142 LAMBETH STREET, PANANIA
PROPOSED BOARDING HOUSE DEVELOPMENT

STORMWATER CONCEPT PLANS

LOCALITY PLAN
N.T.S

DRAWING INDEX	
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000	COVER SHEET PLAN
101	STORMWATER CONCEPT PLAN GROUND LEVEL
102	ON-SITE DETENTION DETAILS AND CALCULATION SHEET
103	SEDIMENT & EROSION CONTROL PLAN & DETAILS

NOT FOR CONSTRUCTION

Issue	Description	Date	Designed	Engineer	Checked
A	ISSUE FOR DEVELOPMENT APPLICATION	01/12/2022	KTS	EH	OC

0 1cm at full size 10cm 20cm

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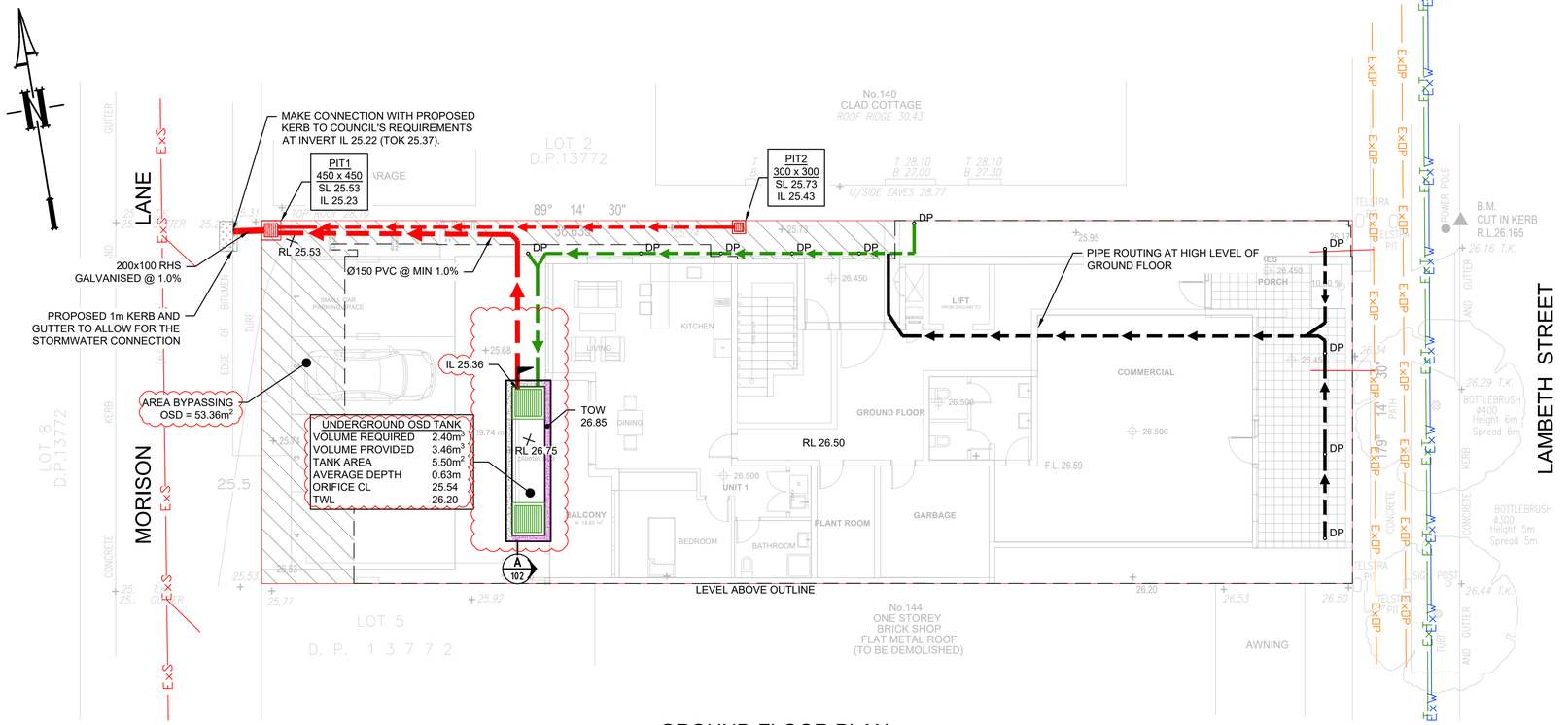
Project
142 LAMBETH STREET, PANANIA
PROPOSED BOARDING HOUSE DEVELOPMENT
STORMWATER CONCEPT PLAN
DEVELOPMENT APPLICATION

