

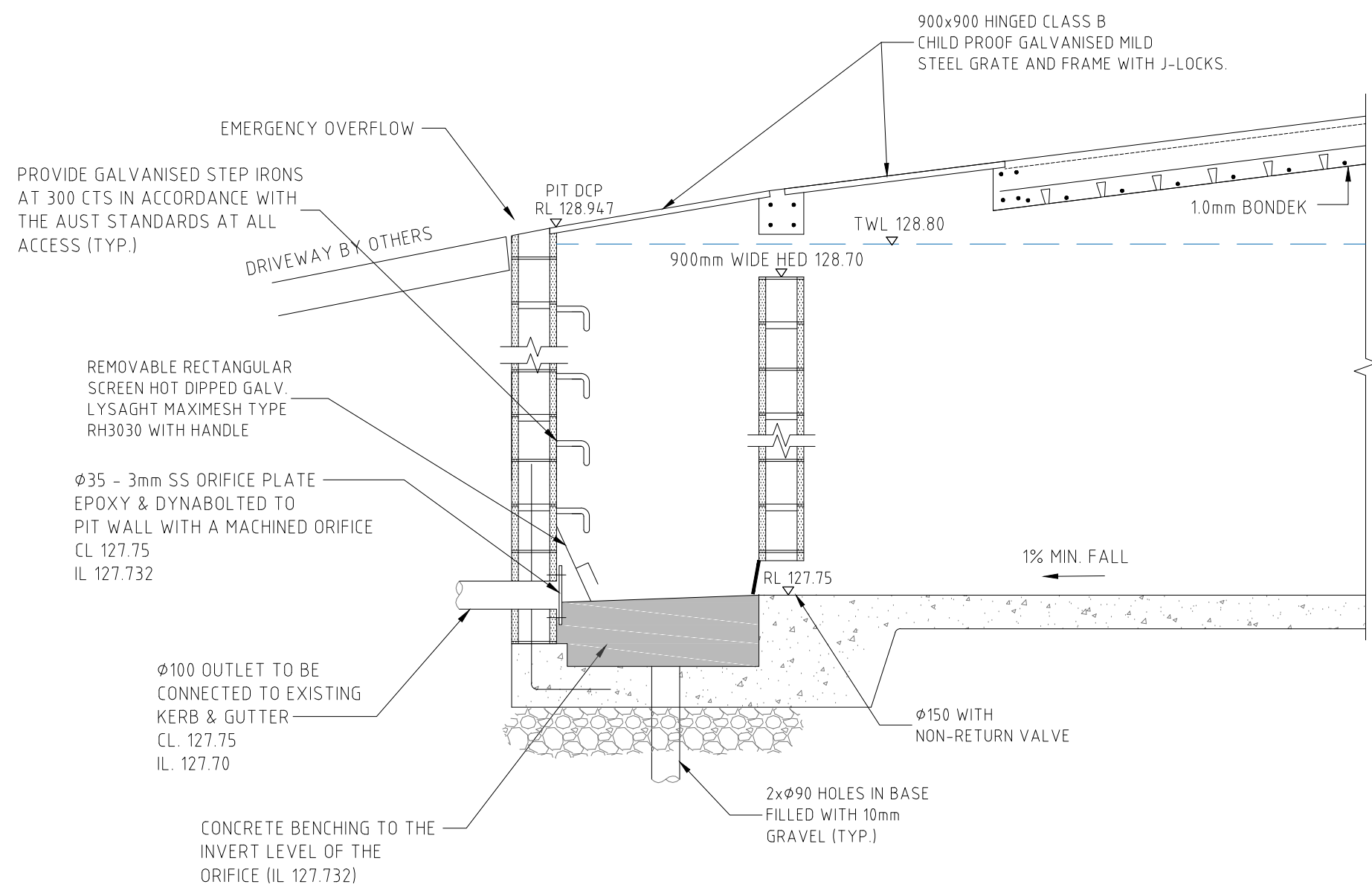
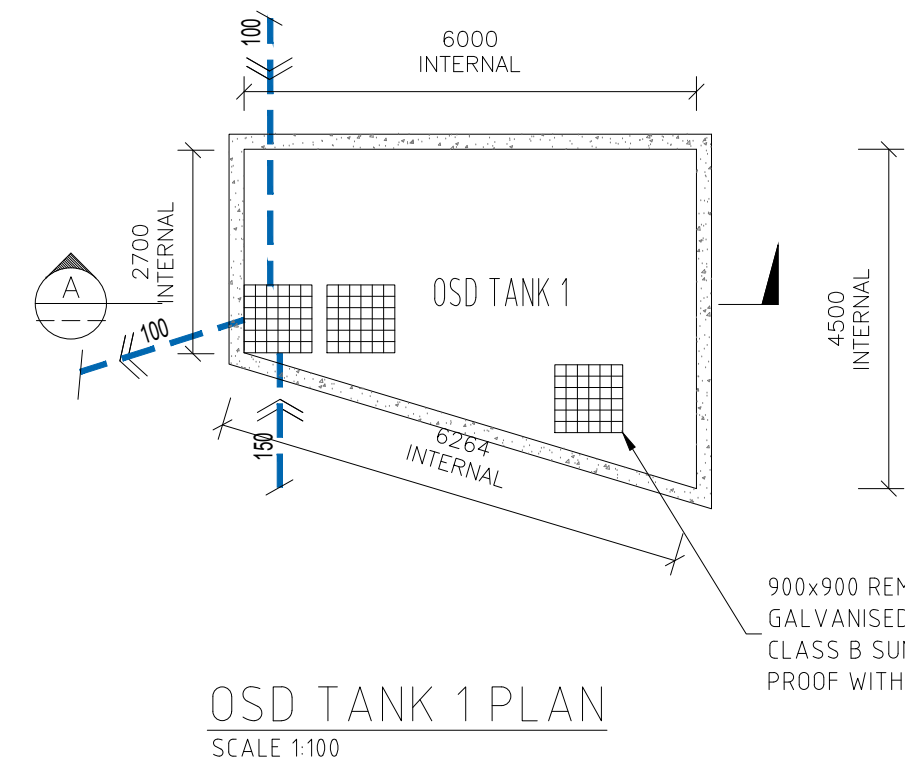
NASTASI & ASSOCIATES CONSULTING CIVIL & STRUCTURAL ENGINEERS			
Project		Residential development	
Site address	Lot 11, [REDACTED]		
Job No	16537		
Phone	(02) 9607 2864		
Catchment	UPRCT		
Site area	0.0439 ha	(A)	SSR 470 m ³ /ha
Basic storage Volume	20.63 m ³	(B)	PSD 80 L/s/ha
Basic discharge	3.51 L/s	(C)	
Site draining to storage	0.0387 ha	(D)	
Percentage of side	88.2 %	(E)	
Storage/hectare of contributing area	533.15 m ³ /ha	(F)	
Adjust PSD	68 L/s/ha	(G)	
PSD for site	2.63 L/s	(H)	
Max head to orifice centre	1.05 m	(K)	
Diameter of orifice	0.035 m	(J)	
Maximum discharge	2.63 L/s	(L)	
Head for high early discharge	0.95 m	(M)	
HED	2.50 L/s	(N)	
HED %	95.1 %		
Mean discharge	2.57 L/s	(P)	
Average Discharge per hectare	66.3 L/s/ha	(Q)	
SSR	543 m ³ /ha	(R)	
Final SSR	21.01 m ³	(S)	
OSD volume provided	22.03 m ³		105%

