

29 ANZAC STREET, GREENACRE PROPOSED INDUSTRIAL AND COMMERCIAL DEVELOPMENT

STORMWATER CONCEPT PLANS

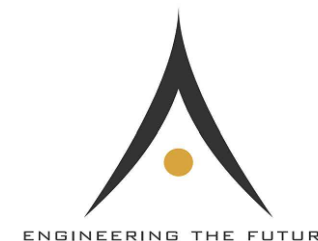


LOCALITY PLAN
N.T.S

DRAWING INDEX	
Drawing No.	DESCRIPTION
000	COVER SHEET PLAN
101	STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 1 OF 2
102	STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 2 OF 2
103	STORMWATER CONCEPT PLAN GROUND LEVEL
104	ON-SITE DETENTION DETAILS AND CALCULATIONS
105	SEDIMENT AND EROSION CONTROL PLAN & DETAILS
106	MISCELLANEOUS DETAILS SHEET

FIRE SEALING OF PENETRATIONS

- PENETRATIONS THROUGH CONCRETE SLABS SHALL BE SEALED TO PROVIDE A MINIMUM TWO HOUR FRL TO AS1530.
- PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE SEALED TO PROVIDE A MINIMUM TWO HOUR FRL TO AS1530.
- THE CONTRACTOR SHALL SUBMIT IN WRITING AND SEEK APPROVAL FROM THE PRINCIPAL CERTIFYING AUTHORITY FOR THE INTENDED METHODS TO BE USED FOR FIRE SEALING PENETRATIONS PRIOR TO THEIR SUPPLY AND INSTALLATION.
- WHERE UPVC PIPES PENETRATE CONCRETE SLABS OR FIRE RATED WALLS, THEY SHALL BE PROVIDED WITH AN APPROVED FIRE RATED COLLAR HAVING THE SAME FIRE RATING OR GREATER THAN THE ELEMENT BEING PENETRATED.
- WHERE SERVICES OTHER THAN UPVC PENETRATE CONCRETE OR MASONARY BUILDING ELEMENTS, SEAL ANY GAPS BETWEEN THE SERVICES AND THE ELEMENT WITH AN APPROVED SILICON FIRE-STOP FOAM HAVING THE SAME FIRE RATING OR GREATER THAN THE ELEMENT BEING PENETRATED.

					Architect NUOVO DESIGN STUDIO	Council CANTERBURY BANSTOWN COUNCIL	Scale	 ENGINEERING THE FUTURE	CIVIL & STORMWATER ENGINEERING SERVICES PTY LTD ABN: 27 644 422 506 Shop 1, 143-147 Parramatta Road, Concord, NSW 2137 P:(02) 8397 6500 E:info@esgconsult.com.au	Project 29 ANZAC STREET, GREENACRE PROPOSED INDUSTRIAL AND COMMERCIAL DEVELOPMENT STORMWATER CONCEPT PLAN DEVELOPMENT APPLICATION	Drawing Title COVER SHEET PLAN			
A	ISSUE FOR DEVELOPMENT APPLICATION		17/06/2022	YRM	EH	OC	E: wageeh@nuovodesignstudio.com.au W:www.nuovodesignstudio.com.au					Scale N.T.S.	A1	Project No. 220125

FOR CLEANING OPENINGS (CO)
BEHIND STORAGE CAGES, ALLOW
600x600 OPENING WITHIN THE REAR
MESH FOR MAINTENANCE PURPOSES.

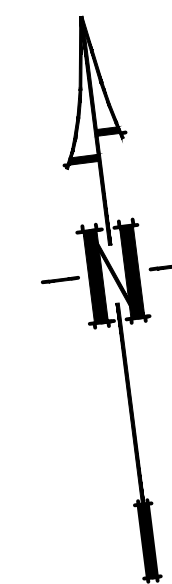
**ALLOW FOR 600x600 ACCESS TO
CLEANING OPENINGS (CO) BETWEEN
WET WALLS AND ROOMS WALLS.
FOR FIRE COMPARTMENTS, ACCESS
HATCH TO COMPLY WITH FIRE
CONSULTANT'S REQUIREMENTS**

PROVIDE 100mm DEEP LAYER OF 10mm
BLUE METAL AGGREGATE UNDER THE
SLAB ON GROUND IN BETWEEN FOOTINGS.
REFER DETAIL ON DRAWING 102

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

ALL STORMWATER DRAINAGE
PIPES ARE Ø100 uPVC U.N.O.

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



STREET

ANZAC

SCALE 1:100

	PROPOSED STORMWATER
	Ø100mm VERTICAL DROP
	SURFACE FLOW DIRECTION
	Ø100mm SUBSOIL DRAIN TO BE WRAPPED IN GEOTEXTILE BIDIMA34 @MIN 1.0% SLOPE
	CLEANING EYE (OR INSPECTION EYE)
	INSPECTION OPENING
	FINISHED SURFACE LEVEL
	GRATED DRAIN
	Ø150mm FLOOR GRATE

THE PUMP OUT SYSTEM SHALL BE DESIGNED TO BE OPERATED IN THE FOLLOWING MANNER:

- 1 - THE PUMP SHALL BE PROGRAMMED TO WORK ALTERNATELY TO ALLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP LIFE.
- 2 - A FLOAT SHALL BE PROVIDED TO ENSURE OF THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK. IN THIS REGARD THIS FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS AT THE MINIMUM WATER LEVEL. THE SAME FLOAT SHALL BE SET TO TURN ONE OF THE PUMPS ON UPON THE WATER LEVEL IN THE TANK RISING TO APPROXIMATELY 300mm ABOVE THE MINIMUM WATER LEVEL. THE PUMP SHALL OPERATE UNTIL THE TANK IS DRAINED TO THE MINIMUM WATER LEVEL.
- 3 - A SECOND FLOAT SHALL BE PROVIDED AT A HIGH LEVEL, WHICH IS APPROXIMATELY THE ROOF LEVEL OF THE BELOW GROUND TANK. THIS FLOAT SHALL START THE OTHER PUMP THAT IS NOT OPERATING AND ACTIVATE THE ALARM.
- 4 - AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT AND A PUMP FAILURE WARNING SIGN WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT LEVEL. THE ALARM SYSTEM SHALL BE PROVIDED WITH A BATTERY BACK-UP IN CASE OF POWER FAILURE.
- 5 - A CONFINED SPACE DANGER SIGN SHALL BE PROVIDED AT ALL ACCESS POINT TO THE PUMP-OUT STORAGE TANK IN ACCORDANCE WITH THE UPPER PARRAMATTA RIVER CATCHMENT TRUST OSD HANDBOOK.



SIGN SHALL BE PLACED IN A CLEAR AND VISIBLE
LOCATION WHERE VEHICLES ENTER THE BASEMENT

COLOURS:
"WARNING" = RED
BORDER AND OTHER LETTERING = BLACK



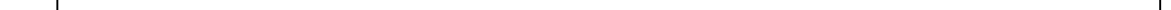
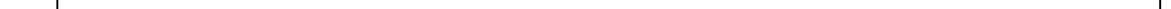
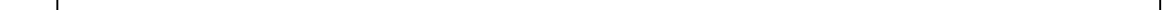
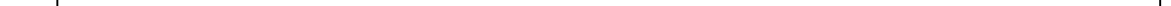
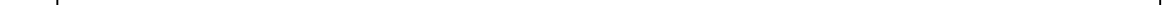
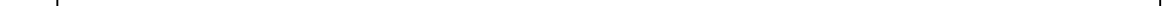
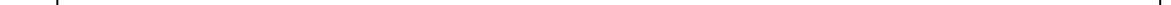
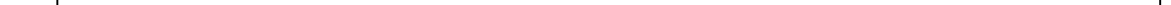
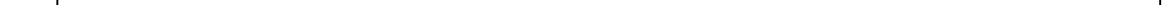
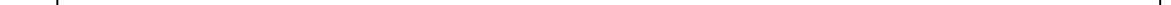
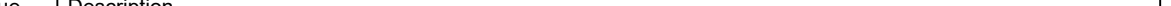
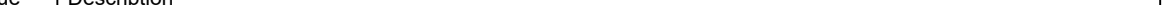
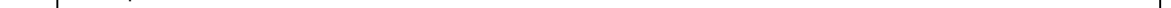
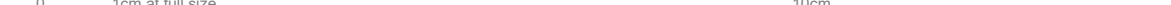
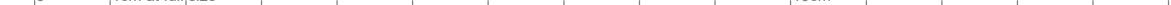
A) A CONFINED SPACE DANGER SIGN SHALL BE POSITIONED IN A LOCATION AT ALL ACCESS POINTS, SUCH THAT IT IS CLEARLY VISIBLE TO PERSONS PROPOSING TO ENTER THE BELOW GROUND TANK/S CONFINED SPACE.