Drawing Title
COVER SHEET PLAN

Scale	Project No.	Dwg. No.	Issue
N.T.S. A1	220601	000	A

LEGEND

- PROPOSED STORMWATER DRAINAGE PIPE
- PROPOSED STORMWATER DRAINING TO OSD
- PROPOSED STORMWATER BYPASSING OSD
- Ø100 HDPE OR PVC WRAPPED IN 20mm ABLEFLEX STORMWATER DRAINAGE PIPE CAST IN SLAB
- 65 — Ø65 HDPE OR PVC WRAPPED IN 20mm ABLEFLEX STORMWATER DRAINAGE PIPE CAST IN SLAB
- 50 — Ø50mm HDPE OR PVC WRAPPED IN 20mm ABLEFLEX CAST IN SLAB
- RWT — PROPOSED STORMWATER PIPE TO RAINWATER TANK
- SS — Ø100mm SUBSOIL DRAINAGE TO BE WRAPPED IN GEOTEXTILE BIDIMA34
- RISER PIPE
- CE — Ø300 CLEANING EYE
- RWT — RAINWATER TANK
- DP — DOWNPIPE Ø100
- VD — VERTICAL DROP Ø100
- PG — PLANTER GRATE Ø150
- FG — FLOOR GRATE Ø150
- FG — FLOOR GRATE 200x200 (ALLOW MINIMUM 1.0% FALL TO FG)
- FW — FLOOR GRATE 300x300 (ALLOW MINIMUM 1.0% FALL TO FW)
- RWO — RAINWATER OUTLET Ø260 SPS (ALLOW MINIMUM 1.0% FALL TO RWO)
- SPB — SUSPENDED PLANTER BOX RAINWATER OUTLET
- X RL 47.00 — DESIGN SURFACE LEVEL
- NS 26.45 + — EXISTING SURFACE LEVEL
- IL 47.00 — INVERT LEVEL
- TD — AC CONDENSER TUNDISH TO MANUFACTURER'S DETAILS
- OF — Ø50mm EMERGENCY OVERFLOW SPITTERS/PIPES
- EXISTING STORMWATER
- ExW — EXISTING WATER MAIN
- ExS — EXISTING SEWER MAIN
- ExT — EXISTING TELSTRA
- ExE — EXISTING ELECTRICAL
- ExG — EXISTING GAS
- ExOP — EXISTING OPTIC FIBER



GROUND FLOOR PLAN

SCALE 1:100

GENERAL NOTES

1. ALL LINES ARE TO BE Ø90 uPVC 1.0% GRADE UNLESS NOTED OTHERWISE. CHARGED LINES TO BE SEWERGRADE & SEALED.
2. EXISTING SERVICES LOCATIONS SHOWN INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE & LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS.
3. ALL PIPES TO HAVE MIN 150mm COVER IF LOCATED WITHIN PROPERTY.
4. ALL PITS IN DRIVEWAYS TO BE 450x450 CONCRETE AND ALL PITS IN LANDSCAPED AREAS TO BE 450x450 PLASTIC.
5. PITS LESS THAN 600mm DEEP MAY BE BRICK, PRECAST OR CONCRETE.
6. ALL BALCONIES AND ROOFS TO BE DRAINED AND TO HAVE SAFETY OVERFLOWS IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
7. ALL EXTERNAL SLABS TO BE WATERPROOFED.
8. ALL GRATES TO HAVE CHILD PROOF LOCKS.
9. ALL DRAINAGE WORKS TO AVOID TREE ROOTS.
10. ALL DPs TO HAVE LEAF GUARDS.
11. ALL EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.
12. ALL WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL PRIOR TO CONSTRUCTION.
13. COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.
14. ALL WORK SHALL BE IN ACCORDANCE WITH B.C.A. AND A.S.3500.3.
15. REFER TO LANDSCAPE ARCHITECT'S DRAWINGS FOR LANDSCAPING.
16. CARE TO BE TAKEN AROUND EXISTING SEWER. STRUCTURAL ADVICE IS REQUIRED FOR SEWER PROTECTION AGAINST ADDITIONAL LOADING FROM NEW PITS, PIPES, RETAINING WALLS AND OSD BASIN WATER LEVELS.
17. ALL PIPES IN BALCONIES TO BE Ø50mm HDPE OR PVC WRAPPED IN 20mm ABLEFLEX CAST IN SLAB AT MIN 1.0% SLOPE. CONTRACTOR TO PROVIDE A BREAK / OPEN VOID IN RAIL / BALLUSTRADE FOR STORMWATER EMERGENCY OVERFLOW. ALL ENCLOSED AREAS/PLANTER BOXES TO BE FITTED WITH FLOOR WASTES & DRAINED TO OSD DOWNPIPES TO BE CHECKED BY ARCHITECT & . PLUMBER PRIOR TO CONSTRUCTION
18. THE OSD BASIN / TANK IS TO BE BUILT TO THE CORRECT LEVELS & SIZE AS PER THIS DESIGN. ANY VARIATIONS ARE TO BE DONE UNDER CONSULTATION FROM OUR OFFICE ONLY. ANY AMENDMENTS WITHOUT OUR APPROVAL WOULD RESULT IN ADDITIONAL FEES FOR REDESIGN AT OC STAGE OR IF A SOLUTION CANNOT BE FOUND, RECONSTRUCTION IS REQUIRED UNDER THE CONTRACTOR'S EXPENSES.