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Project		Residential development	
Site address	Lot 11, [REDACTED]		
Job No	16537		
Phone	(02) 9607 2864		
Catchment	UPRCT		
Site area	0.0385 ha	(A)	SSR 470 m ³ /ha
Basic storage Volume	18.10 m ³	(B)	PSD 80 L/s/ha
Basic discharge	3.08 L/s	(C)	
Site draining to storage	0.0349 ha	(D)	
Percentage of side	90.6 %	(E)	
Storage/hectare of contributing area	518.62 m ³ /ha	(F)	
Adjust PSD	71 L/s/ha	(G)	
PSD for site	2.46 L/s	(H)	
Max head to orifice centre	0.96 m	(K)	
Diameter of orifice	0.034 m	(J)	
Maximum discharge	2.46 L/s	(L)	
Head for high early discharge	0.86 m	(M)	
HED	2.33 L/s	(N)	
HED %	94.6 %		
Mean discharge	2.40 L/s	(P)	
Average Discharge per hectare	68.7 L/s/ha	(Q)	
SSR	529 m ³ /ha	(R)	
Final SSR	18.46 m ³	(S)	
OSD volume provided	18.72 m ³		101%



ISSUE FOR CC APPROVAL

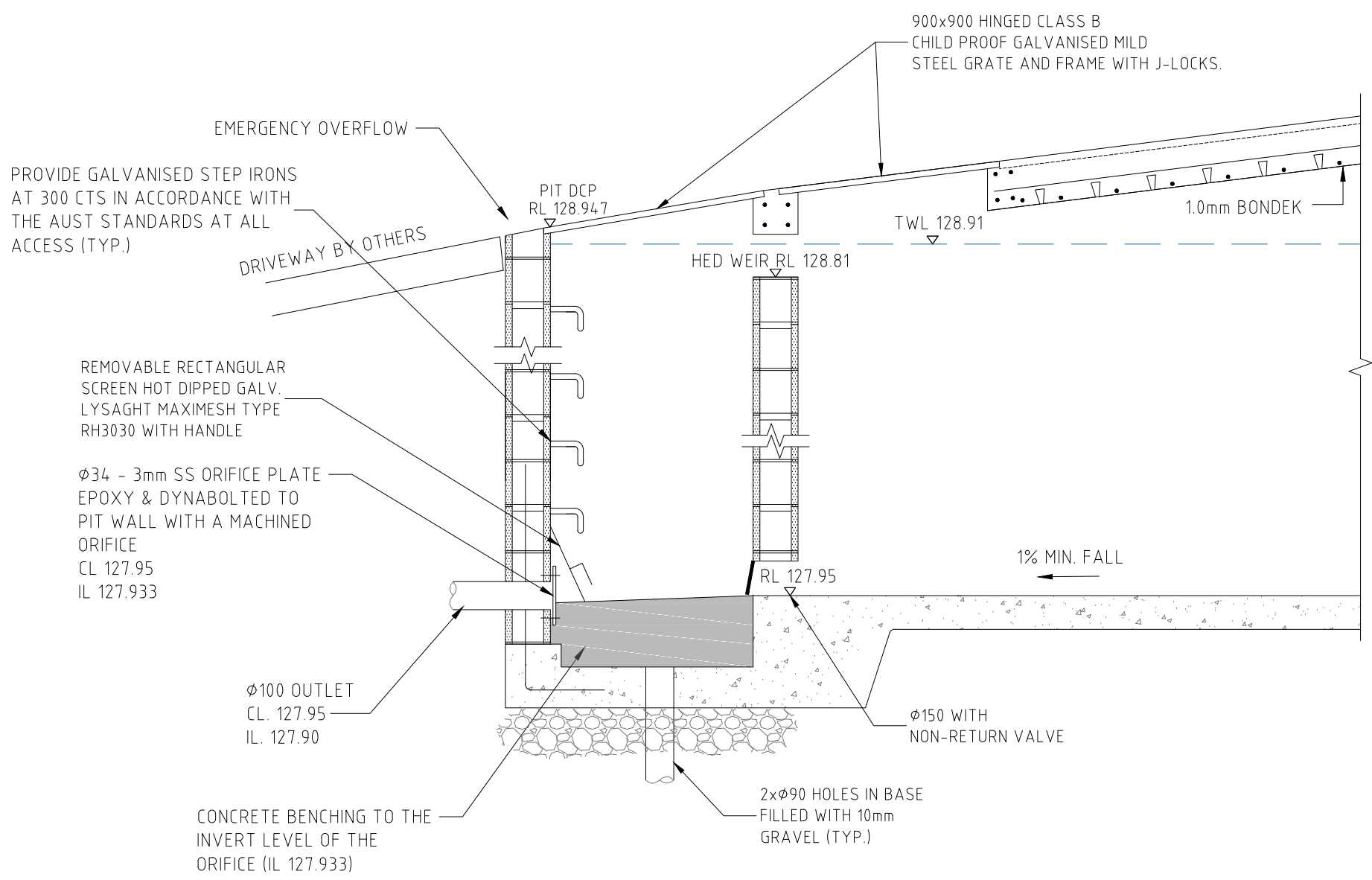
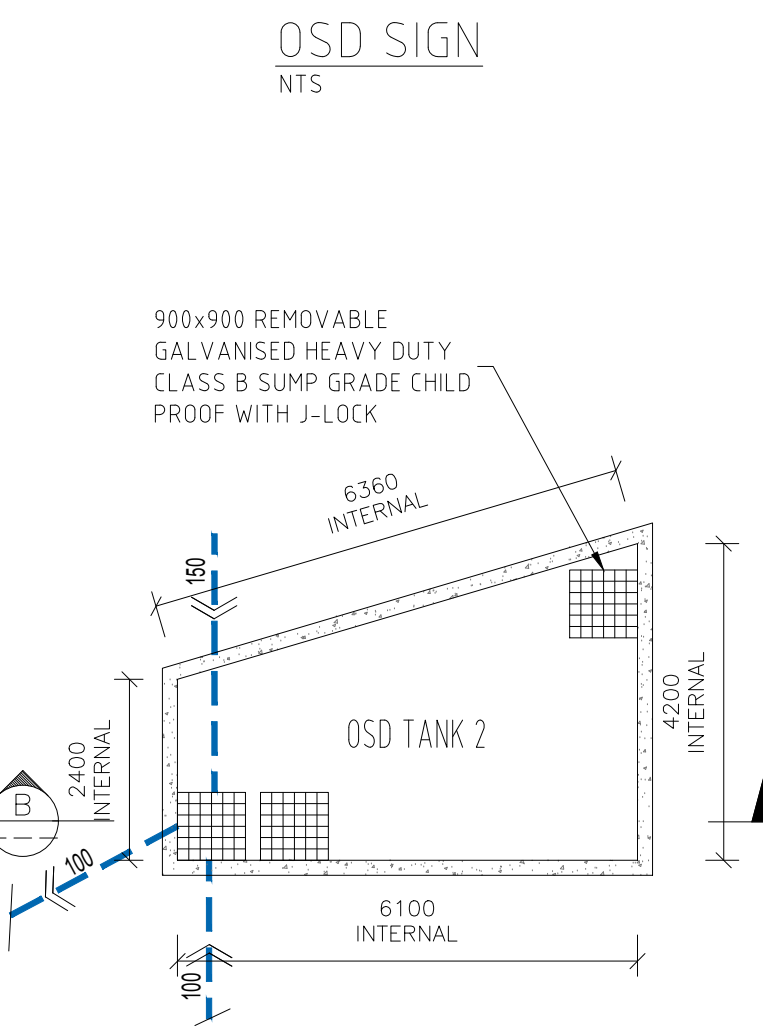
