

DETAIL PLAN - GROUND FLOOR

SCALE: 1:200



SCALE 1:200

LEGEND

- E --- E --- EXISTING ELECTRICAL LINE OVERHEAD
- G --- G --- EXISTING GAS LINE
- T --- T --- EXISTING TELSTRA LINES
- W --- W --- EXISTING WATER LINE
- RW --- RW --- PROPOSED RETAINING WALL
- >--- FALL ARROWS
- --- LINE OF BASEMENT UNDER
- o VD PROPOSED VERTICAL DROPPER
- o RWO RAINWATER OUTLET
- SS --- SS --- EXISTING BOUNDARY
- --- PROPOSED SUBSOIL LINE
- o o o o PROPOSED JUNCTION PITS
- o o o o PROPOSED SURFACE INLET PITS
- o A-1 LINE LETTER
- o PIT NUMBER
- 40 125 --- STORMWATER UPSTREAM INVERT RL
- 0425RCP --- STORMWATER PIPE DIAMETER & CLASS
- 20 450m --- STORMWATER PIPE LENGTH
- 1.5% --- STORMWATER PIPE GRADE
- 39.818 --- STORMWATER DOWNSTREAM INVERT RL
- --- PROPOSED GRATED DRAIN
- --- PROPOSED STORMWATER PIPE
- 23.58 --- EXISTING CONTOURS
- 24.10 --- PROPOSED CONTOURS
- RL 24.12 --- PROPOSED SPOT LEVEL
- 23.80 --- EXISTING SPOT LEVEL
- --- EXISTING STORMWATER PIPE

FOR DA ONLY

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
03	ISSUED FOR DA ONLY	MP	AF	05.12.2022					
02	ISSUED FOR DA ONLY	IK	AF	29.11.2022					
01	ISSUED FOR DA ONLY	MP	NH	25.11.2022					

Client
OPAL HEALTHCARE

Architect
GROUP GSA

This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.

Suite 2.01
828 Pacific Highway
Gordon NSW 2072

Telephone
+61 2 9417 8400

Facsimile
+61 2 9417 8337

Email
email@hhconsult.com.au
Web
www.henryandhymas.com.au



Project
NARWEE PARKLANDS CARE COMMUNITY
59-67 KARNE STREET, NORTH NARWEE, NSW

Drawn
S.Chen

Designed
N.Heazlewood

Date
AUG 2022

Checked
N.Heazlewood

Approved
A.Francis

Scale
Scale @A1
1:200

Revision

Drawing number
22M21_DA_C100

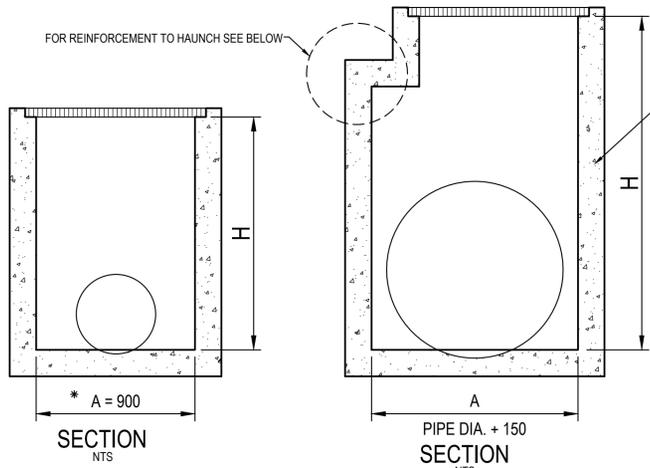
Revision
03

TYPICAL PIT CHAMBER SIZES

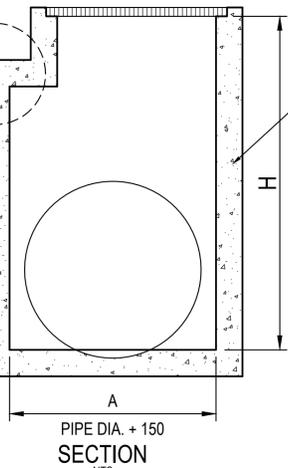
IT IS THE CONTRACTORS RESPONSIBILITY TO SELECT PIT CHAMBER SIZE WITH REGARDS TO PIPE SIZE, DEPTH TO INVERT AND SKEW ANGLE. REFER SKETCHES BELOW.

- SELECT PIT CHAMBER USING THE STEPS BELOW.
- SELECT PIT CHAMBER SIZE DEPENDING ON THE PIPE DIAMETERS.
- CHECK PIT CHAMBER SIZE TO SATISFY DEPTH TO INVERT REQUIREMENTS.
- CHECK PIT CHAMBER DIMENSIONS TO SATISFY THE SKEW ANGLE IN THE TABLE.