PIPES NOTE:
Ø65 PVC @ MIN 1.0%
Ø90 PVC @ MIN 1.0%
Ø100 PVC @ MIN 1.0%
Ø150 PVC @ MIN 1.0%
Ø225 PVC @ MIN 0.5%
Ø300 PVC @ MIN 0.4%
UNLESS NOTED OTHERWISE

NOTE
FIRE COLLARS TO BE APPROVED BY THE CONTRACTOR AND IN ACCORDANCE TO THE FIRE RATING REPORT OF THE FIRE ENGINEER.

NOTE:
ALL REDUNDANT PIPELINES WITHIN FOOTPATH AREA MUST BE REMOVED AND FOOTPATH/KERB REINSTATED.

NOTE:
ALL PIPES ARE Ø100 PVC U.N.O.

NOTE:
ALL GRATES WITHIN FOOTWAY AREAS TO BE HEEL GUARD & BIKE SAFE.

NOTE:
PITS DEEPER THAN 1.0m TO BE FITTED WITH STEP IRONS

NOTE:
REFER ARCHITECTURAL DRAWINGS FOR FINAL SET-OUT LEVELS.

NOTE:
IT IS CONTRACTOR'S RESPONSIBILITY TO ENSURE MINIMUM PONDING IS ACHIEVED OVER THE FLOOR WASTES BY GRADING CATCHMENTS' SURFACES AT MINIMUM 1.0% FALL

NOTES:
1- CONTRACTOR IS TO PROVIDE OVERFLOW OUTLETS & EMERGENCY OVERFLOW SPITTERS TO ALL TRAPPED AREAS.
2- DP/VD ARE Ø100mm PIPES U.N.O.
3- ALL TRANSFERRING PIPES ARE SUSPENDED U.N.O.
4- BALCONIES PIPES ARE Ø50mm HDPE OR PVC WRAPPED IN 20mm ABLEFLEX CAST IN SLAB AT MIN 1.0% SLOPE.

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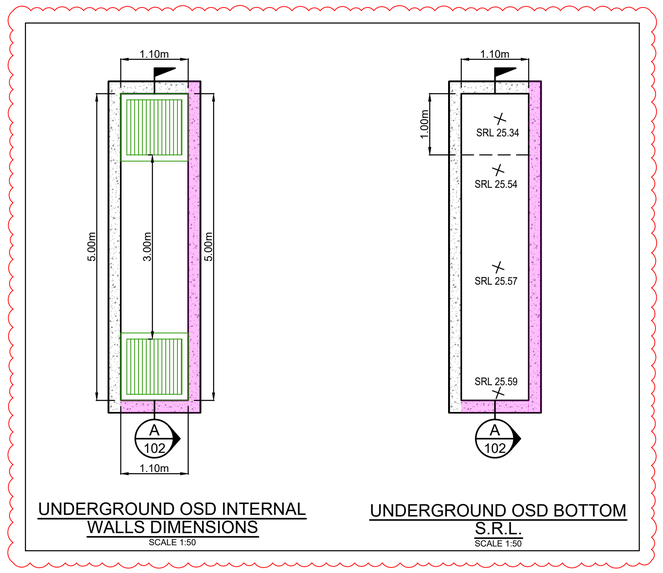
DEVELOPMENT APPLICATION