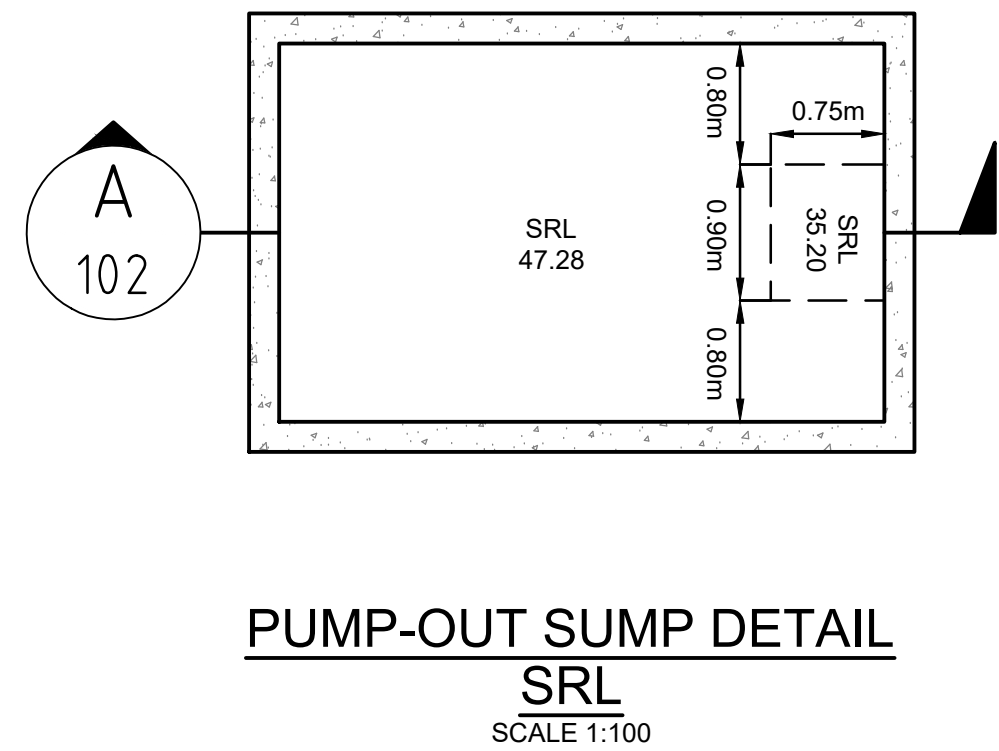
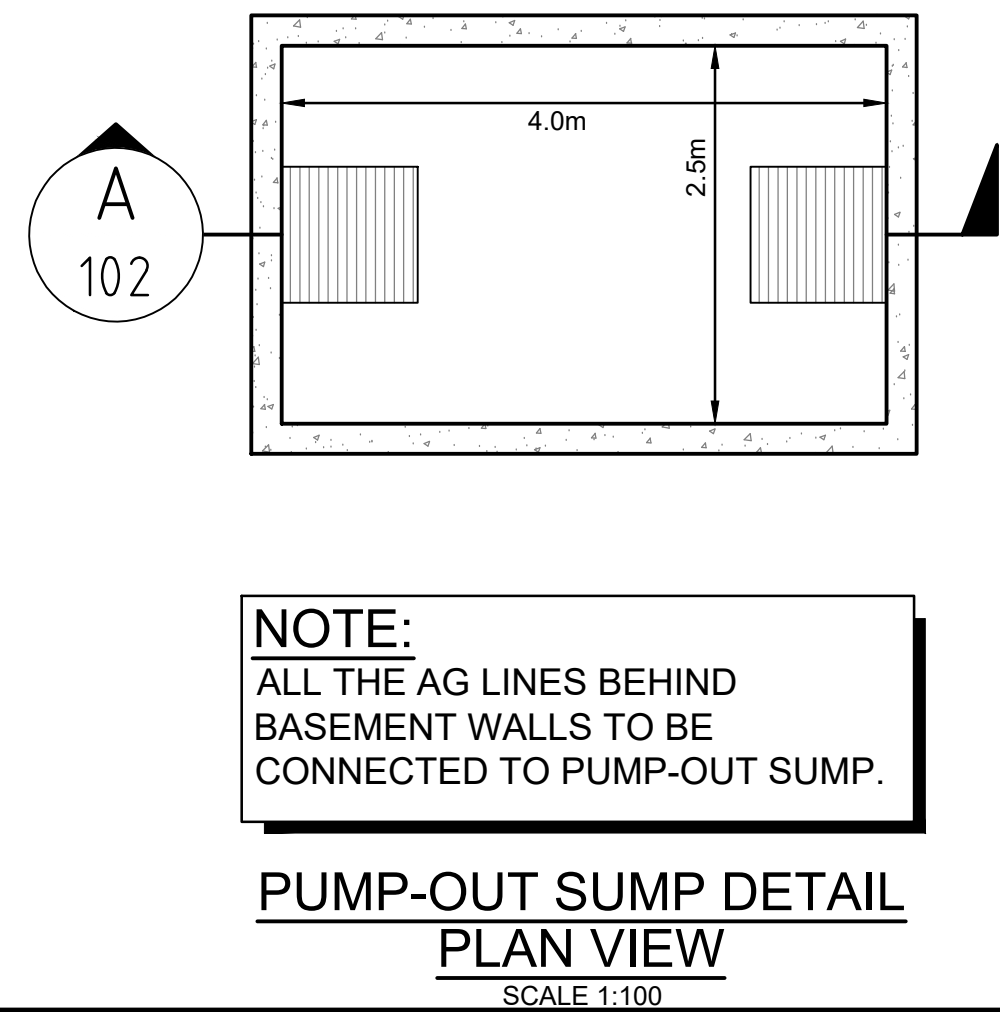
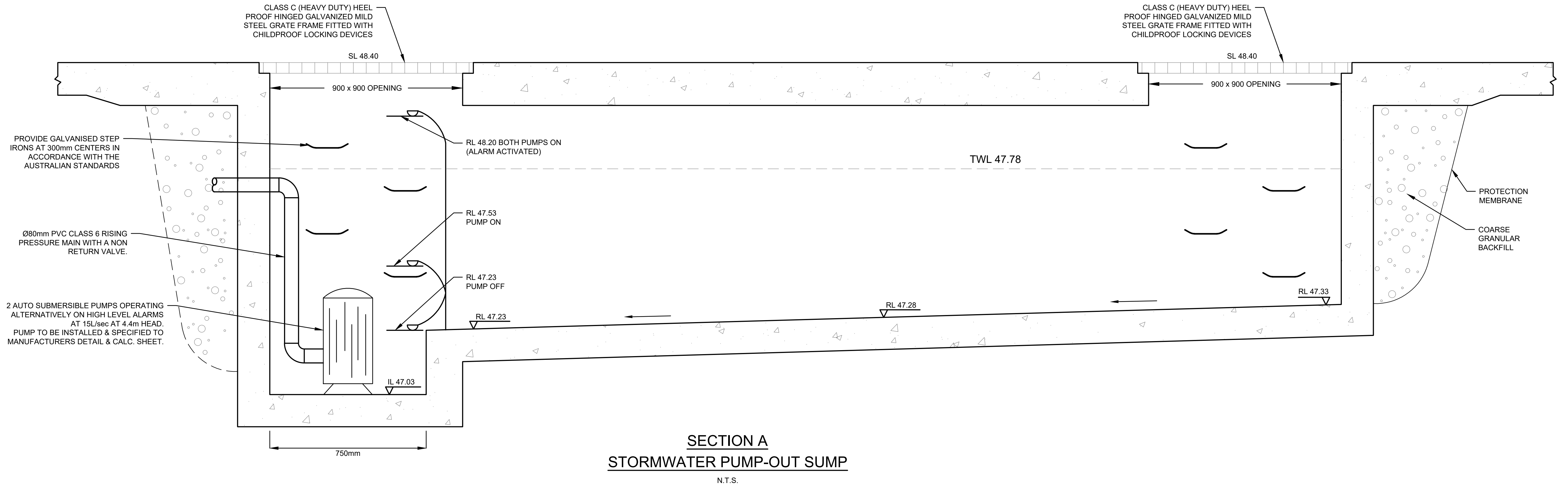
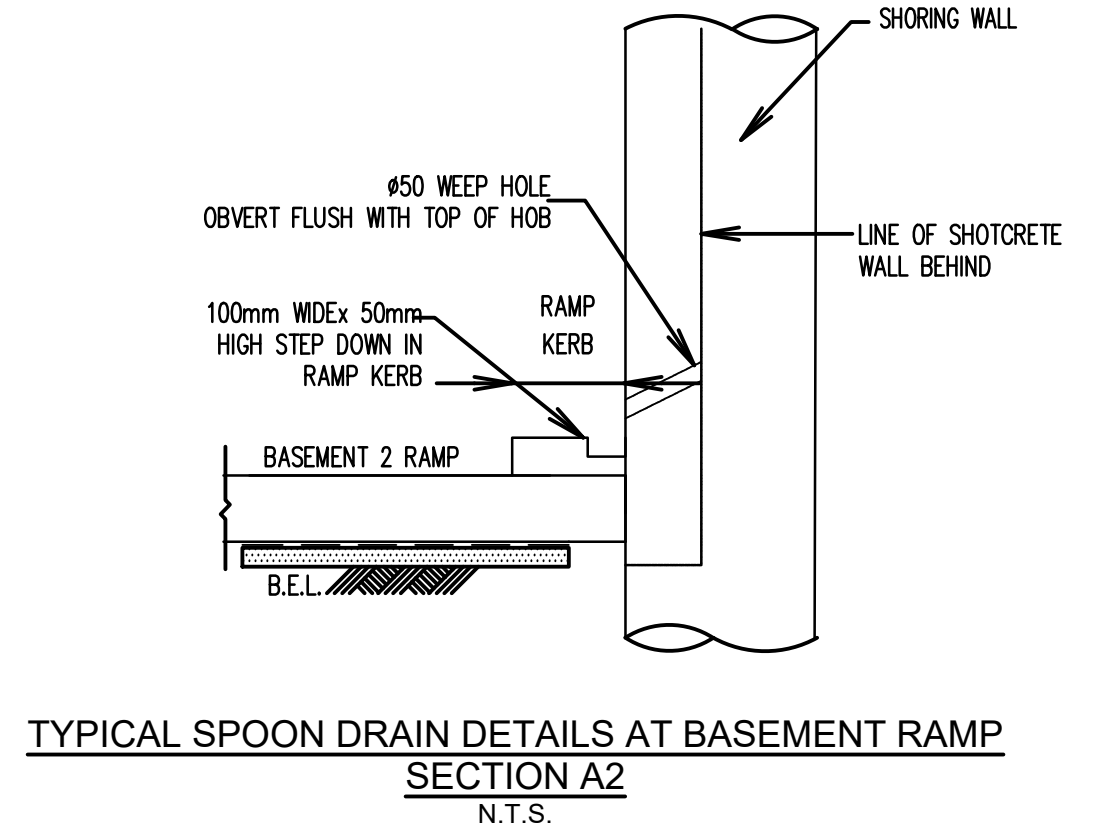
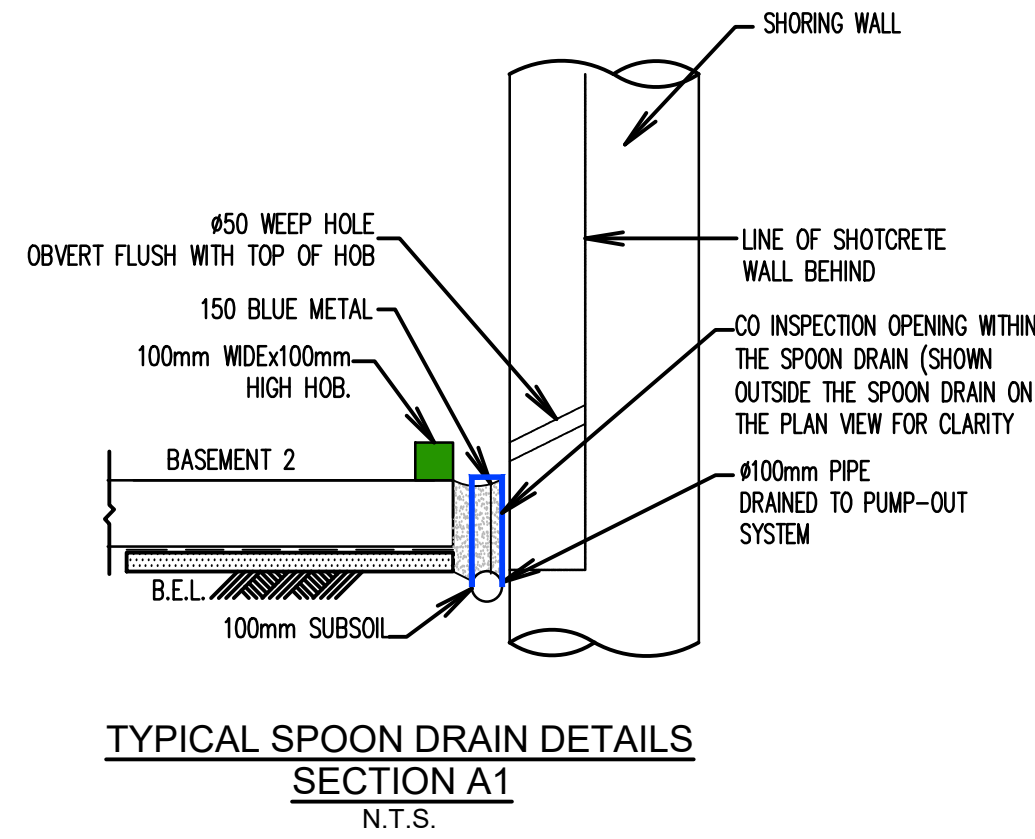