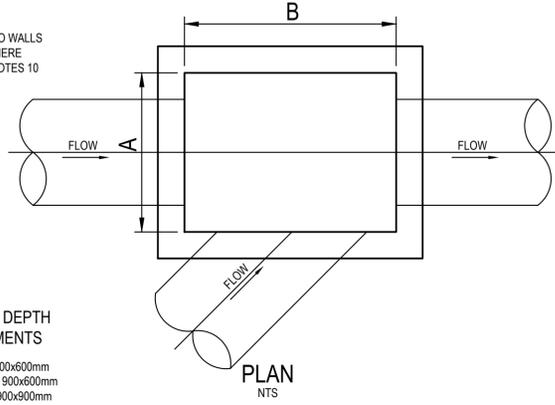
FOR B = 600mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 225mm
 FOR B = 900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 375mm
 FOR B = 1200mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 600mm
 FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
 FOR B = 1900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm



1 PIT CHAMBER DIMENSIONS FOR PIPES UP TO 600 DIA.



2 PIT SIZE & DEPTH REQUIREMENTS



3 PIT CHAMBER FOR SIDE ENTRY ON SKEW

SIEVE SIZE (MM)	WEIGHT PASISNG (%)
75.0	100
9.5	100 TO 50
2.36	100 TO 30
0.60	50 TO 15
0.075	25 TO 0

SIEVE SIZE (MM)	WEIGHT PASISNG (%)
19.0	100
2.36	100 TO 50
0.60	90 TO 20
0.30	60 TO 10
0.15	25 TO 0
0.075	10 TO 0

SUPPORT TYPE	BED ZONE X	HAUNCH ZONE Y	BED AND HAUNCH ZONES COMPACTION	MAX BEDDING FACTOR
HS1		0.1D	50	2.0
HS2	100 IF D<=1500, OR 150 IF D>=1500	0.3D	60	2.5
HS3		0.3D	70	4.0

PIT LID SCHEDULE

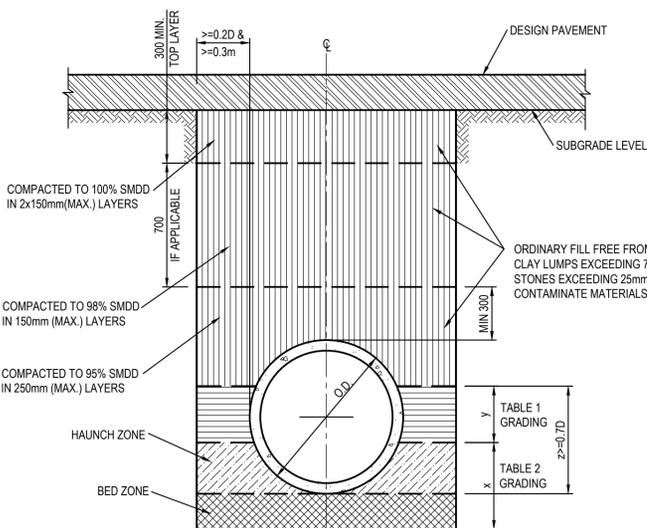
PIT/STRUCTURE NUMBER	DESCRIPTION
A-1, A-2, A-3, A-4	PROPOSED INLET PIT WITH 900x900 HINGED LIGHT DUTY GRATED LID CLASS "B" WITHIN OSD TANK IN ACCORDANCE WITH CANTERBURY BANKSTOWN COUNCIL REQUIREMENT.
A-6, B-1, B-2, B-3, B-4	PROPOSED INLET PIT WITH 900x900 HINGED LIGHT DUTY GRATED LID CLASS "B" IN ACCORDANCE WITH CANTERBURY BANKSTOWN COUNCIL REQUIREMENT.
C-1, C-2, C-3, C-4, B-1, B-2, B-3, B-4, B-5, B-6, B-7, B-8, B-9, A-5, A-6, A-7, E-1, E-2, E-3, E-4, E-5	PROPOSED INLET PIT WITH 600x600 HINGED LIGHT DUTY GRATED LID CLASS "B" IN ACCORDANCE WITH CANTERBURY BANKSTOWN COUNCIL REQUIREMENT.
SD-1, SD-3, SD-4	PROPOSED 225mm WIDE LIGHT DUTY GRATED DRAIN CLASS "B" IN ACCORDANCE WITH CANTERBURY BANKSTOWN COUNCIL REQUIREMENT.
B-10	PROPOSED JUNCTION PIT WITH 900x900 LIGHT DUTY SEALED LID CLASS "B", IN ACCORDANCE WITH CANTERBURY BANKSTOWN COUNCIL REQUIREMENT.
D-2	PROPOSED INLET PIT WITH 900x900 HINGED LIGHT DUTY GRATED LID CLASS "C" IN ACCORDANCE WITH CANTERBURY BANKSTOWN COUNCIL REQUIREMENT.
D-1	PROPOSED JUNCTION PIT WITH 900x900 HEAVY DUTY SEALED LID CLASS "D", IN ACCORDANCE WITH CANTERBURY BANKSTOWN COUNCIL REQUIREMENT.
SD-2	PROPOSED 1.2m GRATED DRAIN.
EX-1	EXISTING KERB INLET PIT.