Drawing Title
STORMWATER CONCEPT PLAN GROUND LEVEL

Scale	Project No.	Dwg. No.	Issue
1:100 A1	220601	101	B



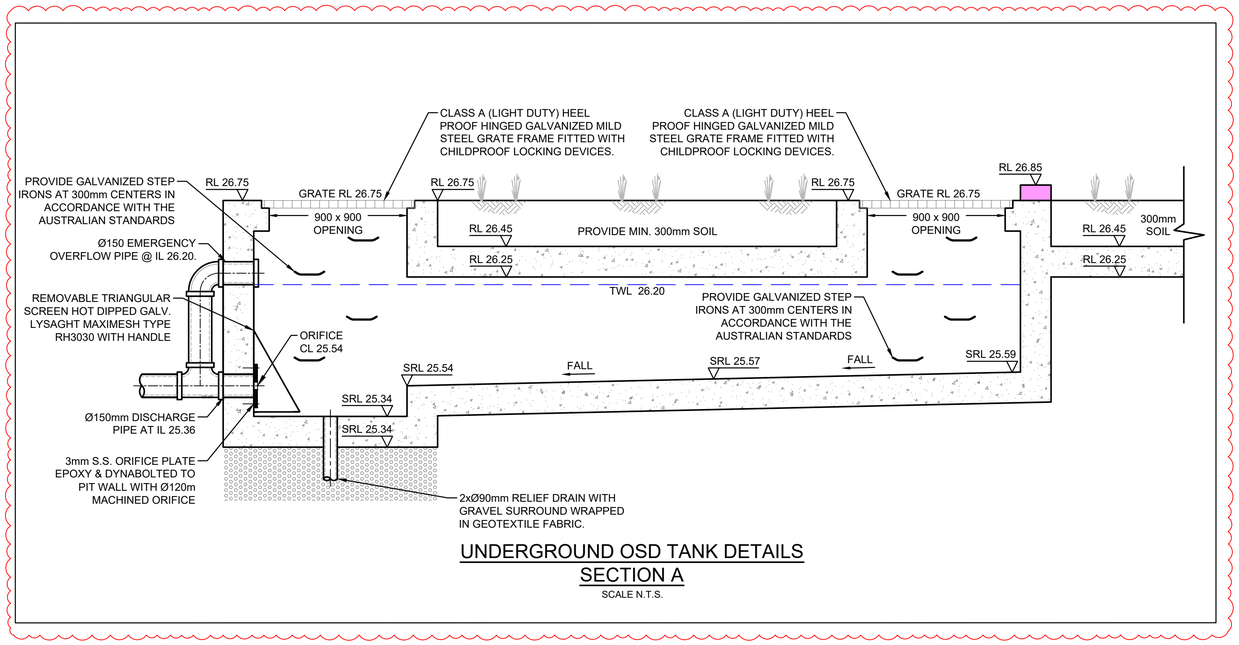
UNDERGROUND OSD INTERNAL WALLS DIMENSIONS
SCALE 1:50

UNDERGROUND OSD BOTTOM S.R.L.
SCALE 1:50

Stormwater Drainage System Maintenance Schedule

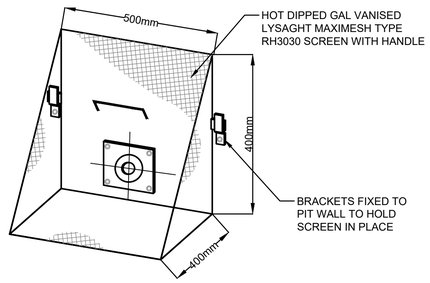
ESG220601

Maintenance Action	Frequency	Responsibility	Procedure
General			
Inspect roof drainage system of building and remove any debris/sludge	Six Monthly	Strata/Maintenance Contractor	Remove any leaves or debris and sludge from gutters of building and flush downpipes of building to remove any blockages. Pits downstream of downpipes to be cleaned of flushed debris.
Inspect pits and trench drains on site and remove debris/litter/sludge	Monthly or following Rain Period	Strata/Maintenance Contractor	Remove grate. Remove any debris/litter/sludge from within pits.
Inspect site for litter and floatable debris and remove	Fortnightly	Strata/Maintenance Contractor	Remove litter from site and sweep all driveway and pathways in order to remove leaves or sediments that may enter into the drainage system.
Outlets			
Inspect grate for blockages	Six monthly	Owner	Remove any mulch or debris blocking grate.
Inspect storage area to remove items that may cause blockage	Six monthly	Owner	Inspect storage area and remove all material which may float and be carried to grates.
Inspect actual storage volume to design volume.	Annually	Maintenance Contractor	Calculate available volume and compare to volume on work as executed plan, if loss is greater than 5%, arrange for rectification and notify council of proposal.
Inspect & remove any blockage of orifices	Six monthly	Strata/Maintenance Contractor	Remove grate & screen to inspect orifice. See plan for location of outlets
Check attachment of orifice plates to wall of chamber and/or pit (gaps less than 5 mm)	Annually	Strata/Maintenance Contractor	Remove grate and screen. Ensure plates are mounted securely, tighten fixings if required. Seal gaps as required.
Check orifice diameters are correct and retain sharp edges	Five yearly	Strata/Maintenance Contractor	Compare diameter to design (see Work-as-Executed) and ensure edge is not pitted or damaged.
Inspect screen and clean	Six monthly	Strata/Maintenance Contractor	Remove grate(s) and screens if required to clean them.