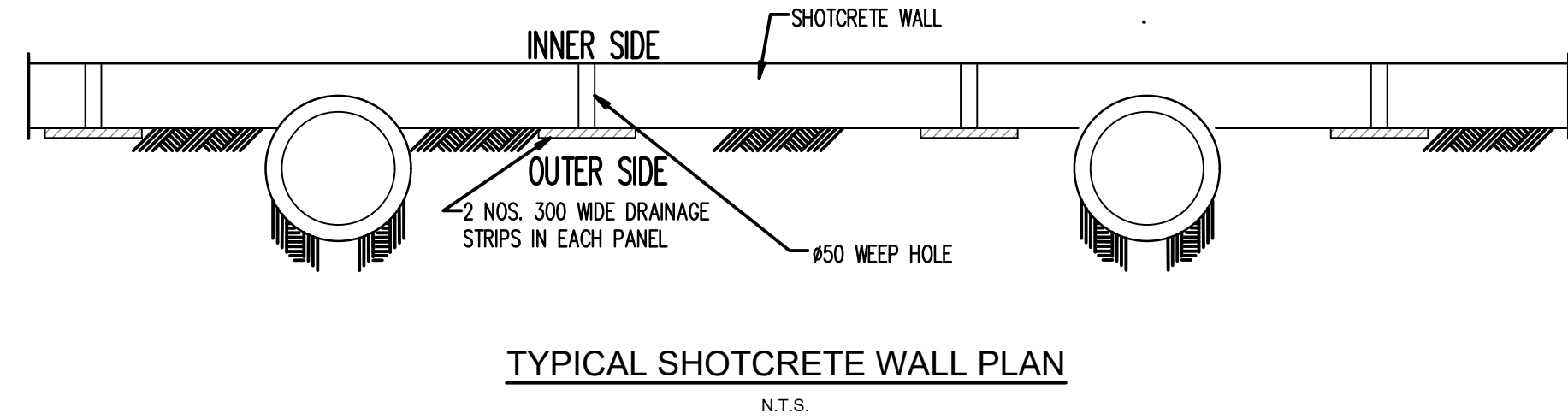
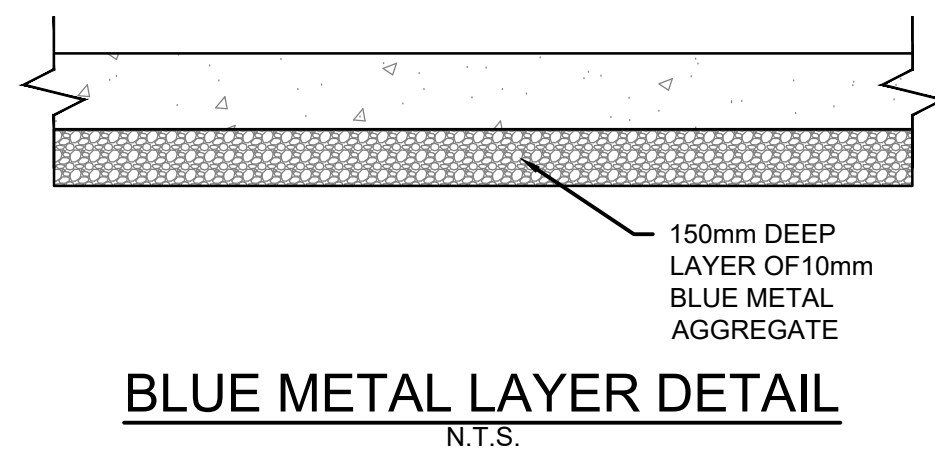
B) MINIMUM DIMENSIONS OF THE SIGN - 300mm x 450mm (LARGE ENTRIES, SUCH AS DOORS) -250mm x 180mm (SMALL ENTRIES SUCH AS GRATES & MANHOLES)