NOTE:

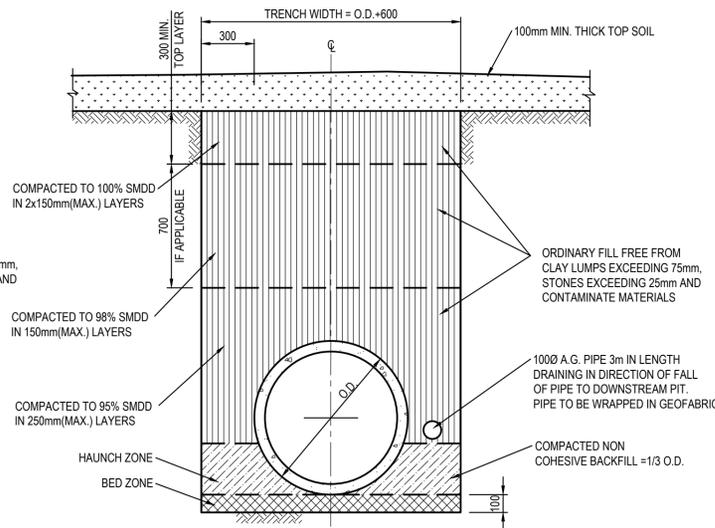
OCEANGUARD PIT BASKET TO BE INSTALLED IN ALL GRATED INLET PITS FOR WATER QUALITY PURPOSES.

DRAINAGE NOTES:

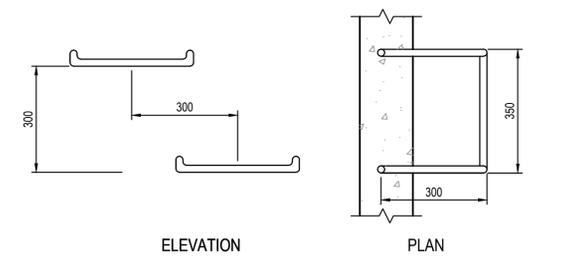
- ALL STORMWATER WORK TO COMPLY WITH AS 3500 PART 3.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE MINIMUM COVER OF 600mm ON ALL PIPES.
- PROTECTION OF PIPES DUE TO LOADS EXCEEDING W7 WHEEL LOAD SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS. REFER TO THIS DRAWING FOR DETAILS.
- MINIMUM COVER OVER EXISTING PIPES FOR PROTECTION DURING CONSTRUCTION SHALL BE 800mm.
- NO CONSTRUCTION LOADS SHALL BE APPLIED TO PLASTIC PIPES.
- FINISHED SURFACE LEVELS SHOWN ON LAYOUT PLAN DRGS TAKE PRECEDENCE OVER DESIGN DRAINAGE SURFACE LEVELS.
- ALL PIPES UP TO AND INCLUDING 300 DIA. SHALL BE SOLVENT OR RUBBER RING JOINTED PVC CLASS SH PIPE TO AS1260. ALL OTHER PIPES TO BE RCP USING CLASS 2 RUBBER RING JOINTED PIPE. HARDIES FRC PIPE MAY BE USED IN LIEU OF RCP IF DESIRED IN GROUND. ALL AERIAL PIPES TO BE PVC CLASS SH.
- ALL PITS IN NON TRAFFICABLE AREAS TO BE PREFABRICATED POLYESTER CONCRETE "POLYCRETE" WITH "LIGHT DUTY" CLASS B GALV. MILD STEEL GRATING AND FRAME. ALL PITS IN TRAFFICABLE AREAS (CLASS "D" LOADING MAX) TO HAVE 150mm THICK CONCRETE WALLS AND BASE CAST IN-SITU $f_c=32$ MPa, REINFORCED WITH N12-200 BOTH LOADING WAYS CENTRALLY PLACE U.N.O. ON SEPARATE DESIGN DRAWINGS IN THIS SET. GALV MILD STEEL GRATING AND FRAME TO SUIT DESIGN LOADING. PRECAST PITS, RECTANGULAR OR CIRCULAR IN SHAPE, MAY BE USED IN LIEU AND SHALL COMPLY WITH RELEVANT AUSTRALIAN STANDARDS.
- ALL PITS, GRATINGS AND FRAMES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND TO BE IN ACCORDANCE WITH AS3500.3 AND AS3996.
- PIT CHAMBER DIMENSIONS ARE TO BE SELECTED TO SATISFY THE FOLLOWING:
 - PIPE SIZE
 - DEPTH TO INVERT
 - SKEW ANGLE
 REFER TYPICAL PIT CHAMBER DETAILS BELOW
 IF PIT LID SIZE IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THE STEP IRONS DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED, IS TO BE THE SAME SIZE AS THE PIT CHAMBER.
- FOR PIPE SIZES GREATER THAN Ø300mm, PIT FLOOR IS TO BE BENCHED TO FACILITATE FLOW.
- GALVANISED STEP IRONS SHALL BE PROVIDED AT 300 CTS FOR PITS HAVING A DEPTH EXCEEDING 1200mm. SUBSOIL DRAINAGE PIPE SHALL BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES. (MINIMUM LENGTH 3m).
- ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED PVC IN A FILTER SOCK, UNO, WITH 3m INSTALLED UPSTREAM OF ALL PITS.
- ALL PIPEWORK SHALL HAVE MINIMUM DIAMETER 100.
- MINIMUM GRADE FOR ROOFWATER DRAINAGE LINES SHALL BE 1%.
- ALL PIPE JUNCTIONS AND TAPER UP TO AND INCLUDING 300 DIA. SHALL BE VIA PURPOSE MADE FITTINGS.
- ALL ROOF DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH AS3500, PART 3. TESTING TO BE UNDERTAKEN AND REPORTS PROVIDED TO THE SUPERINTENDENT.
- LOCATION OF THE DIRECT DOWN PIPE CONNECTIONS MAY VARY ON SITE TO SUIT SITE CONDITIONS, WHERE CONNECTION SHOWN ON LONG SECTIONS CHAINAGES ARE INDICATIVE ONLY.
- PITS IN EXCESS OF 1.5 m DEEP TO HAVE WALL AND FLOOR THICKNESS INCREASED TO 200mm. REINFORCED WITH N12@200 CTS CENTRALLY PLACED BOTH WAYS THROUGHOUT U.N.O. ON SEPARATE DESIGN DRAWINGS IN THIS SET. IF DEPTH EXCEEDS 5m CONTACT ENGINEER.
- SUBSOIL DRAINAGE LINES FOR LANDSCAPE AREA NOT SHOWN ON THESE DRAWINGS. REFER TO LANDSCAPING PLANS FOR DETAILS.
- ALL STORMWATER PITS TO HAVE Ø100 uPVC SLOTTED SUBSOIL PIPES CONNECTED TO THEM. THESE SUBSOILS TO EXTEND 3m UPSTREAM OF THE PIT AT A MINIMUM GRADE.



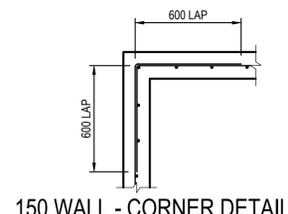
PIPE TRENCH INSTALLATION BENEATH PAVEMENT (HS SUPPORT TO BE USED UNDER ROADWAY) SCALE 1:20



