPERVIOUS AREA = 0.0m²
FRACTION IMPERVIOUS = 0.0% (EXISTING SITE MODELLED AS "STATE OF NATURE")

POST - DEVELOPMENT	IN OSD 1:	IN OSD 2:	BYPASS	BYPASS EXCLUDING POOL
IMPERVIOUS AREA				
PROPOSED ROOF = 196.9m²	= 186.9m²	= 9.9m²	= 0.0m²	= 0.0m²
PROPOSED PAVE = 91.1m²	= 0.0m²	= 27.7m²	= 51.3m²	= 16.1m²
TOTAL IMP. AREA = 288.0m²	= 186.9m² (100%)	= 37.6m² (53.9%)	= 51.3m² (48.1%)	= 16.1m² (22.5%)
FRACTION IMP. = 79.2%				
LANDSCAPE AREA = 75.4m²	= 0.0m² (0.0%)	= 32.2m² (46.1%)	= 55.4m² (51.9%)	= 55.4m² (42.7%)
TOTAL AREA = 363.4m²	= 186.9m²	= 69.8m²	= 106.7m²	= 71.5m²

OSD STRATEGY:

OSD HAS BEEN MODELLED TO LIMIT POST DEVELOPMENT SITE FLOWS TO MATCH STATE OF NATURE FLOWS FOR THE ENTIRE SITE FOR THE 1%, 5% AND 20% AEP DESIGN STORM EVENTS. REFER TO DRAINS MODEL OUTPUT SUMMARY TABLE
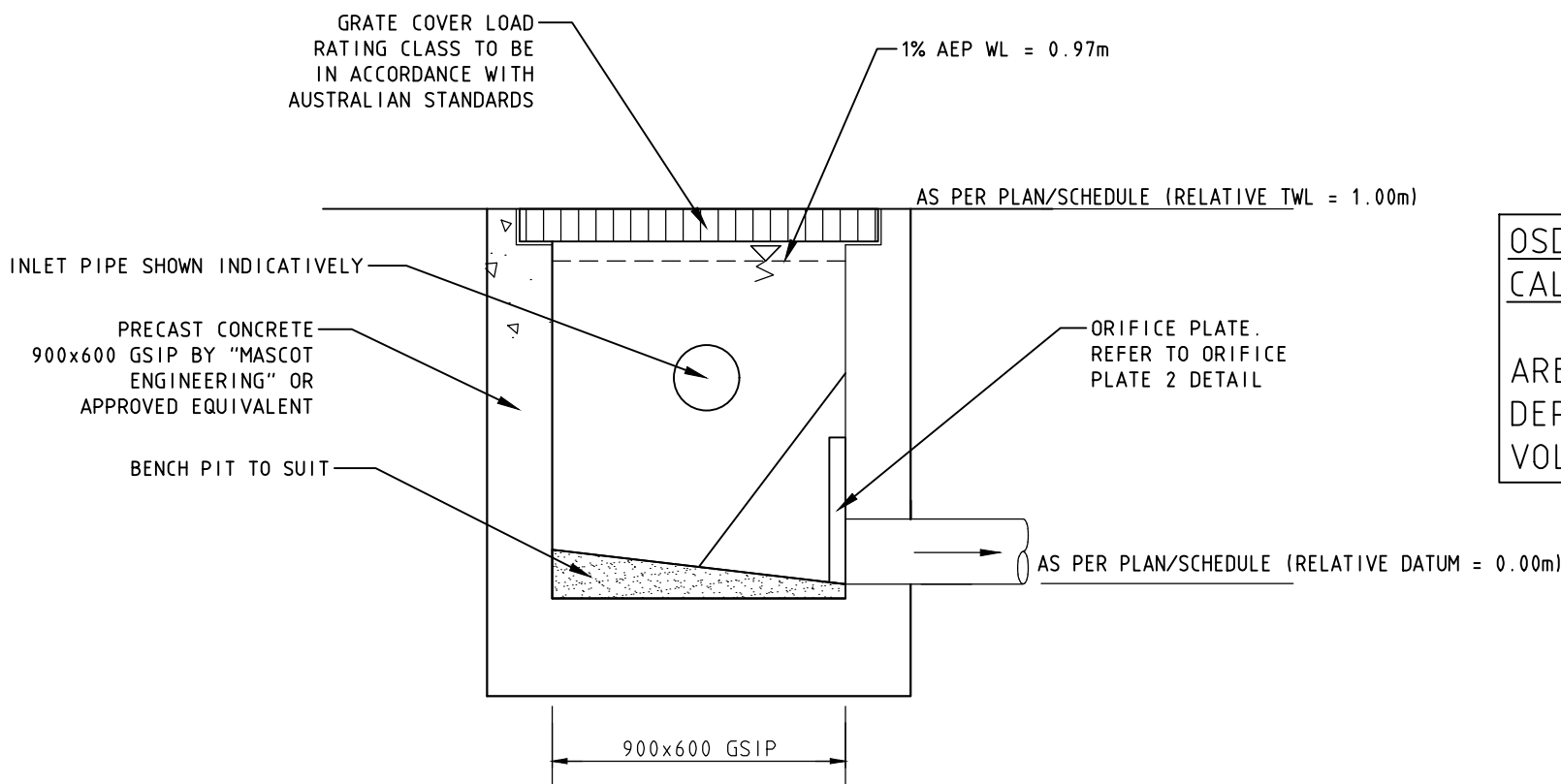
NOTE:

GIVEN THAT THE SWIMMING POOL WILL BE CONNECTED TO THE SEWER, AN ADDITIONAL SET OF CALCULATIONS HAVE BEEN MODELLED TO EXCLUDE THE SWIMMING POOL AREA FOR THE POST DEVELOPMENT SCENARIO
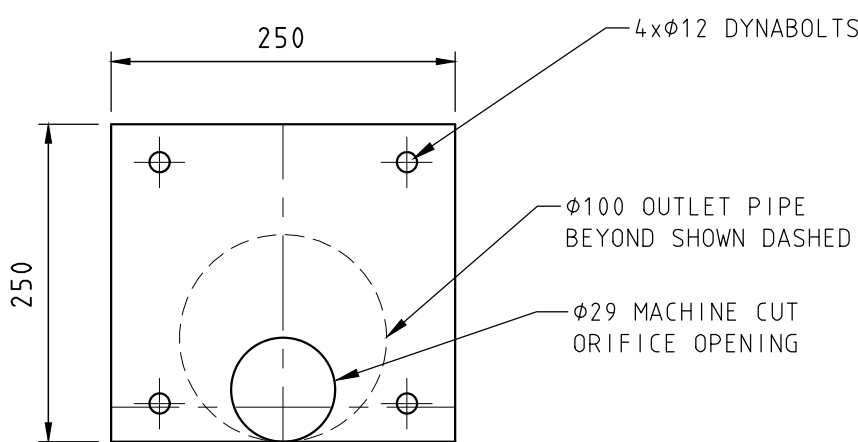
DRAINS OUTPUT SUMMARY - ILSAX METHOD

DRAINS MODEL OUTPUT SUMMARY

AEP	PRE DEV TOTAL SITE DISCHARGE (L/S)	OSD 1 ORIFICE DISCHARGE (L/S)	OSD 1 OVERFLOW (L/S)	OSD 1 VOLUME REQUIRED (M3)	OSD 2 ORIFICE DISCHARGE (L/S)	OSD 2 OVERFLOW (L/S)	OSD 2 VOLUME REQUIRED (M3)	TOTAL BYPASS (L/s)	TOTAL BYPASS EXCLUDING POOL (L/s)	POST DEV TOTAL SITE DISCHARGE (L/s)	POST DEV TOTAL SITE DISCHARGE EXCLUDING POOL (L/s)
20%	8	2	0	3.2	1	0	0.2	3	2	6	5
5%	14	3	0	4.7	1	0	0.3	5	3	8	6
1%	19	4	0	6.6	2	0	0.5	6	4	10	8

TYPICAL PIT DETAIL
N.T.S

GRATE COVER LOAD RATING CLASS TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARDS

1% AEP WL = 0.97m

AS PER PLAN/SCHEDULE (RELATIVE TWL = 1.00m)