C) THE SIGN SHALL BE MANUFACTURED FROM COLOUR BONDED ALUMINUM OR POLYPROPYLENE

D) SIGN SHALL BE AFFIXED USING SCREWS AT EACH CORNER OF THE SIGN

COLOURS:
 "DANGER" & BACKGROUND = WHITE
 ELLIPTICAL AREA = RED
 RECTANGLE CONTAINING ELLIPSE = BLACK
 BORDER AND OTHER LETTERING = BLACK

					Architect NUOVO DESIGN STUDIO	Council CANTERBURY BANSTOWN COUNCIL	Scale 	 CIVIL & STORMWATER ENGINEERING SERVICES PTY LTD ABN: 27 644 422 506 Shop 1, 143-147 Parramatta Road, Concord, NSW 2137 P:(02) 8397 6500 E:info@esaconsult.com.au	Project 29 ANZAC STREET, GREENACRE PROPOSED INDUSTRIAL AND COMMERCIAL DEVELOPMENT STORMWATER CONCEPT PLAN DEVELOPMENT APPLICATION	Drawing Title STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 1 OF 2
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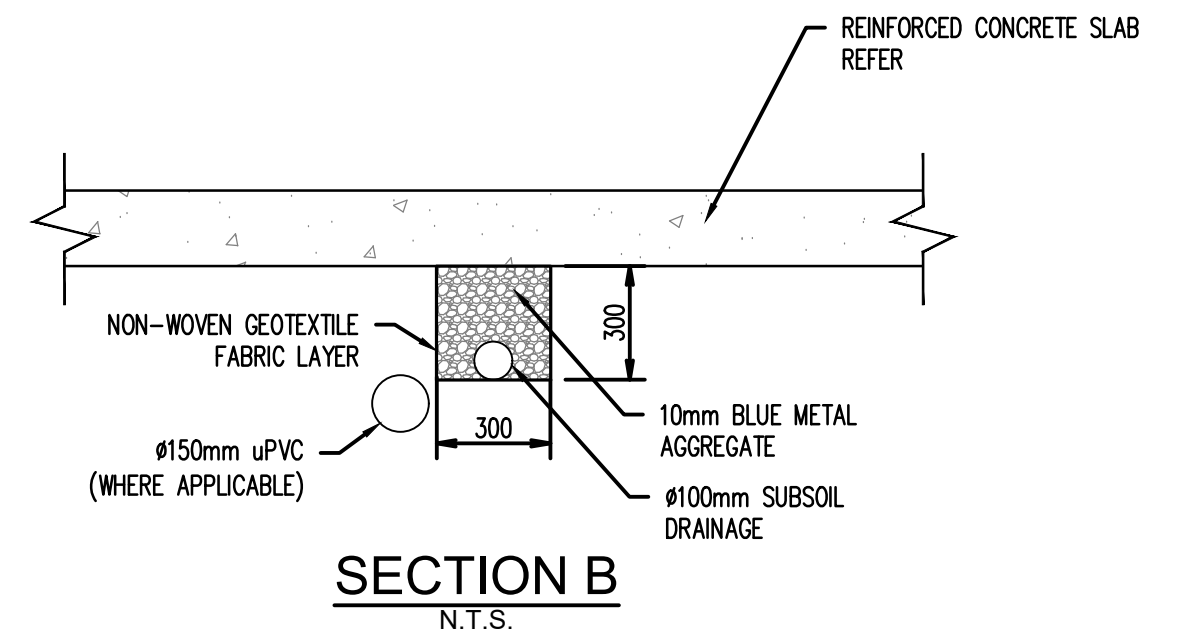
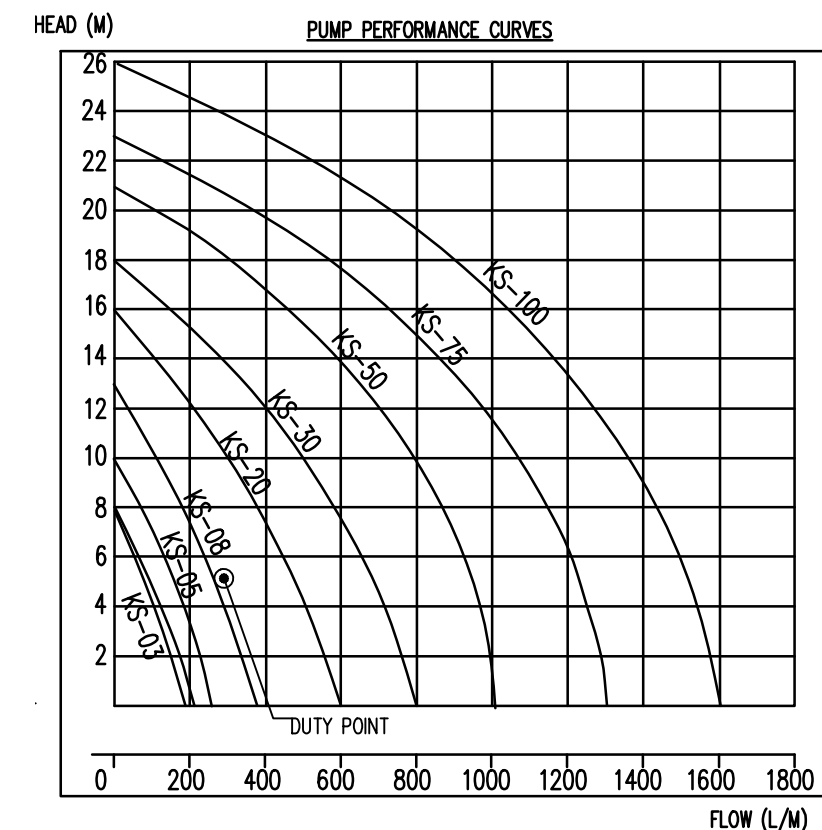
PUMP STORAGE VOLUME CALCULATION