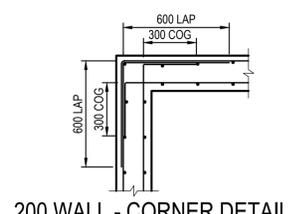
PIPE TRENCH INSTALLATION IN LANDSCAPE AREAS (H1 & H2 SUPPORT) SCALE 1:20



TYPICAL STEP IRON DETAIL SCALE 1:10

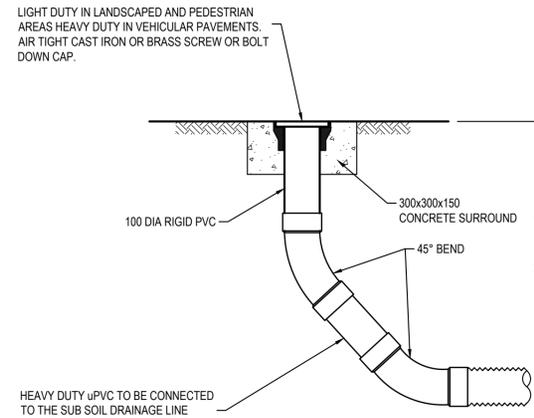


150 WALL - CORNER DETAIL SCALE 1:20



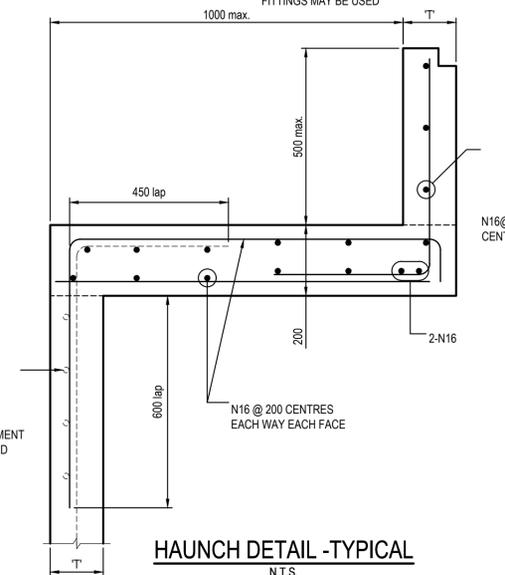
200 WALL - CORNER DETAIL SCALE 1:20

PIT REINFORCEMENT SHOWN DOTTED



FLUSHING POINT (FP) SCALE 1:10

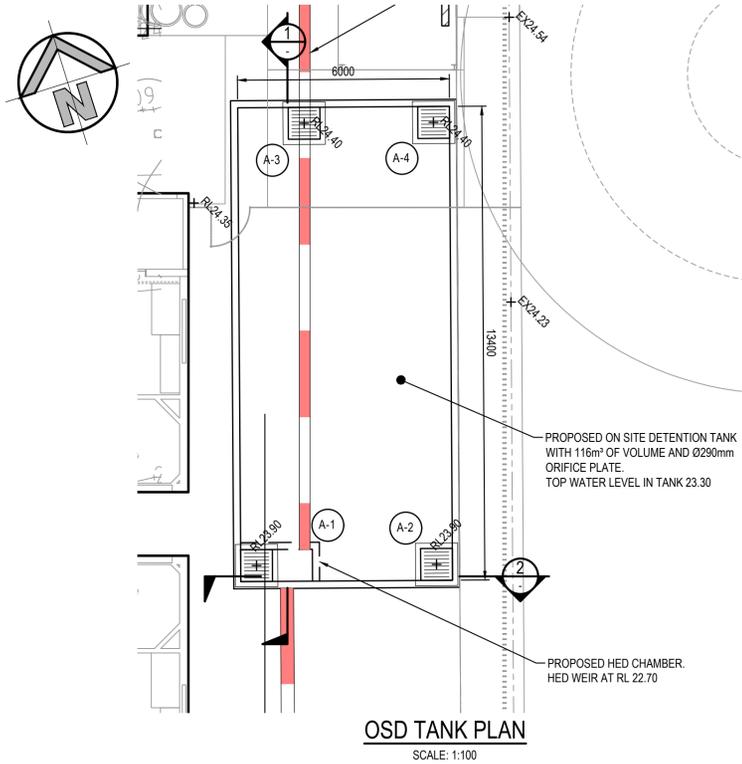
NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



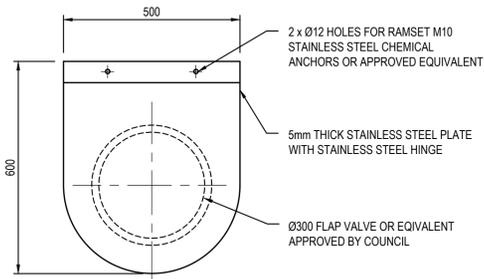
HAUNCH DETAIL - TYPICAL N.T.S.

FOR DA ONLY

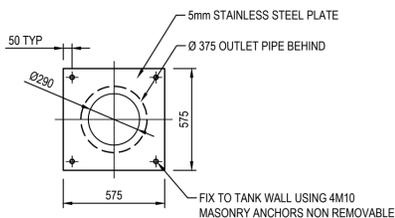
<p>SURVEY INFORMATION SURVEYED BY: VMARK DATUM: AHD ORIGIN OF LEVELS: SSM 108411 RL 27 054</p>	<p>03 ISSUED FOR DA ONLY</p>	<p>MP NH 05.12.2022</p>	<p>Client OPAL HEALTHCARE</p>	<p>Suite 2.01 828 Pacific Highway Gordon NSW 2072</p>	<p>Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hhconsult.com.au Web www.henryandhymas.com.au</p>	<p>Project NARWEE PARKLANDS CARE COMMUNITY 59-67 KARNE STREET, NORTH NARWEE, NSW</p>	<p>Drawn M.Pereira</p>	<p>Designed N.Heazlewood</p>	<p>Date AUG 2022</p>
	<p>02 ISSUED FOR DA ONLY</p>	<p>MB NH 02.12.2022</p>	<p>Architect GROUP GSA</p>	<p>Project STORMWATER MISCELLANEOUS DETAILS AND PIT LID SCHEDULE</p>	<p>Checked N.Heazlewood</p>	<p>Approved A.Francis</p>	<p>Scale @A1</p>	<p>NTS</p>	<p>Revision</p>
<p>01 ISSUED FOR DA ONLY</p>	<p>MP NH 25.11.2022</p>	<p>This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.</p>	<p>Drawing number 22M21_DA_C200</p>	<p>Revision 03</p>					