INLET PIPE SHOWN INDICATIVELY

PRECAST CONCRETE 900x600 GSIP BY "MASCOT ENGINEERING" OR APPROVED EQUIVALENT

ORIFICE PLATE. REFER TO ORIFICE PLATE 2 DETAIL
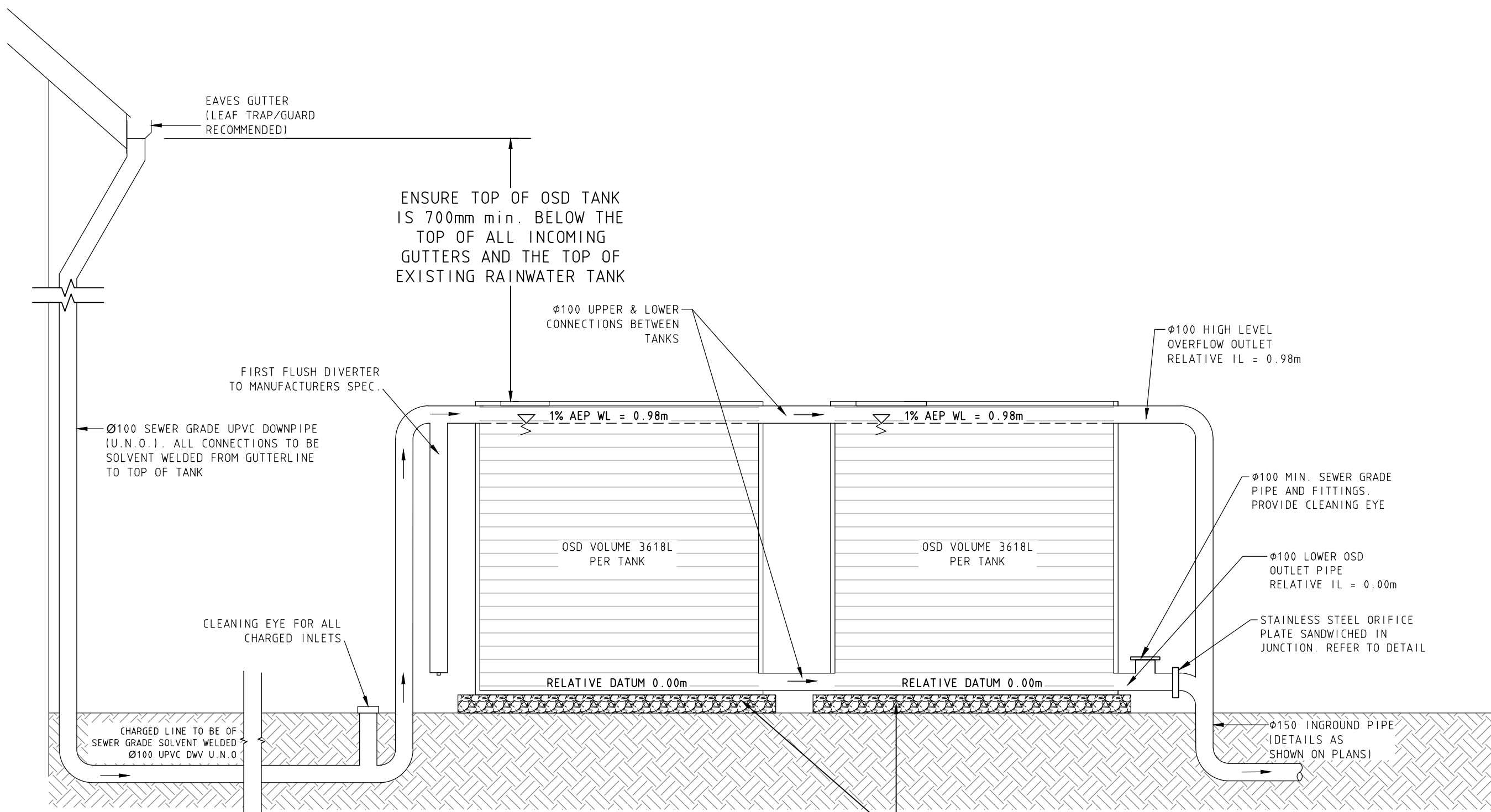
BENCH PIT TO SUIT

AS PER PLAN/SCHEDULE (RELATIVE DATUM = 0.00m)