ISSUE	REVISION	DATE	GENERAL NOTES: * THIS DRAWING IS THE COPYRIGHT OF NASTASI & ASSOCIATES CONSULTING CIVIL & STRUCTURAL ENGINEERS, Unit 5, 1-3 Whyalla Place, Prestons, 2170, PO Box 6048, Hammondville, NSW, 2170. * IT IS NOT ALLOWED TO COPY OR REPRODUCE ITS CONTENTS IN ANY FORM EXCEPT FOR THE PURPOSE WHICH IT IS INTENDED WITHOUT THE ABOVE CONSULTANTS' AUTHORITY. * DO NOT SCALE THIS DRAWING. ONLY STATED DIMENSIONS ARE TO BE CONSIDERED. * CONTRACTOR TO VERIFY THE DETAIL / INFORMATION GIVEN IN THIS DRAWING. ANY DISCREPANCIES SHALL BE BROUGHT TO ENGINEERS ATTENTION PRIOR TO COMMENCEMENT OF WORK. FAILURE TO COMPLY WITH THE ABOVE WILL BE CONTRACTORS LIABILITY.	NASTASI & ASSOCIATES CONSULTING CIVIL & STRUCTURAL ENGINEERS B.E., M.I.E. AUST. CPENG NPER-3 ABN 45 633 226 008 UNIT 5, 1-3 WHYALLA PLACE, PRESTONS NSW 2170 PH: (02) 9607 2864 OR (02) 8798 9617 FAX: (02) 9731 2081 MOB: 0419 041 401	QUALITY CONTROL	APPROVED:	CLIENT:	TITLE:	DRAWING STATUS	
					DRAWN	DATE	PROJECT:	DRAINAGE PLAN	FOR CC APPROVAL	
					DESIGNED	DATE			SCALE (AT ORIGINAL SIZE)	AS NOTED
					CHECKED	DATE			PROJECT NO.	DRAWING NO.