AREA DRAINING TO SUMP = 37.12 m²

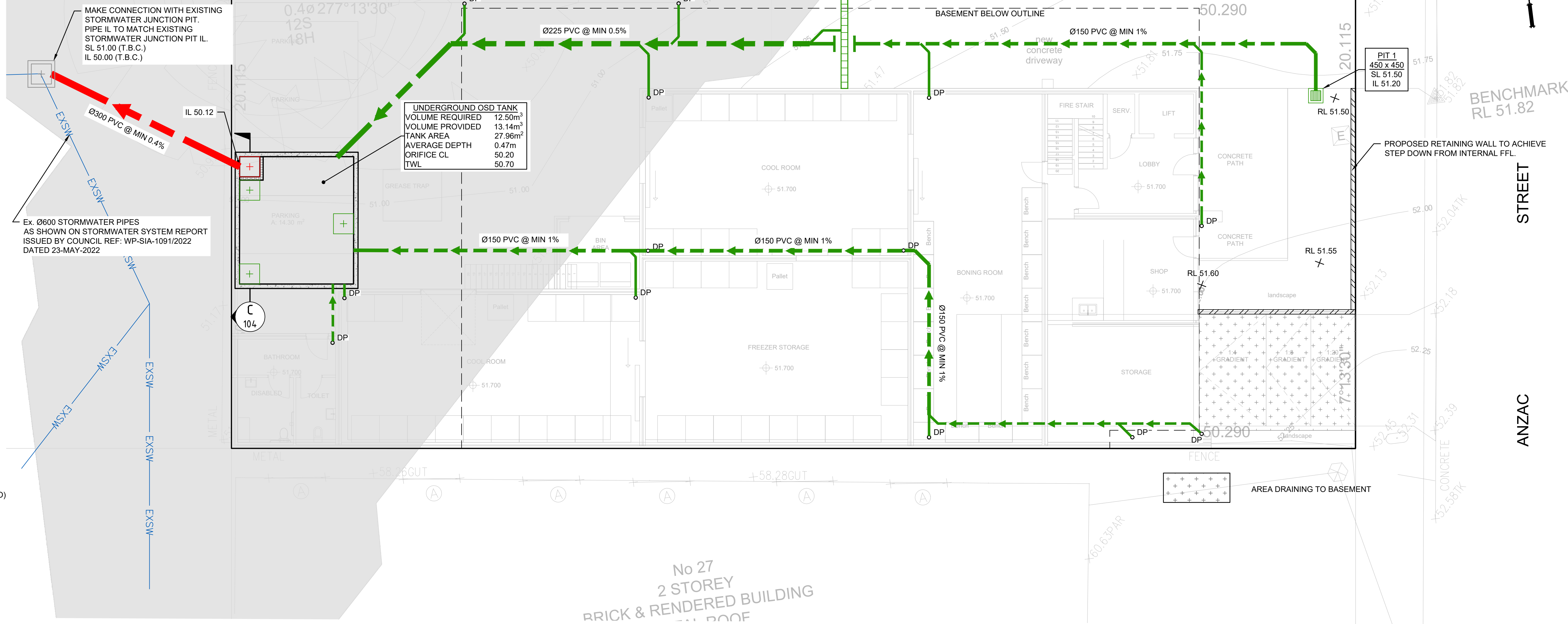
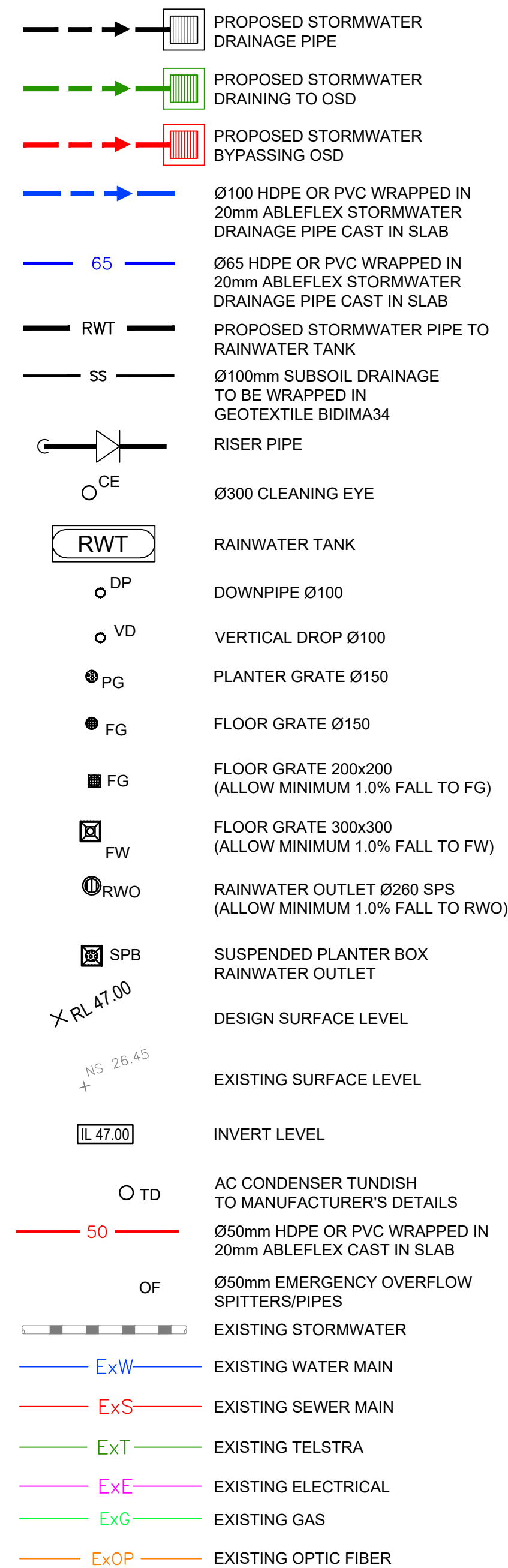
SUMP SIZE BASED ON 100 YR 2 HR STORM, I = 51.8 mm/hr,
Q = CIA/3600 = 1 x 51.8 x 37.12/3600 = 0.53 L/sec
VOLUME REQUIRED = 0.53 x (2 x 60 x 60) = 3816 L = 3.82 m³
STORAGE PROVIDED 4 x 2.5 x 0.5 = 5 m³

PUMP OUT RATE BASED ON 100 YR 5 MIN STORM, I = 240 mm/hr
(MIN RATE REQUIRED AS PER AS3500.3 IS 10 L/sec)
Q = CIA/3600 = 1 x 240 x 37.12/3600 = 2.47 L/sec

DUAL KS-75 PUMP OR EQUIVALENT TO BE INSTALLED IN SUMP AND CONNECTED TO CONTROL PANEL WHICH WILL ALLOW FOR THE PUMP TO OPERATE ALTERNATIVELY ON HIGH LEVEL WITH ALARM AT 15 L/sec AT 4.4m HEAD