Check attachment of screens to wall of chamber or pit	Annually	Strata/Maintenance Contractor	Remove grate(s) and screen(s). Ensure screen fixings are secure. Repair as required.
Check screen(s) for corrosion	Annually	Strata/Maintenance Contractor	Remove grate(s) and examine screen(s) for rust or corrosion, especially at corners or welds.
Inspect grate(s) for damage or blockage	Six monthly	Strata/Maintenance Contractor	Check both sides of a grate for corrosion, (especially corners and welds) damage or blockage.
Inspect outlet pipe & remove any blockage	Six monthly	Strata/Maintenance Contractor	Remove grate(s) and screen(s). Ventilate underground storage if present. Check orifices and remove any blockages in outlet pipe. Flush outlet pipe to confirm it drains freely. Check for sludge/debris on upstream side of return line.
Check step irons for corrosion	Annually	Strata/Maintenance Contractor	Remove grate. Examine step irons and repair any corrosion or damage
Check fixing of step irons is secure	Six monthly	Strata/Maintenance Contractor	Remove grate(s) and ensure fixings are secure prior to placing weight on step iron.
Storage			
Inspect storage & remove any sediment/sludge in pit	Six monthly	Strata/Maintenance Contractor	Remove grate(s) and screen(s). Remove sediment/sludge build-up.
Inspect internal walls of storage (and external, if appropriate) for cracks or spalling	Annually	Strata/Maintenance Contractor	Remove grate(s) to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Inspect & remove any debris/litter/mulch etc blocking grates	Six monthly	Strata/Maintenance Contractor	Remove blockages from grate(s) and check if storage is blocked.
Inspect areas draining to the storage(s) & remove debris/mulch/litter etc likely to block screens/grates	Six monthly	Strata/Maintenance Contractor	Remove debris and floatable material likely to be carried to grates.
Compare storage volume to volume approved. (Rectify if loss > 5%)	Annually	Strata/Maintenance Contractor	Compare actual storage available with Work-as Executed plans. If volume loss is greater than 5%, arrange for reconstruction to replace the volume lost. Council to be notified of the proposal.
Inspect storages for subsidence near pits	Annually	Strata/Maintenance Contractor	Check along drainage lines and at pits for subsidence likely to indicate leakages.

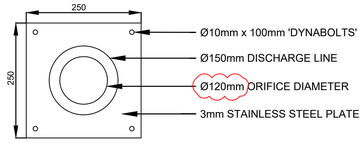


UNDERGROUND OSD TANK DETAILS
SECTION A
SCALE N.T.S.