OSD TANK 1 - SECTION A
NTS

THIS IS AN **ON-SITE STORMWATER DETENTION SYSTEM** REQUIRED BY YOUR LOCAL COUNCIL.
IT IS AN OFFENCE TO REDUCE THE VOLUME OF THE TANK OR BASIN OR TO INTERFERE WITH THE ORIFICE PLATE THAT CONTROLS THE OUTFLOW.
THE BASE OF THE OUTLET CONTROL PIT AND THE DEBRIS SCREEN MUST BE CLEANED OF DEBRIS AND SEDIMENT ON A REGULAR BASIS BY THE OWNER.
THIS PLATE MUST NOT BE REMOVED

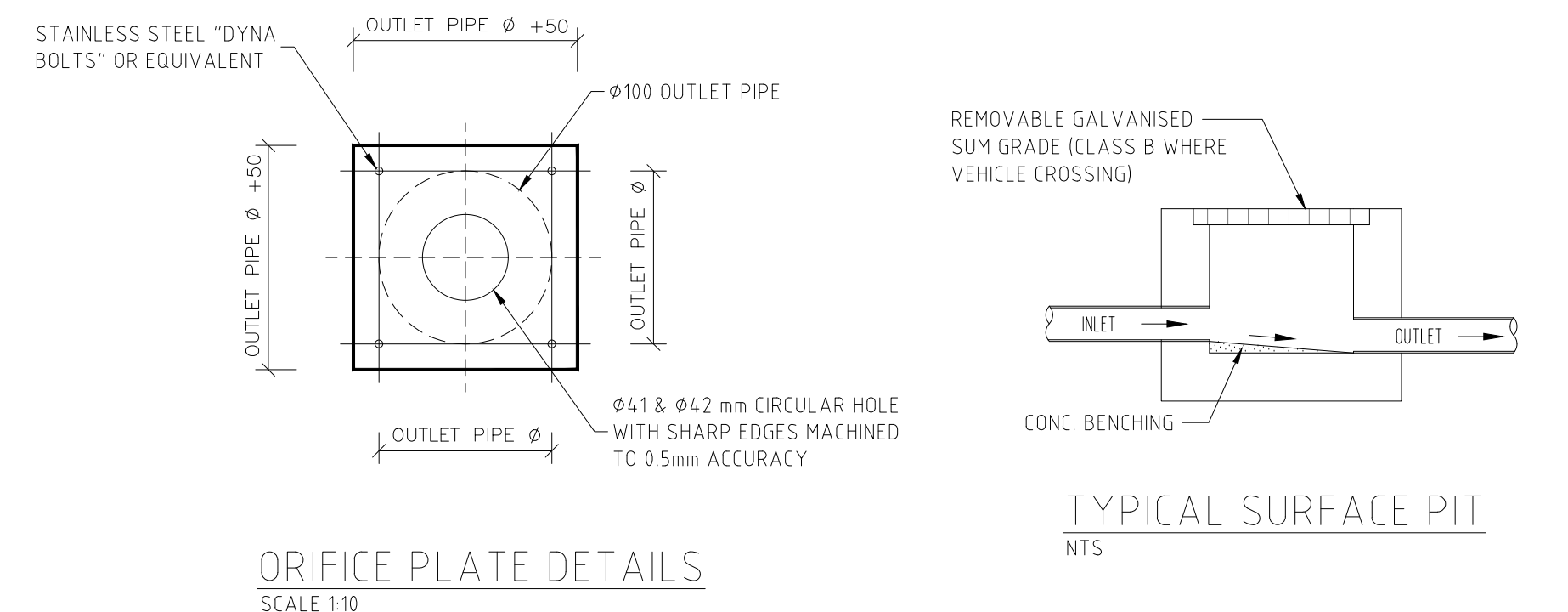
OSD TANK NOTES:
OSD TANK SHALL BE CONCRETE BLOCK WALLS, STARTER BAR AND BONDEK TOP SLAB REFER TO STRUCTURAL PLAN FOR DETAILS.