OSD TANK PLAN
SCALE: 1:100



FLAP VALVE DETAIL
SCALE: 1:10

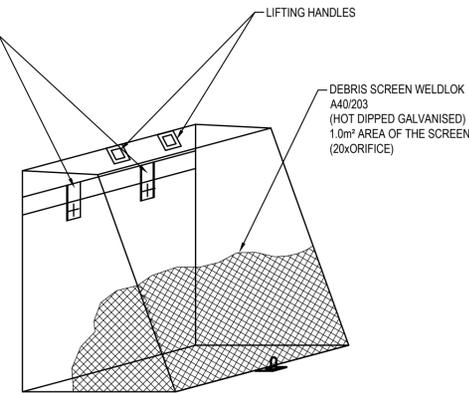


ORIFICE PLATE DETAIL
SCALE: 1:20

100 x 16 MOUNTING BAR WITH BRACKETS. SCREEN TO BE ATTACHED (GENERALLY ON A SLIDING MECHANISM) TO THE WALL, BUT SHOULD BE REMOVABLE (WITHOUT THE USE OF TOOLS) TO PERMIT CLEANSING AND EASY INSPECTION OF THE OUTLET CONTROL. ALL STEEL TO BE HOT DIPPED GALVANISED.

SCREEN TYPE WELDLOK A40/203 IS RECOMMENDED FOR ORIFICES LARGER THAN 150mm AND SCREEN AREA 20 x THE ORIFICE AREA FOR THAT TYPE OF SCREEN - REFER UPRCT SECTION 4-13

MAXIMESH RH3030 IS RECOMMENDED FOR ORIFICES LESS THAN 150mm IN DIAMETER AND SCREEN AREA 50x THE ORIFICE AREA.



DEBRIS SCREEN DETAIL

NOT TO SCALE
ALL STEEL TO BE HOT DIPPED GALVANISED

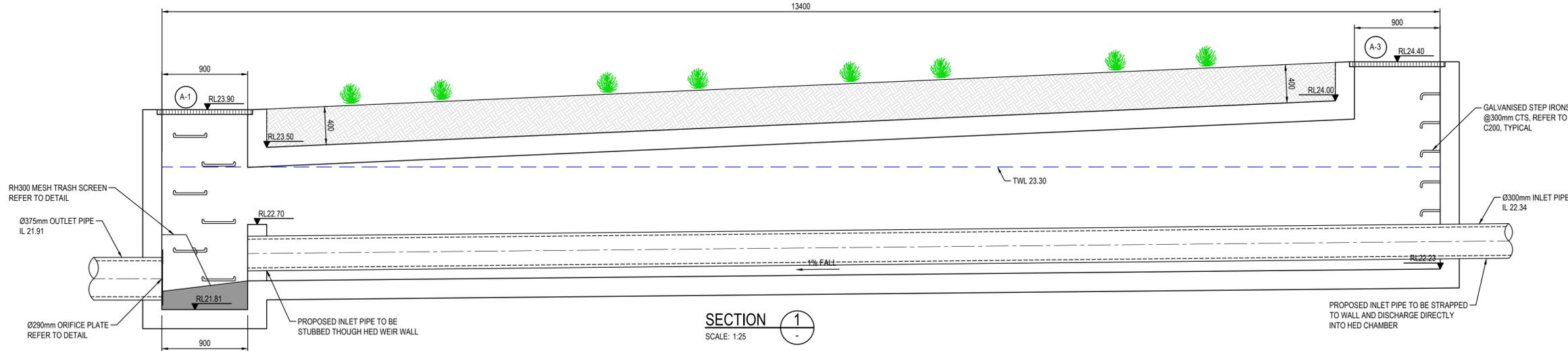


A) A CONFINED SPACE DANGER SIGN SHALL BE POSITIONED IN A LOCATION SUCH THAT IT IS CLEARLY VISIBLE TO PERSONS PROPOSING TO ENTER THE BELOW GROUND TANKS/ CONFINED SPACE AT ALL ACCESS POINTS OF THE TANK/ CONFINED SPACE.