Type	Output	Outlet				Rated		Maximum		Weigh	Dimension		
						Head Capacity		Head	Capacity		L(mm) W(mm) H(mm)		
		HP	kW	mm	Inch	M	LPM	M	LPM		Kg		
KS-03	1/3	0.25	40	1 1/2"	3	130	8	180	9	188	141	305	
KS-04	1/2	0.4	50	2"	5	150	8	220	11	208	140	359	
KS-05	1/2	0.4	50	2"	5	160	10	260	14	230	156	375	
KS-08	1	0.75	50	2"	6	240	13	360	21	290	182	425	
KS-10	2	1.5	80	3"	10	300	16	600	31	278	182	475	
KS-30	3	2.2	80	3"	10	500	18	800	42	390	250	450	
KS-50	5	3.7	100	4"	10	800	21	1100	48	450	240	530	
KS-75	7 1/2	5.6	100	4"	15	800	23	1300	60	550	310	590	
KS-100	10	7.5	150	6"	18	900	25	1600	70	550	310	610	



GROUND FLOOR PLAN

SCALE 1:100

GENERAL NOTES

- | | | |
|--|---|--|
| <p>1. ALL LINES ARE TO BE Ø90 uPVC 1.0% GRADE UNLESS NOTED OTHERWISE. CHARGED LINES TO BE SEWERGRADE & SEALED.</p> <p>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.</p> <p>3. ALL PIPES TO HAVE MIN 150mm COVER IF LOCATED WITHIN PROPERTY.</p> <p>4. ALL PITS IN DRIVEWAYS TO BE 450x450 CONCRETE AND ALL PITS IN LANDSCAPED AREAS TO BE 450x450 PLASTIC.</p> <p>5. PITS LESS THAN 600mm DEEP MAY BE BRICK, PRECAST OR CONCRETE.</p> <p>6. ALL BALCONIES AND ROOFS TO BE DRAINED AND TO HAVE SAFETY OVERFLOWS IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.</p> <p>7. ALL EXTERNAL SLABS TO BE WATERPROOFED.</p> | <p>9. ALL DRAINAGE WORKS TO AVOID TREE ROOTS.</p> <p>10. ALL DPS TO HAVE LEAF GUARDS.</p> <p>11. ALL EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.</p> <p>12. ALL WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL PRIOR TO CONSTRUCTION.</p> <p>13. COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.</p> <p>14. ALL WORK SHALL BE IN ACCORDANCE WITH B.C.A. AND A.S.3500.3.</p> <p>15. REFER TO LANDSCAPE ARCHITECT'S DRAWINGS FOR LANDSCAPING.</p> <p>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.</p> | <p>IN CONCRETE SLAB. CONTRACTOR TO PROVIDE A BREAK / OPEN VOID IN RAIL / BALLUSTRADE FOR STORMWATER EMERGENCY OVERFLOW.</p> <p>ALL ENCLOSED AREAS/PLANTER BOXES TO BE FITTED WITH FLOOR WASTES & DRAINED TO OSD DOWNPIPES TO BE CHECKED BY ARCHITECT & PLUMBER PRIOR TO CONSTRUCTION</p> <p>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.</p> |
|--|---|--|

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

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**

NOTE:

PITS DEEPER THAN 1.0m
TO BE FITTED WITH STEP
IRONS

NOTE:

REFER ARCHITECTURAL DRAWINGS FOR FINAL SET-OUT LEVELS.

NOTES:

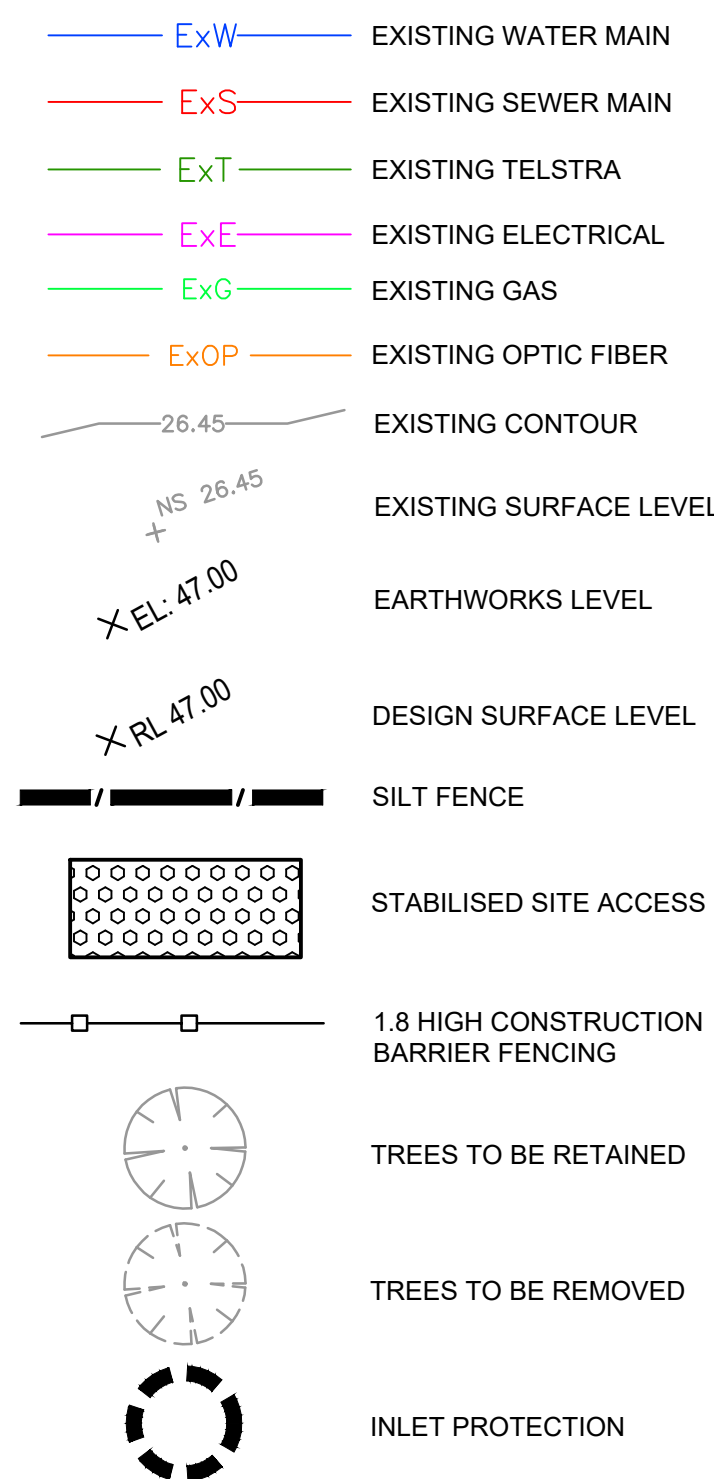
- 1- CONTRACTOR IS TO PROVIDE OVERFLOW OUTLETS & EMERGENCY OVERFLOW SPITTERS TO ALL TRAPPED AREAS.
- 2- DP/VD ARE Ø100mm PIPES U.N.O.
- 3- ALL TRANSFERRING PIPES ARE SUSPENDED U.N.O.
- 4- BALCONIES PIPES ARE Ø50mm HDPE OR PVC WRAPPED IN 20mm ABLEFLEX CAST IN SLAB AT MIN 1.0% SLOPE.

