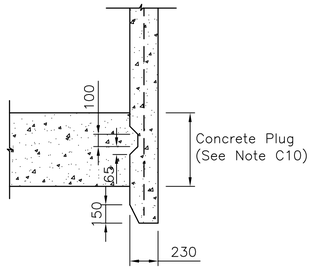
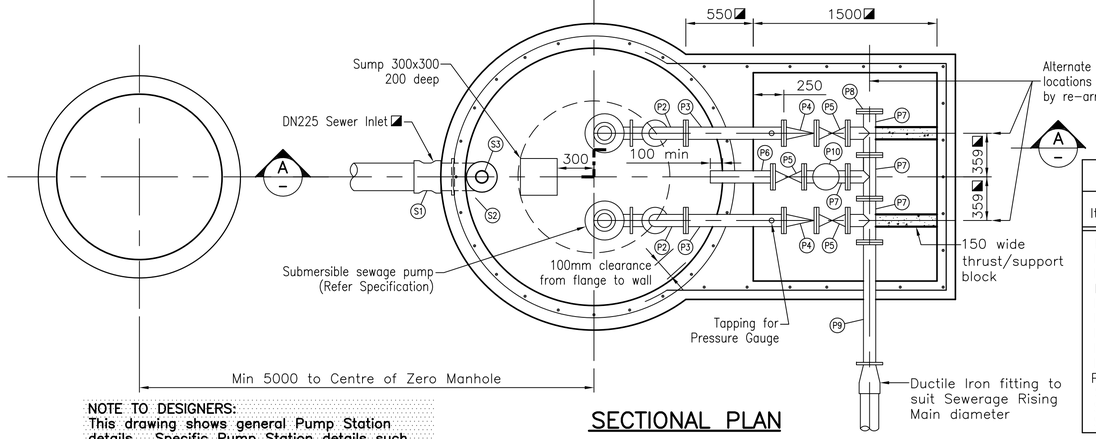


ALTERNATIVE PLUG DETAIL



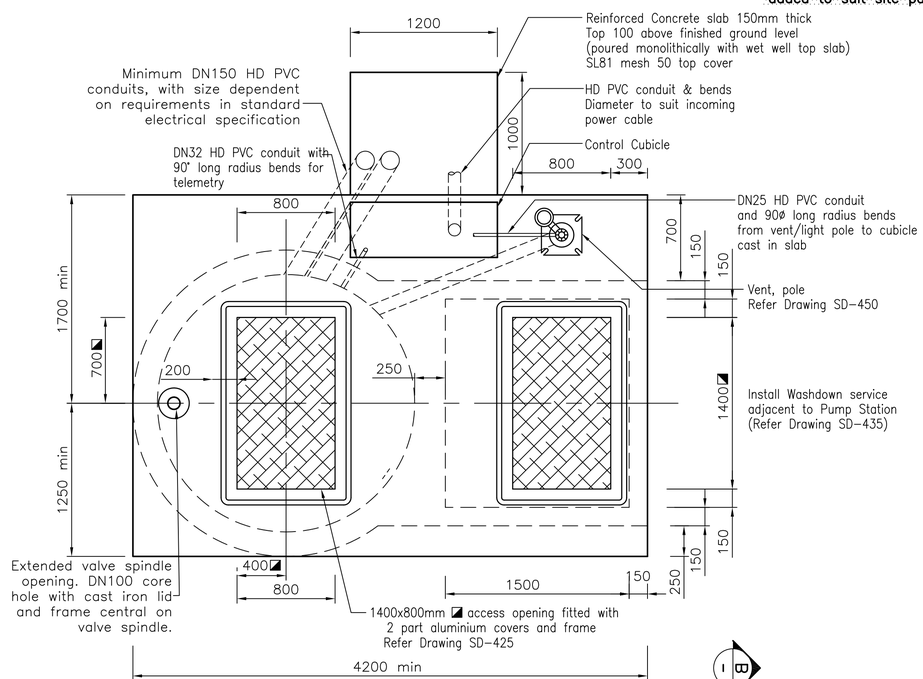
SECTIONAL PLAN

TABLE OF LEVELS		
Level	Description	RL (m)
A	Finished structure level	
B	Finished surface level	
C	Inlet invert level & alarm activation level	
D	Standby pump start level	
E	Duty pump start level	
F	Pump stop level	
G	Floor level	
H	Outlet centreline level	