900x600 GSIP

OSD 2 VOLUME CALCULATIONS:

AREA = 0.9x0.6 = 0.54m²
DEPTH = 1m
VOLUME PROVIDED = 0.54m³

ORIFICE PLATE 2 DETAIL
N.T.S

250 / 250
4xΦ12 DYNABOLTS
Φ100 OUTLET PIPE BEYOND SHOWN DASHED
Φ29 MACHINE CUT ORIFICE OPENING

TYPICAL DETAIL - OSD 1
NTS

EAVES GUTTER (LEAF TRAP/GUARD RECOMMENDED)

ENSURE TOP OF OSD TANK IS 700mm min. BELOW THE TOP OF ALL INCOMING GUTTERS AND THE TOP OF EXISTING RAINWATER TANK

Φ100 UPPER & LOWER CONNECTIONS BETWEEN TANKS

Φ100 HIGH LEVEL OVERFLOW OUTLET RELATIVE IL = 0.98m

FIRST FLUSH DIVERTER TO MANUFACTURERS SPEC

1% AEP WL = 0.98m

Φ100 MIN. SEWER GRADE PIPE AND FITTINGS. PROVIDE CLEANING EYE

Φ100 SEWER GRADE UPVC DOWNPIPE (U.N.O.). ALL CONNECTIONS TO BE SOLVENT WELDED FROM GUTTERLINE TO TOP OF TANK

OSD VOLUME 3618L PER TANK

OSD VOLUME 3618L PER TANK

Φ100 LOWER OSD OUTLET PIPE RELATIVE IL = 0.00m

CLEANING EYE FOR ALL CHARGED INLETS

STAINLESS STEEL ORIFICE PLATE SANDWICHED IN JUNCTION. REFER TO DETAIL

RELATIVE DATUM 0.00m

RELATIVE DATUM 0.00m

CHARGED LINE TO BE OF SEWER GRADE SOLVENT WELDED Φ100 UPVC DWV U.N.O.

Φ150 INGROUND PIPE (DETAILS AS SHOWN ON PLANS)