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<table><tr><th>Issue</th><th>Description</th><th>Date</th><th>Designed</th><th>Engineer</th><th>Checked</th></tr><tr><td>0</td><td>from old final size</td><td></td><td></td><td></td><td></td></tr></table>					Issue	Description	Date	Designed	Engineer	Checked	0	from old final size																			
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DRAINS RESULTS

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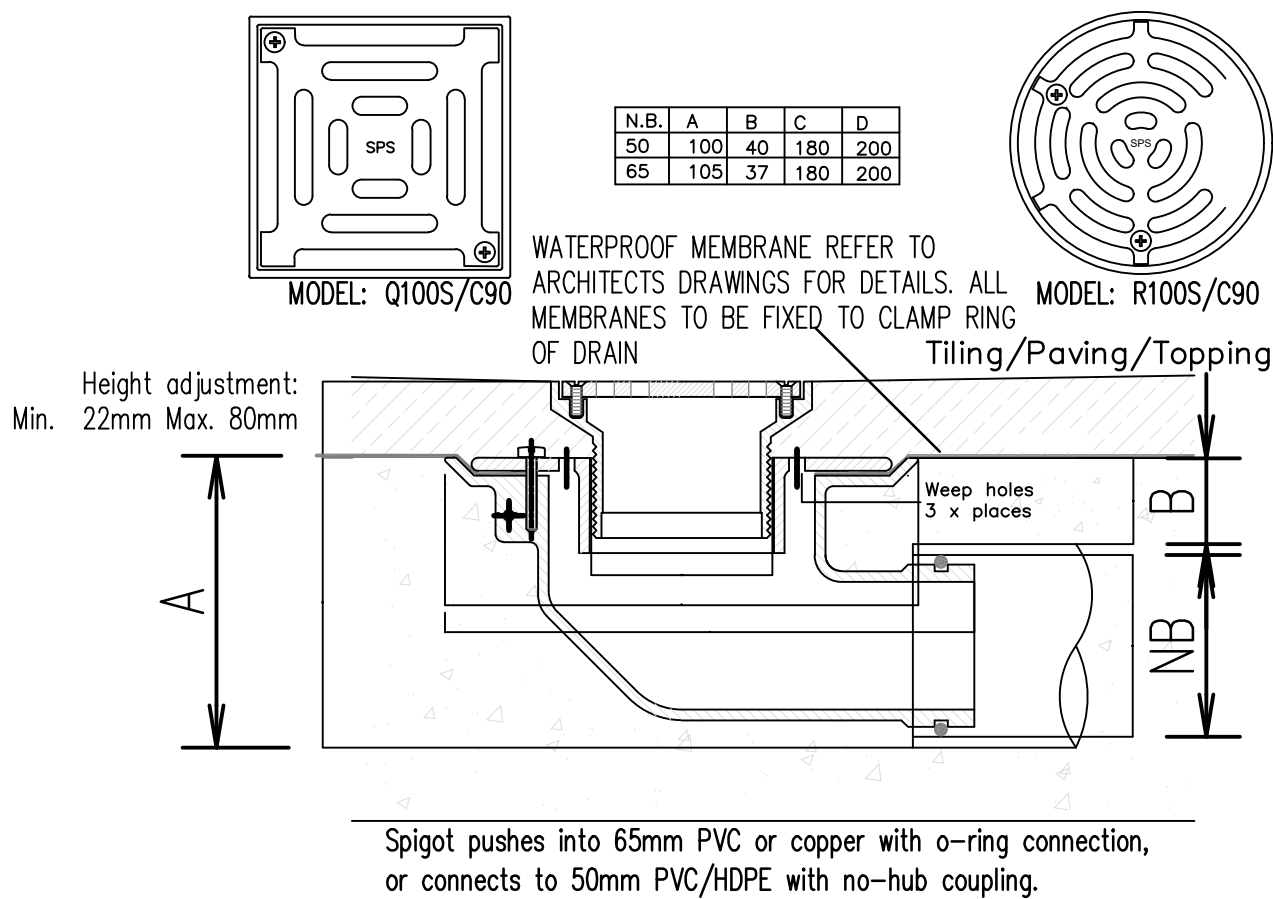
1. IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO NOMINATE THE LOCATIONS AND TYPES OF SEDIMENT AND EROSION CONTROL MEASURES TO BE ADOPTED. THESE MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY 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.



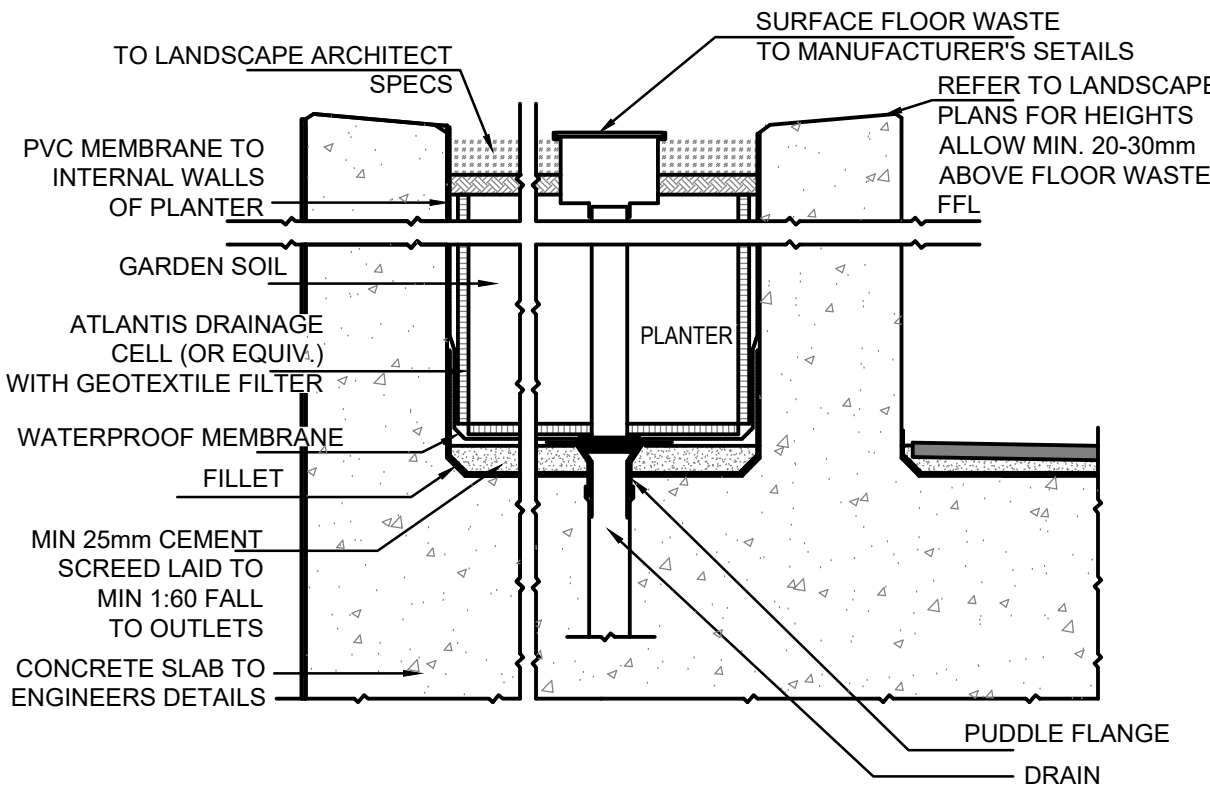
1. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS WITH GALVANISED WIRE TIES, STAPLES OR ATTACHMENT BELTS.
2. POSTS SHOULD NOT BE SPACED MORE THAN 3.0m APART.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 150mm AND FOLDED.
4. FOR EXTRA STRENGTH TO SILT FENCE, WOVEN 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 NECESSARY.
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.