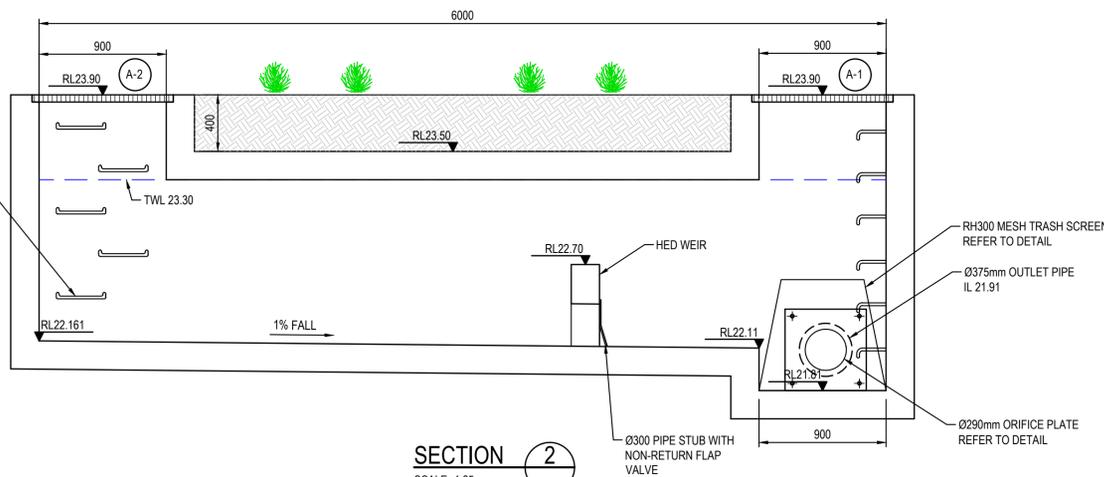
B) SIGN TO BE MINIMUM DIMENSIONS: 250mm x 180mm ENTRIES I.E. GRATES, MANHOLES

C) SIGN SHALL BE MANUFACTURED FROM COLOUR BONDED METAL OR POLYPROPYLENE

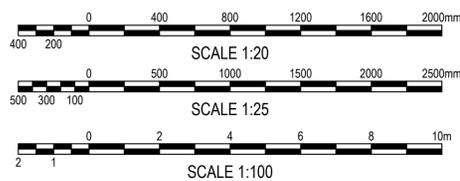
D) SIGN SHALL BE AFFIXED TO A SURFACE WITH SCREWS AT EACH CORNER.