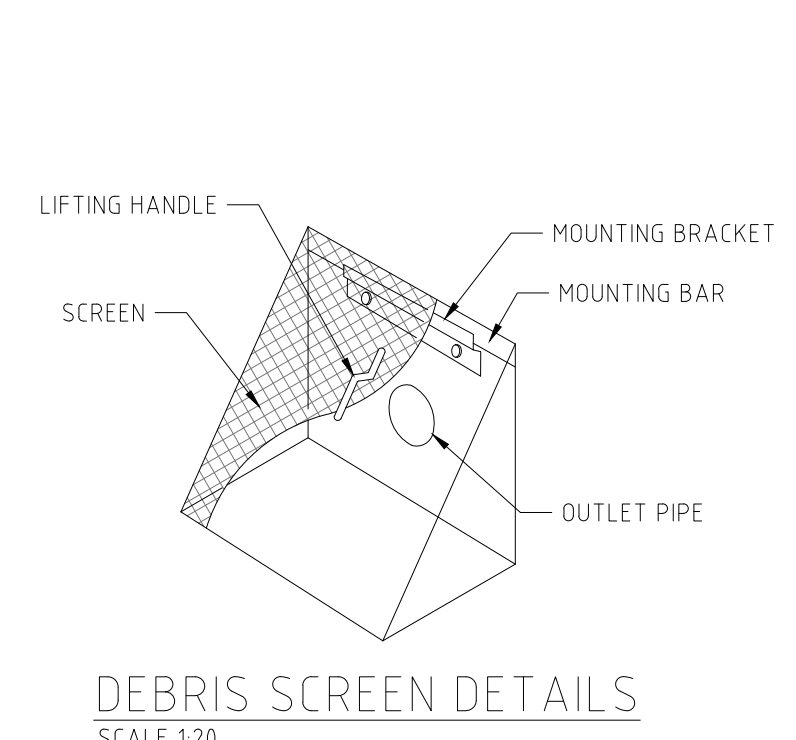
OSD TANK 2 - SECTION B
NTS



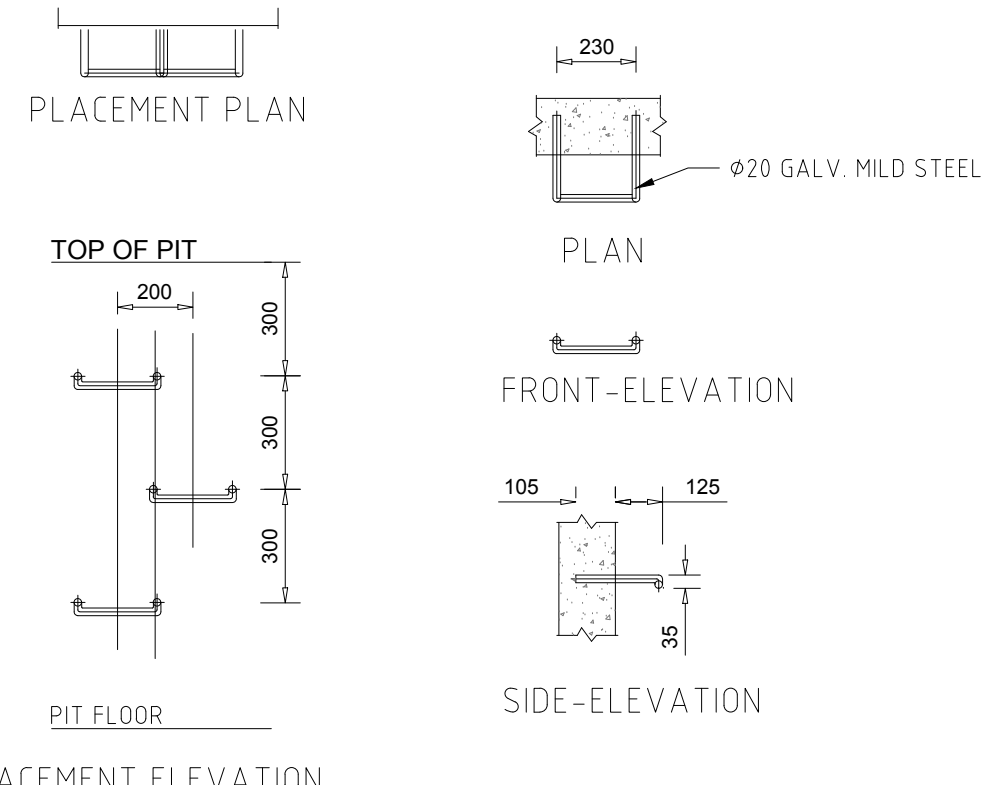
CONFINED SPACE SIGN TO BE PLACED INSIDE OSD TANK
NTS