						Architect NUOVO DESIGN STUDIO		Council CANTERBURY BANSTOWN COUNCIL		 CIVIL & STORMWATER ENGINEERING SERVICES PTY LTD ABN: 27 644 422 506 Shop 1, 143-147 Parramatta Road, Concord, NSW 2137 P:(02) 8397 6500 E:info@esaconsult.com.au		Project 29 ANZAC STREET, GREENACRE PROPOSED INDUSTRIAL AND COMMERCIAL DEVELOPMENT STORMWATER CONCEPT PLAN DEVELOPMENT APPLICATION		Drawing Title SEDIMENT & EROSION CONTROL PLAN & DETAILS		
A ISSUE FOR DEVELOPMENT APPLICATION 17/06/2022 YRM EH OC						E: wageeh@nuovodesignstudio.com.au W:www.nuovodesignstudio.com.au		 SCALE 1:100 @ A1						Scale A1 Project No. 220125 Dwg. No. 105 Issue A		
Issue Description Date Designed Engineer Checked																

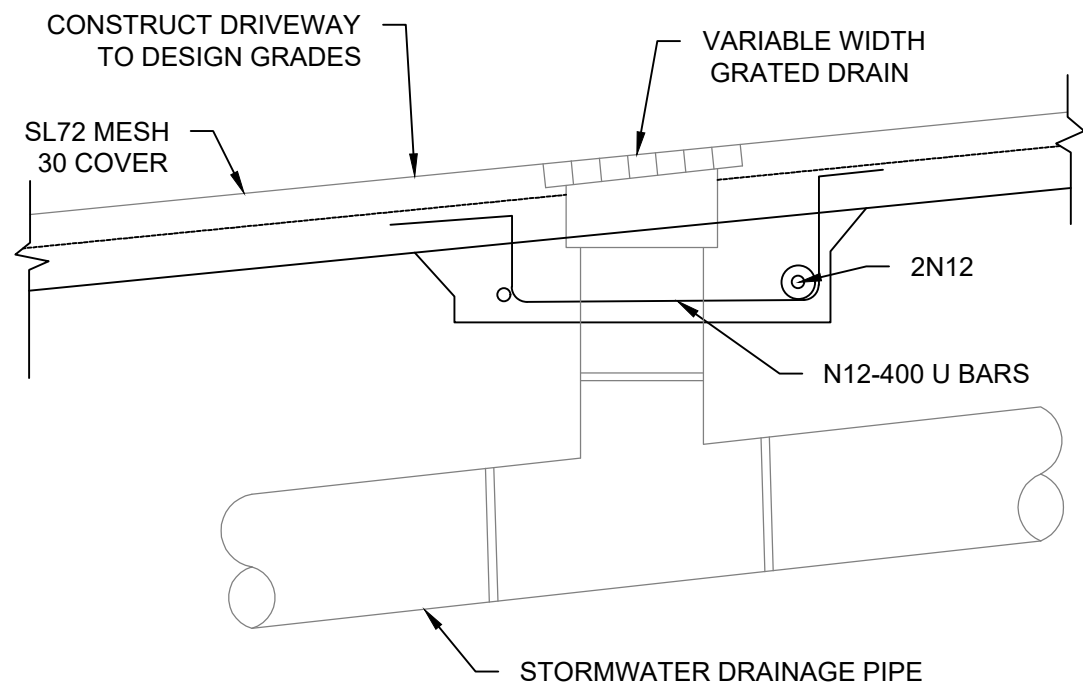
Stormwater Drainage System Maintenance Schedule			
Maintenance Action	Frequency	Responsibility	Procedure
General			
Inspect roof drainage system of building and remove any debris/sludge	Six Monthly	Strata/Maintenance Contractor	Remove any leaves or debris and sludge from gutters of building and flush 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.
Basement Pump out			
Inspect and clean flap valve,	Six Monthly	Strata/Maintenance Contractor	Remove grate and check flap valve and pipe for blockages and clean. Check hinges for rust and test operation by moving flap to full extent.
Check hinge operation.	Annually	Strata/Maintenance Contractor	Inspect hinge and check its operation.
Check attachment of flap valve to wall pit.	Annually	Strata/Maintenance Contractor	Remove grate and ensure valve fixings are secure.
Check flap valve seal.	Six Monthly	Strata/Maintenance Contractor	Remove grate and fill pit with water, ensure flap seals against side of pit with minimal leakage.
Inspect walls for cracking or spalling.	Annually	Strata/Maintenance Contractor	Remove grate to inspect internal walls, remove vegetation to inspect external wall, repair as required.
Inspect sump and clean.	Six Monthly	Strata/Maintenance Contractor	Remove grate and clean sediment/sludge from sump.
Inspect grate for damage or blockage.	Six Monthly	Strata/Maintenance Contractor	Check both sides of grate for corrosion (particularly welds and corners); also check for damage and blockages
Inspect outlet pipe and remove blockages	Six Monthly	Strata/Maintenance Contractor	Remove grate and flush outlet pipe to ensure it drains freely. Check for debris on upstream side of return line.
Outlets			
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 walls (internal 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 outlet sumps & remove any sediment/sludge	Six monthly	Strata/Maintenance Contractor	Remove grate(s) and screen(s). Remove sediment/sludge build-up and check orifices are clear.
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.



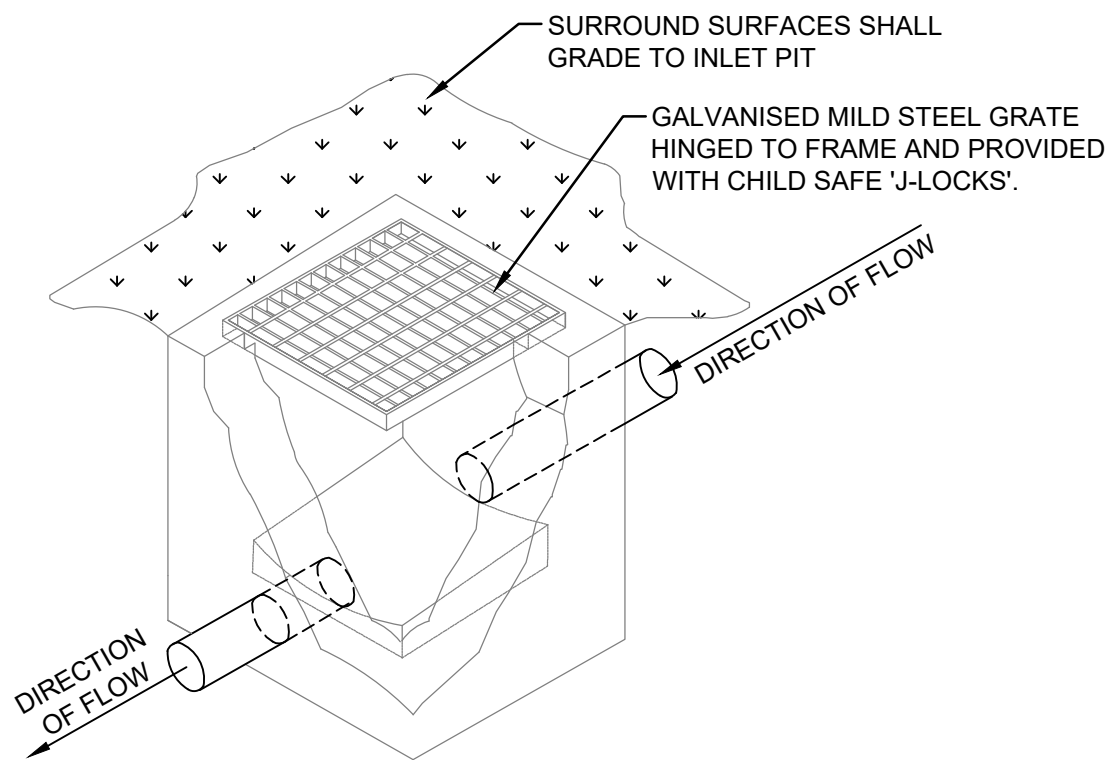
TYPICAL CAST IN FLOOR WASTE/RAINWATER OUTLET



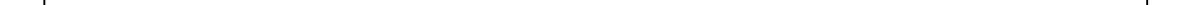
TYPICAL SUSPENDED PLANTER BOX FLOOR WASTE DETAIL
N.T.S.



GRATED DRAIN DETAIL
N.T.S.



TYPICAL GRATED INLET PIT DETAIL
N.T.S.

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					NUOVO DESIGN STUDIO	CANTERBURY BANSTOWN COUNCIL											
A	ISSUE FOR DEVELOPMENT APPLICATION				17/06/2022	YRM	EH	OC	E: wageeh@nuovodesignstudio.com.au W:www.nuovodesignstudio.com.au								
Issue	Description				Date	Designed	Engineer	Checked									
																	
Scale A1 Project No. 220125 Dwg. No. 106 Issue A																	