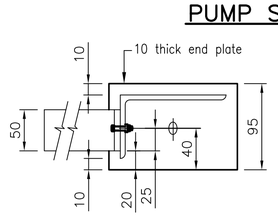
SCHEDULE OF PIPES & FITTINGS			
Item	Minimum Dia ◪	Description	No. Off
P1	100	DICL Straight Pipe (fl x fl) length to suit	As Required
P2	100	90° DI bend (fl x fl)	2
P3	100	DICL Straight Pipe (fl x fl) length to suit tapped 15 BSP	2
P4	100	CI Reflux Valve (fl x fl) Class 14	2
P5	100	CI Sluice Valve (fl x fl) Class 14 with hand wheel	4
P6	100	DICL Straight Pipe (fl x sp) length to suit	1
P7	100x100	DI Tee (fl x fl)	4
P8	100	DI Blank Flange	1
P9	100	DICL Straight Pipe (fl x fl) 1000 long	1
P10	100	CI Sluice Valve (fl – fl) with male cam–lock coupling	1
S1	225	DI connector (250 OD – 259 OD (so x so))	1
S2	225	DICL pipe (fl x sp) 550 long, thrust fl 250 from flanged end	1
S3	225	fl – fl knife gate valve	1

NOTE TO DESIGNERS:
This drawing shows general Pump Station details. Specific Pump Station details such as incoming sewer diameter, overflow location, level and diameter, discharge pipework diameter, rising main diameter and orientation, workings levels etc. are to be added to suit site parameters.

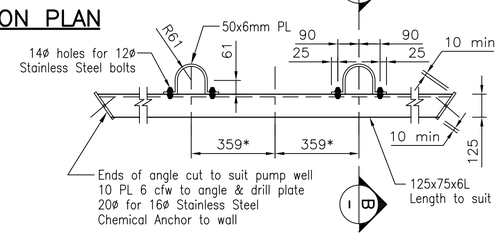
Refer to Council Standard Electrical Specification for switchboard details and drawings.



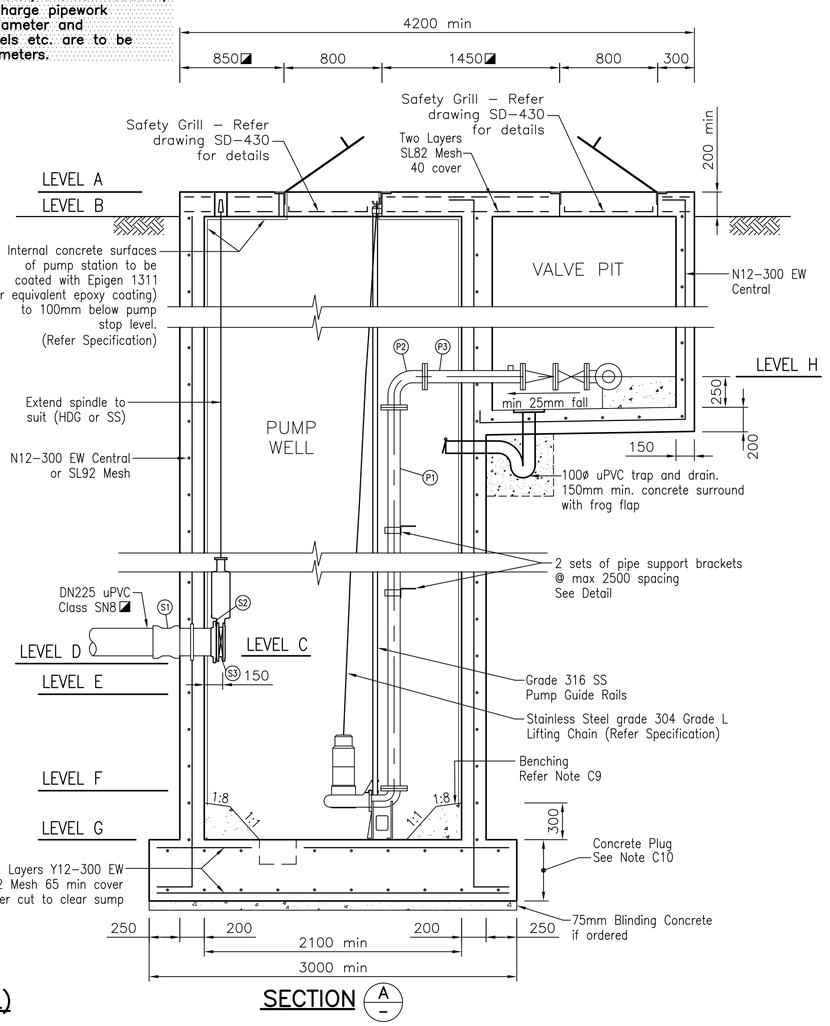
PUMP STATION PLAN



SECTION B–B



PIPE SUPPORT (GRADE 316 STAINLESS STEEL)