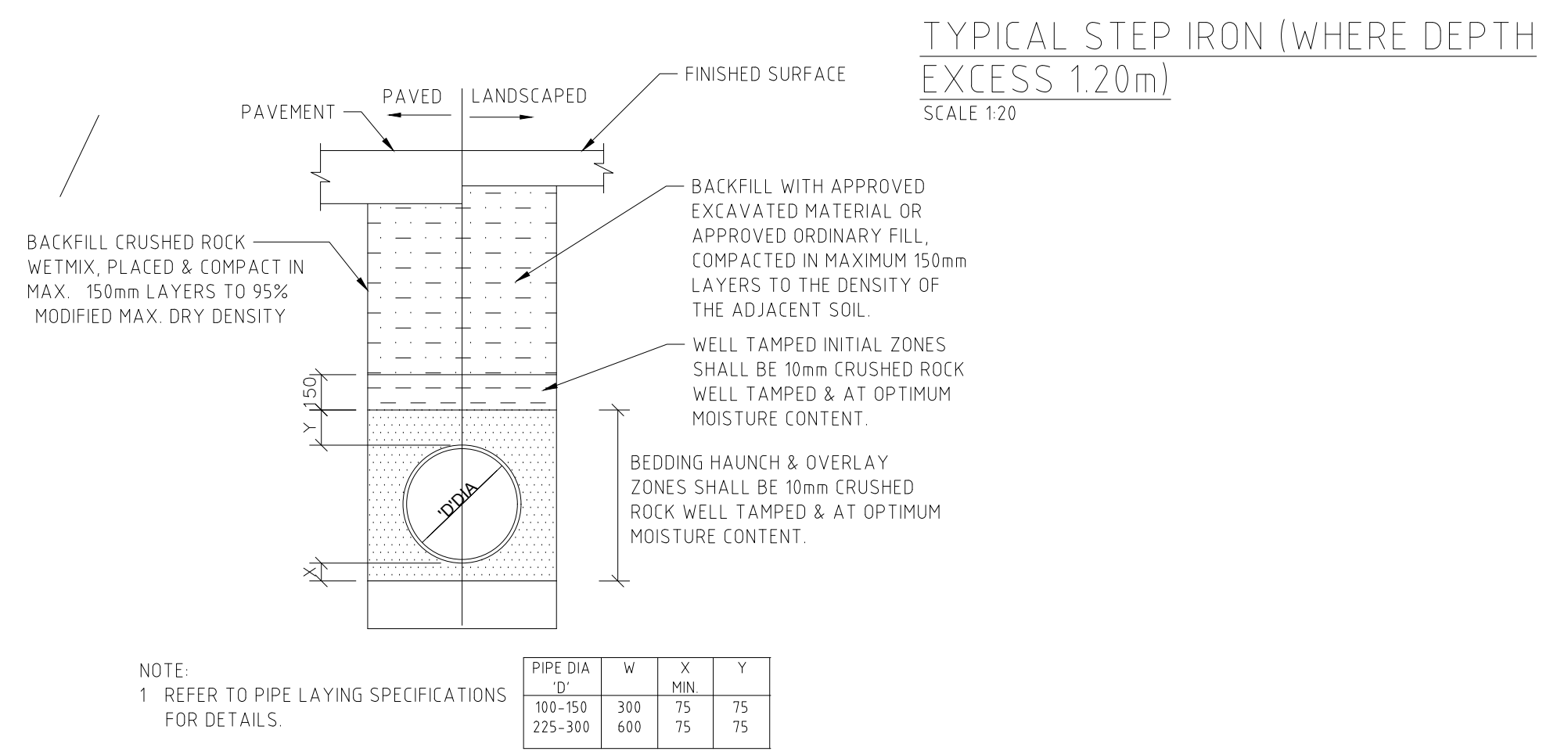
ORIFICE PLATE DETAILS
SCALE 1:10



DEBRIS SCREEN DETAILS
SCALE 1:20

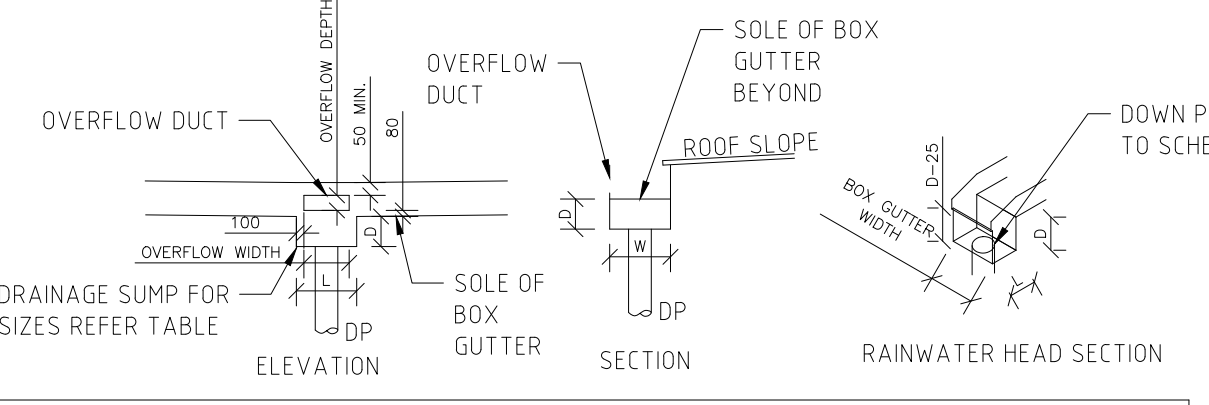


TYPICAL SURFACE PIT
NTS



TYPICAL STEP IRON (WHERE DEPTH EXCESS 1.20m)
SCALE 1:20

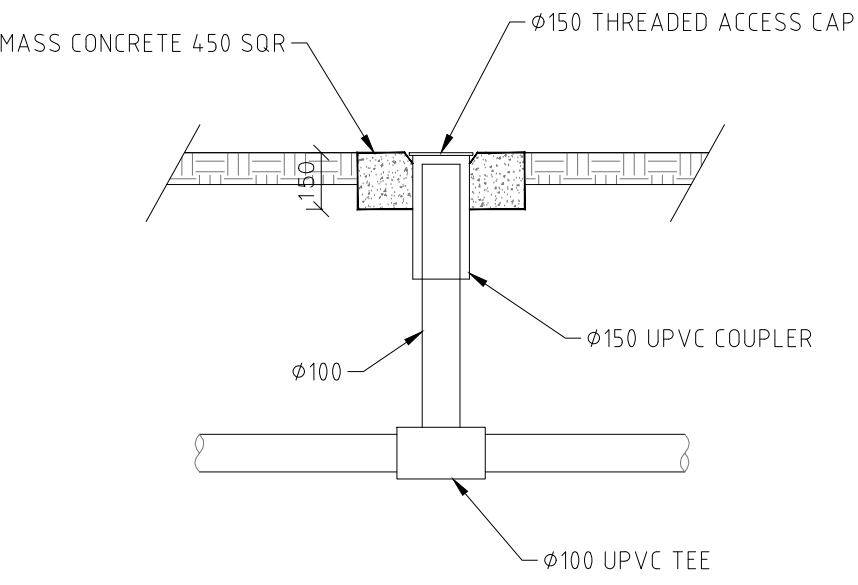