BOTH TANKS MUST BE FOUNDED ON EQUAL LEVEL TO ALLOW PROPER HYDRAULIC FUNCTION. TANK SUPPORT STRUCTURE TO MANUFACTURERS OR STRUCTURAL ENGINEERS SPECIFICATIONS
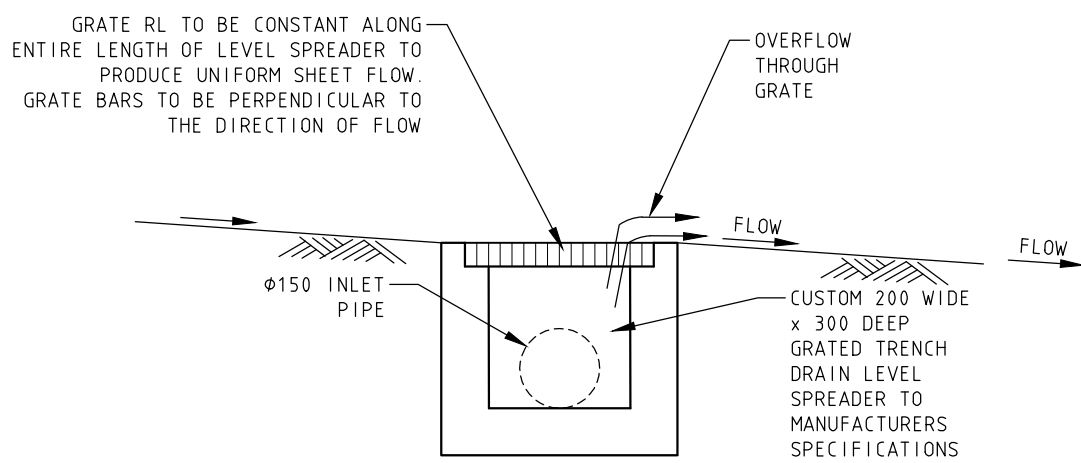
NOTE:
1. PROVIDE 2 OF CUSTOM KINGSPAN 3618 LITRE MODLINE TANKS (TOTAL STORAGE OF 7236L), WITH DIMENSIONS AS FOLLOWS: WIDTH = 900mm, LENGTH = 3500mm, HEIGHT = 1180mm.
2. ENSURE TOP OF OSD TANK IS 700mm BELOW THE INVERT OF ALL INCOMING GUTTERS, AND 700mm MIN. BELOW THE TOP OF THE EXISTING RAINWATER TANK
3. TANK SIZES MAY BE INCREASED TO SUIT SITE CONDITIONS. IF HEIGHT OF TANKS VARY, ENGINEER MUST BE NOTIFIED TO RECALCULATE ORIFICE PLATE OPENING SIZE
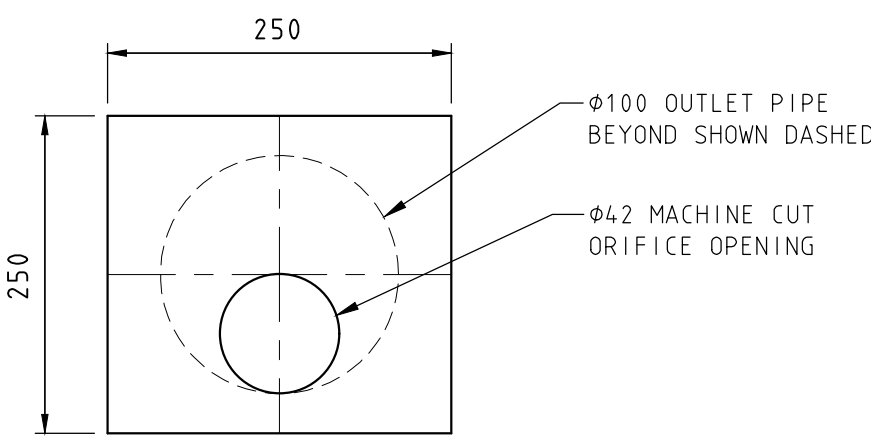
ORIFICE PLATE 1 DETAIL
N.T.S

250 / 250
Φ100 OUTLET PIPE BEYOND SHOWN DASHED
Φ42 MACHINE CUT ORIFICE OPENING

TYPICAL DETAIL - LEVEL SPREADER
NTS

GRATE RL TO BE CONSTANT ALONG ENTIRE LENGTH OF LEVEL SPREADER TO PRODUCE UNIFORM SHEET FLOW. GRATE BARS TO BE PERPENDICULAR TO THE DIRECTION OF FLOW

OVERFLOW THROUGH GRATE

FLOW

FLOW

Φ150 INLET PIPE

CUSTOM 200 WIDE x 300 DEEP GRATED TRENCH DRAIN. LEVEL SPREADER TO MANUFACTURERS SPECIFICATIONS

NB. LOCALLY REGRADE SURROUNDING AREA TO TIE IN NEATLY WITH ADJACENT SURFACES. ENSURE RUNOFF FLOWS UNIMPEDED & NO PONDING RESULTS FROM REGRADING. NOTIFY ENGINEER IF THERE ARE ANY INCONSISTENCIES

CLIENT: CLIFFORD LEESON

PROJECT: PROPOSED ALTERATIONS AND ADDITIONS, AND SWIMMING POOL AT 52 SEAVIEW STREET, BALGOWLAH NSW

APPROVED:

ADAM GILLETT
B.E (Hons) M.I.E. AUST CPEng NER

DRAWING TITLE: OSD & LEVEL SPREADER DETAILS AND CALCULATIONS

ISSUE	DATE	REVISIONS:
B	07/03/2024	UPDATED TO COUNCIL COMMENTS - REISSUED FOR DA
A	31/08/2023	ISSUE FOR DEVELOPMENT APPLICATION

DRAWN BY: TM   ENGINEER: TM
DATE: 31/08/2023
SCALE: AS SHOWN ON A1
JOB NO: 230626
SHEET No: C02