DRAINS RESULTS					
STORM EVENT (ARI)	PRE-DEV INTERNAL FLOWS (L/s)	OSD POST-DEV FLOWS (L/S)	BYPASS FLOWS (L/s)	TOTAL POST-DEV FLOWS (L/s)	WATER STORAGE LEVEL (m)
5YR	16	14	2	12	25.69
10YR	18	16	2	18	25.74
20YR	21	18	3	21	25.81
50YR	23	19	3	22	25.86
100YR	25	20	3	23	25.97



TRASH SCREEN DETAIL
N.T.S.



ORIFICE PLATE DETAIL
N.T.S.

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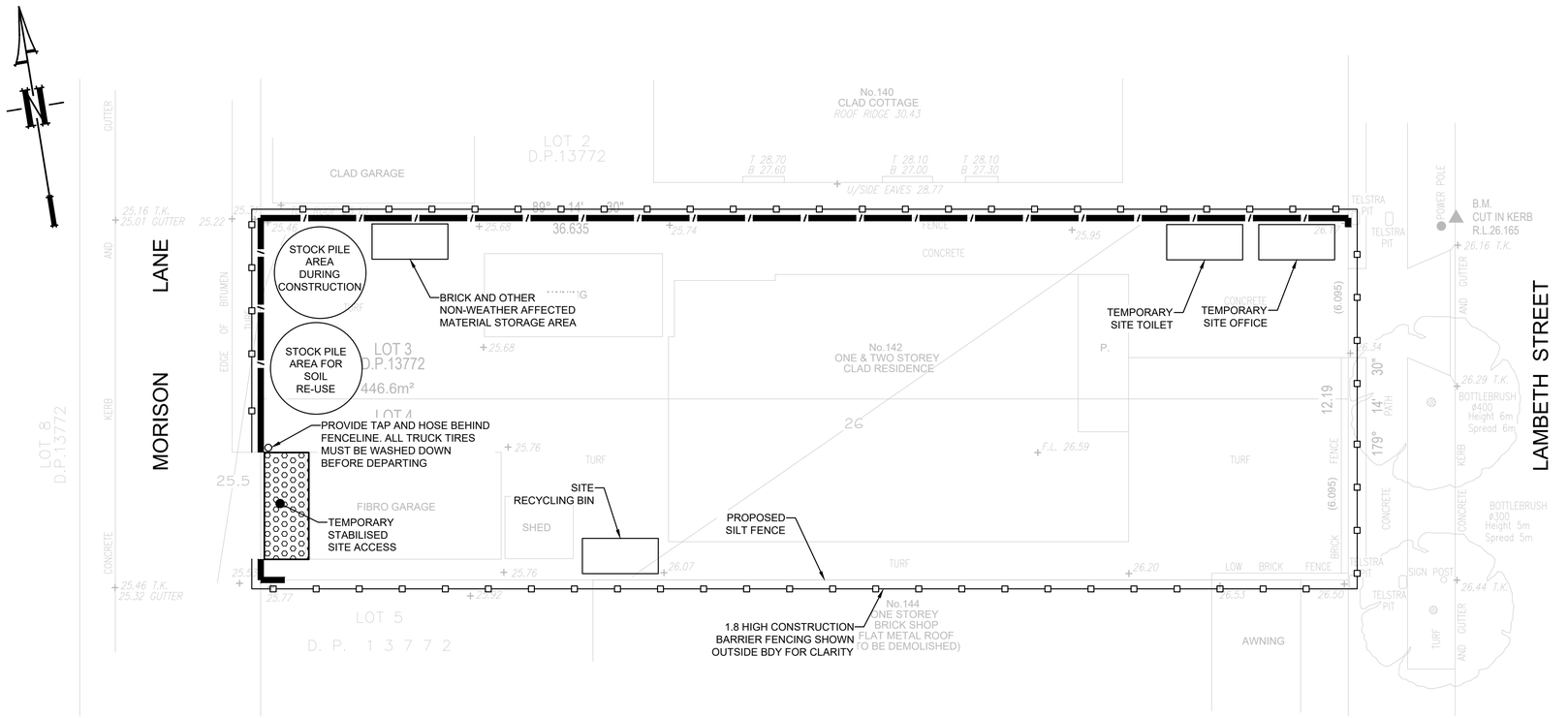
STORMWATER CONCEPT PLAN
DEVELOPMENT APPLICATION