TYPICAL PIPE LAYING DETAIL
NTS



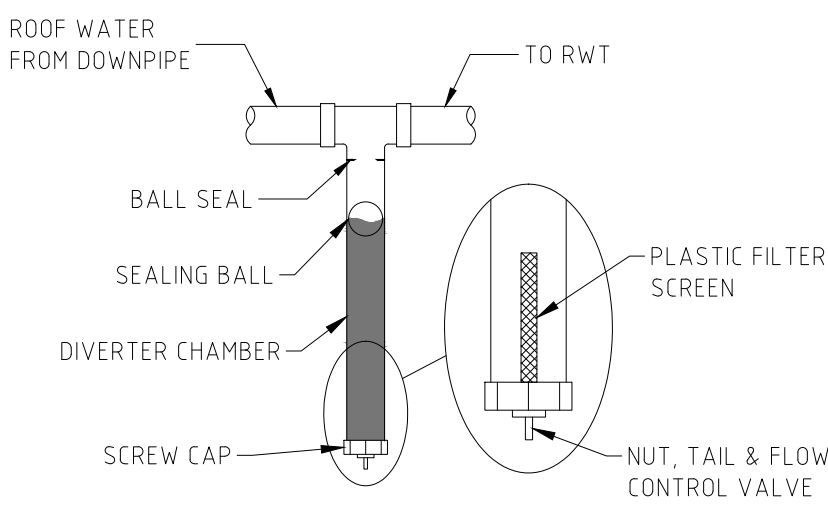
BOX GUTTER, RAINWATER HEAD & SUMP SIZING SCHEDULE

NODE	BOX GUTTER SIZE	RAINWATER HEAD SIZE	SUMP SIZE	OVERFLOW TO SUMP	DOWNPIPE Ø mm
BG1	300 W x 150 D	250 D x 150 W	400 L x 130 D	N/A	100