SECTION A–A

NOTES

GENERAL

G1. All dimensions to be checked by the Contractor before construction.
G2. Workmanship and materials shall be in accordance with the relevant current SAA codes including all amendments, and the requirements of the relevant Statutory Authorities.
G3. All dimensions are in millimetres unless noted otherwise.
G4. All dimensions marked thus ◪ to be confirmed to suit the pumps, pipework and control equipment to be installed.
G5. Cylindrical section of station may be constructed as a caisson subject to approval of design provided by Contractor. Pre–cast walls are not acceptable
G6. Minimum fall of 25mm to be provided from all corners of valve pit to the drain.
G7. Cable conduits to be cast in as shown to suit the pumps etc. to be installed. Conduits to terminate 50mm above finished surface level.
G8. Straight pipes to be cement lined internally and epoxy coated externally. Valves and fittings to be coated internally and externally with fusion bonded nylon or epoxy. Refer Specification.
G9. Ladder as specified to conform to AS1657, AS1650 and AS/NZS 3500.2;2003
G10. If pump station to be located in road reserve then lid to be structurally designed to account for potential vehicle loads.

FOUNDATIONS

F1. All excavations to be inspected and approved by Superintendent before concrete is placed.

CONCRETE

C1. Minimum clear cover (mm) as found on site to all reinforcement to be as shown on drawings.
C2. No holes, chases or embedment of pipes other than those shown on the drawings to be made in concrete members without prior approval of the Superintendent.
C3. Construction joints to be properly formed and used only where shown or specifically approved by the Superintendent.
C4. Exposed edges to be chamfered 20mm.
C5. Concrete components and quality to be as follows:

Element	F'c MPa	Slump	Max Aggregate
All	N32	80mm	20mm

C6. Curing (a) Initial Curing – commence curing immediately after finishing. Keep concrete continuously wet by ponding or continuous spraying for 2 days.
(b) Final Curing – prevent concrete from drying out for a further 14 days.
C7. A 75mm thick blinding course of grade N15 concrete to be provided below base level if directed by Superintendent.
C8. Cored holes to be infilled with approved non–shrink mortar after installation of pipework.
C9. The extent of concrete benching is to be as directed by the Superintendent to suit pumps to be installed.
C10. Concrete Plug Thickness
Plug thickness as follows: (but subject to bouyancy assessment by designer)

Wall Depth (m)	Plug Thickness (mm)
3.0	300
4.0	400
5.0	500
6.0	600
7.0	700

REINFORCEMENT

R1. Reinforcement is represented diagrammatically and not necessarily shown in true projection.
R2. Splices in reinforcement to be made only in the positions shown or as otherwise approved by the Superintendent. Where unscheduled laps are authorised in bars 20mm or less in diameter the bars are to be lapped the following diameters:
R10 65
N Grade 50
Laps in mesh to be spacing of transverse wires plus 25mm unless otherwise shown.
R3. Welding of reinforcement is not to be performed without the approval of the Superintendent.
R4. All reinforcement to be supported in its correct position during concreting by approved bar chairs, spacers or support bars.
R5. Reinforcement symbols:
R Grade 230 plain round bar to AS1302
SL Hard drawn steel wire reinforcing mesh to AS1304
N Grade 410 deformed bar to AS1302
R6. Cogs and hooks to be standard unless shown otherwise.
R7. Reinforcement to be cut or bent to clear cored holes.

No.	DATE	DESCRIPTION	AP'D
B		DESIGN AND NOTES AMENDED	
A		ORIGINAL ISSUE	

REVISIONS

NOTES : SUPERSEDES 10047B AND 10435E

Full Size A1

Not to Scale

DRAWN: DESIGN OFFICE | CHECKED: D. MOSELEY

Design Engineer Approved: Original signed by P. TURL
Date: 26/07/2012

Manager Approved: Original signed by P. MENDIOLEA
Date: 26/07/2012

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SMALL SEWERAGE PUMP STATIONS TYPICAL PLANS, SECTIONS AND DETAILS

STANDARD DRAWING
SEWERAGE
SD–420 | B