Drawing Title
ON-SITE DETENTION DETAILS AND CALCULATION SHEET

Scale	Project No.	Dwg. No.	Issue
As Shown A1	220601	102	B

LEGEND

- EXISTING WATER MAIN (ExW)
- EXISTING SEWER MAIN (ExS)
- EXISTING TELSTRA (ExT)
- EXISTING ELECTRICAL (ExE)
- EXISTING GAS (ExG)
- EXISTING OPTIC FIBER (ExOP)
- EXISTING CONTOUR (26.45)
- EXISTING SURFACE LEVEL (NS 26.45)
- EARTHWORKS LEVEL (X EL. 47.00)
- DESIGN SURFACE LEVEL (X RL 47.00)
- SILT FENCE
- STABILISED SITE ACCESS
- 1.8 HIGH CONSTRUCTION BARRIER FENCING
- TREES TO BE RETAINED
- TREES TO BE REMOVED
- INLET PROTECTION

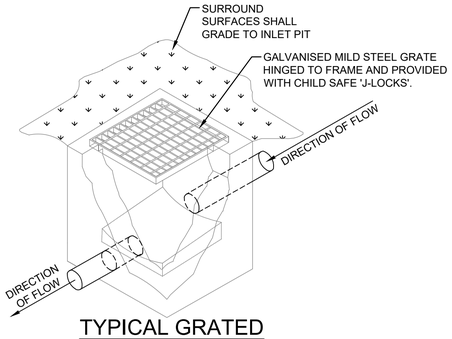


SEDIMENT & EROSION CONTROL PLAN

SCALE 1:100

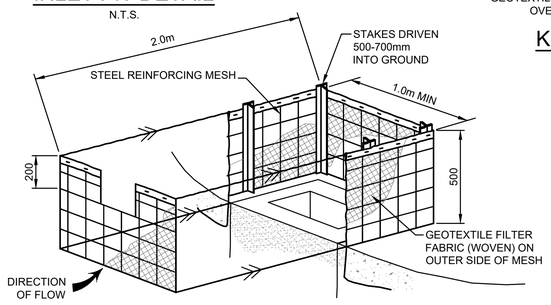
SEDIMENT & EROSION NOTES

1. IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO NOMINATE THE LOCATIONS AND TYPES OF SEDIMENT AND EROSION CONTROL MEASURES TO BE ADOPTED. THESE MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CLEARING OR EARTHWORKS AND MAINTAINED UNTIL THE WORKS ARE COMPLETED AND NO LONGER POSE AN EROSION HAZARD, UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT.
2. IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO IDENTIFY AND MARK TREES WHICH ARE TO BE PRESERVED. NOTWITHSTANDING THE ABOVE,THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO MINIMISE DISTURBANCE TO EXISTING VEGETATION AND GROUND COVER OUTSIDE THE MINIMUM AREAS REQUIRED TO COMPLETE THE WORKS AND SHALL BE RESPONSIBLE FOR RECTIFICATION, AT ITS OWN COST, OF ANY DISTURBANCE BEYOND THOSE AREAS.
3. PROVIDE GULLY GRATE INLET SEDIMENT TRAPS AT ALL GULLY PITS.
4. PROVIDE SILT FENCING ALONG PROPERTY LINE AS DIRECTED BY SUPERINTENDENT.
5. ADDITIONAL CONTROL DEVICES TO BE PLACED WHERE DIRECTED BY THE PRINCIPLE.
6. ALTERNATIVE DESIGNS TO BE APPROVED BY SUPERINTENDENT PRIOR TO CONSTRUCTION.
7. WASH DOWN/RUMBLE AREA TO BE CONSTRUCTED WITH PROVISIONS RESTRICTING ALL SILT AND TRAFFICKED DEBRIS FROM ENTERING THE STORMWATER SYSTEM.
8. NO WORK OR STOCKPILING OF MATERIALS TO BE PLACED OUTSIDE OF SITE WORK BOUNDARY.
9. APPROPRIATE EROSION AND SEDIMENT CONTROLS TO BE USED TO PROTECT STOCKPILES AND MAINTAINED THROUGH OUT CONSTRUCTION.
10. IT IS THE CONTRACTORS RESPONSIBILITY TO TAKE DUE CARE OF NATURAL VEGETATION. NO CLEARING IS TO BE UNDERTAKEN WITHOUT PRIOR APPROVAL FROM THE SUPERINTENDENT.
11. TO AVOID DISTURBANCE TO EXISTING TREES, EARTHWORKS WILL BE MODIFIED AS DIRECTED ON-SITE BY THE SUPERINTENDENT.
12. THE LOCATION OF EROSION AND SEDIMENTATION CONTROLS WILL BE DETERMINED ON SITE BY THE SUPERINTENDENT.
13. ACCESS TRACKS THROUGH THE SITE WILL BE LIMITED TO THOSE DETERMINED BY THE SUPERINTENDENT AND THE CONTRACTOR PRIOR TO ANY WORK COMMENCING.
14. ALL SETTING OUT IS THE RESPONSIBILITY OF THE CONTRACTOR PRIOR TO WORKS COMMENCING ON SITE. THE SUPERINTENDENT'S SURVEYOR SHALL PEG ALL ALLOTMENT BOUNDARIES, PROVIDE COORDINATE INFORMATION TO THESE PEGS AND PLACE BENCH MARKS. THE CONTRACTOR SHALL SET OUT THE WORKS FROM AND MAINTAIN THESE PEGS.