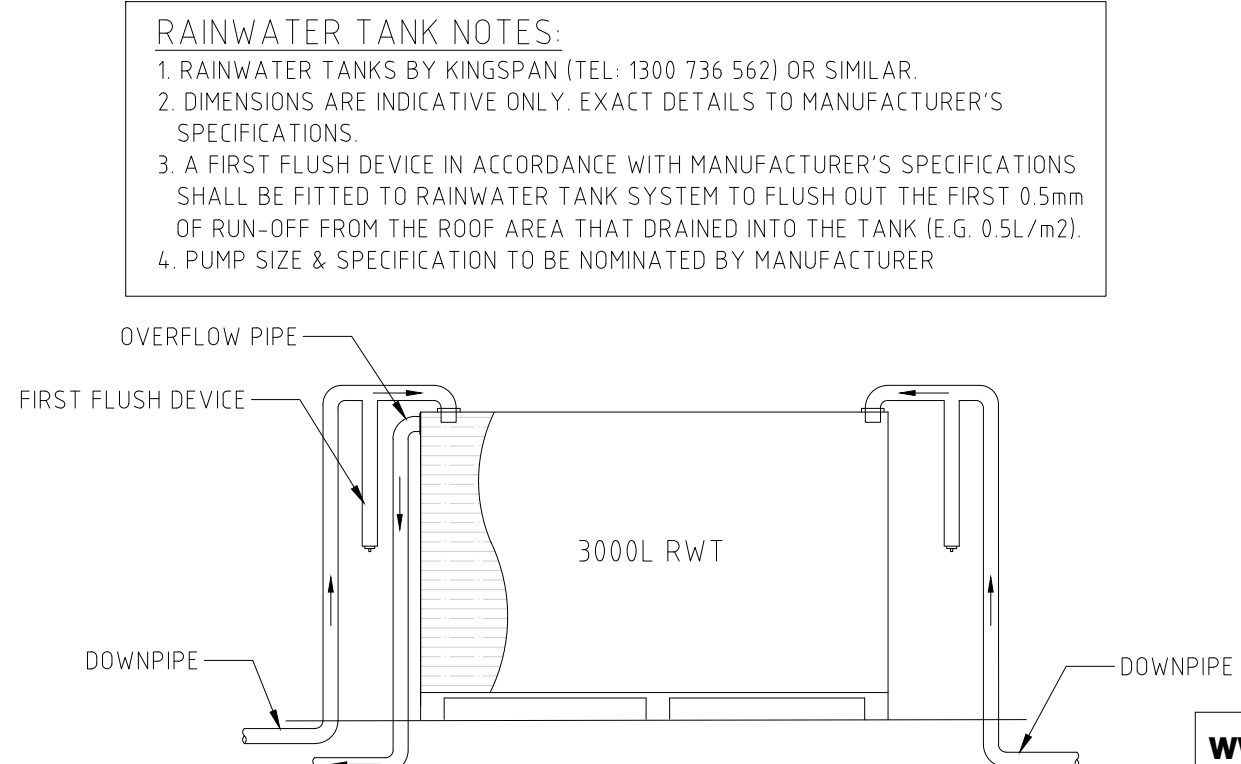
TYPICAL BOX GUTTER DETAILS WITH SUMP OVERFLOW
SCALE 1:20



CLEANING EYE DETAILS
SCALE 1:20

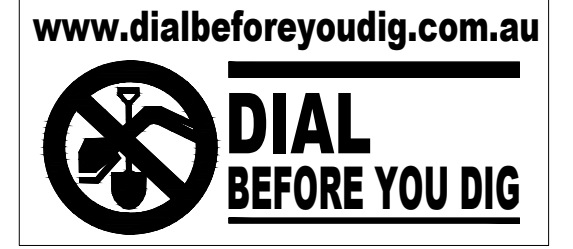


FIRST FLUSH DEVICE DETAIL
1:20



RAINWATER TANK DETAIL
NTS

RAINWATER TANK NOTES:
1. RAINWATER TANKS BY KINGSPAN (TEL: 1300 736 562) OR SIMILAR.
2. DIMENSIONS ARE INDICATIVE ONLY. EXACT DETAILS TO MANUFACTURER'S SPECIFICATIONS.
3. A FIRST FLUSH DEVICE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS SHALL BE FITTED TO RAINWATER TANK SYSTEM TO FLUSH OUT THE FIRST 0.5mm OF RUN-OFF FROM THE ROOF AREA THAT DRAINED INTO THE TANK (E.G. 0.5L/m2).
4. PUMP SIZE & SPECIFICATION TO BE NOMINATED BY MANUFACTURER



REFERENCE COORDINATION DRAWING

DISCIPLINE	DRAWING TITLE AND NUMBER	DATE	REV.	DRAWING TITLE AND NUMBER	DATE	REV.
ARCH.				FIRE		
STRUCT.				LANDS		
MECH.				CIVIL		
ELEC.				SURVEY		
HYD.						

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QUALITY CONTROL

DRAWN	DATE
DESIGNED	DATE
CHECKED	DATE

APPROVED:

CLIENT:
PROJECT:

TITLE:
OSD SYSTEM PLAN & DETAILS

DRAWING STATUS: **FOR CC APPROVAL**

SCALE (AT ORIGINAL SIZE)	AS NOTED	
PROJECT NO.	DRAWING NO.	REVISION NO.
	C3	