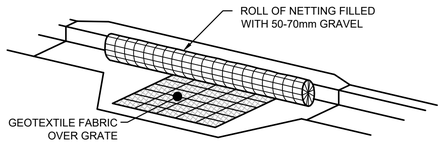
TYPICAL GRATED INLET PIT DETAIL

N.T.S.



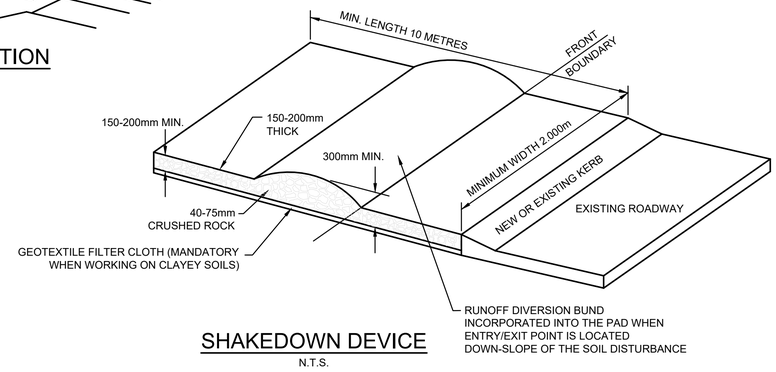
FIELD INLET SEDIMENT TRAP

N.T.S.



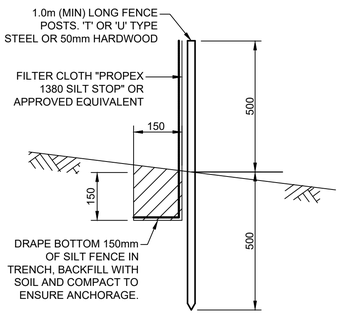
KERB INLET PROTECTION SAG GULLIES

N.T.S.



SHAKEDOWN DEVICE

N.T.S.



SILT FENCE DETAIL

N.T.S.

SILT FENCE NOTES:

1. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS WITH GALVANISED WIRE TIES, STAPLES OR ATTACHMENT BELTS.
2. POSTS SHOULD NOT BE SPACED MORE THAN 3.0m APART.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 150mm AND FOLDED.
4. FOR EXTRA STRENGTH TO SILT FENCE, WOVEN WIRE (14mm GAUGE, 150mm MESH SPACING) TO BE FASTENED SECURELY BETWEEN FILTER CLOTH AND POSTS BY WIRE TIES OR STAPLES
5. INSPECTIONS SHALL BE PROVIDED ON A REGULAR BASIS, ESPECIALLY AFTER RAINFALL AND EXCESSIVE SILT DEPOSITS REMOVED WHEN "BULGES" DEVELOP IN SILT FENCE
6. SEDIMENT FENCES SHALL BE CONSTRUCTED WITH SEDIMENT TRAPS AND EMERGENCY SPILLWAYS AT SPACINGS NO GREATER THAN 40m ON FLAT TERRAIN DECREASING TO 20m SPACINGS ON STEEP TERRAIN.

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Drawing Title: SEDIMENT & EROSION CONTROL PLAN & DETAILS

Scale	Project No.	Dwg. No.	Issue
A1 As Shown	220601	103	A