SECTION 1
SCALE: 1:25



SECTION 2
SCALE: 1:25



FOR DA ONLY

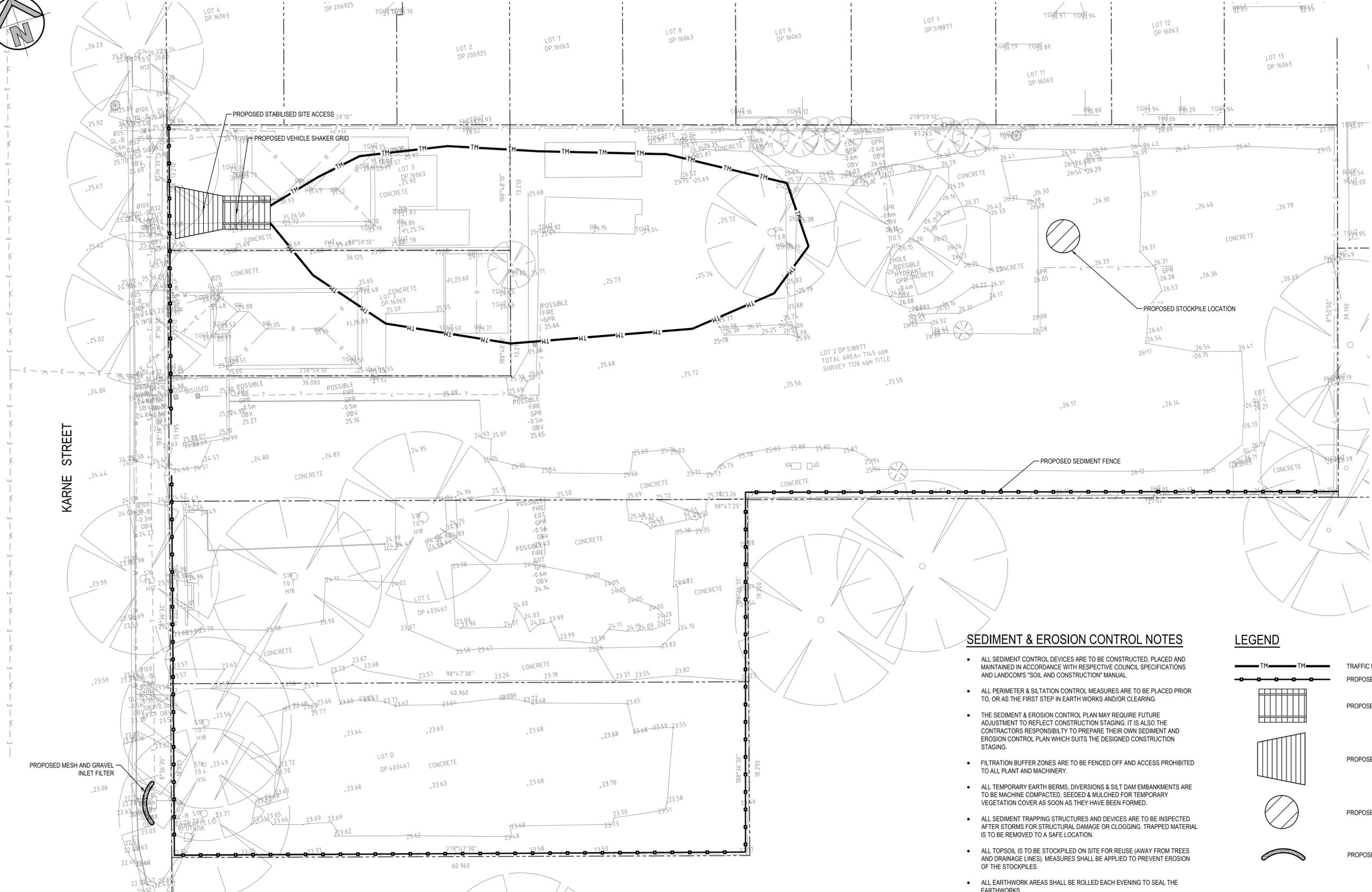
SURVEY INFORMATION		CLIENT		ARCHITECT	
SURVEYED BY: VMARK		OPAL HEALTHCARE		GROUP GSA	
DATUM: AHD		Suite 2.01 828 Pacific Highway Gordon NSW 2072		Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hhconsult.com.au Web www.henryandhymas.com.au	
ORIGIN OF LEVELS: SSM 108411 RL 27.054		Architect		henry&hymas	
REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	
02	ISSUED FOR DA ONLY	MP	NH	05.12.2022	
01	ISSUED FOR DA ONLY	MP	NH	25.11.2022	

This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.



Project		
NARWEE PARKLANDS CARE COMMUNITY 59-67 KARNE STREET, NORTH NARWEE, NSW		
Title OSD PLAN, DETAILS AND SECTIONS		

Drawn	Designed	Date
S.Chen	N.Heazlewood	AUG 2022
Checked	Approved	Scale
N.Heazlewood	A.Francis	Scale B/A1
Drawing number		Revision
22M21_DA_C201		02



SEDIMENT AND EROSION CONTROL PLAN

SCALE: 1:200

SEDIMENT & EROSION CONTROL NOTES

- ALL SEDIMENT CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH RESPECTIVE COUNCIL SPECIFICATIONS AND LANDCOM'S 'SOIL AND CONSTRUCTION' MANUAL.
- ALL PERIMETER & SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN EARTH WORKS AND/OR CLEARING.
- THE SEDIMENT & EROSION CONTROL PLAN MAY REQUIRE FUTURE ADJUSTMENT TO REFLECT CONSTRUCTION STAGING. IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO PREPARE THEIR OWN SEDIMENT AND EROSION CONTROL PLAN WHICH SUITS THE DESIGNED CONSTRUCTION STAGING.
- FILTRATION BUFFER ZONES ARE TO BE FENCED OFF AND ACCESS PROHIBITED TO ALL PLANT AND MACHINERY.
- ALL TEMPORARY EARTH BERMS, DIVERSIONS & SILT DAM EMBANKMENTS ARE TO BE MACHINE COMPACTED, SEEDED & MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
- ALL SEDIMENT TRAPPING STRUCTURES AND DEVICES ARE TO BE INSPECTED AFTER STORMS FOR STRUCTURAL DAMAGE OR CLOGGING. TRAPPED MATERIAL IS TO BE REMOVED TO A SAFE LOCATION.
- ALL TOPSOIL IS TO BE STOCKPILED ON SITE FOR REUSE (AWAY FROM TREES AND DRAINAGE LINES). MEASURES SHALL BE APPLIED TO PREVENT EROSION OF THE STOCKPILES.
- ALL EARTHWORK AREAS SHALL BE ROLLED EACH EVENING TO SEAL THE EARTHWORKS.
- ALL FILLS ARE TO BE LEFT WITH A LIP AT THE TOP OF THE SLOPE AT THE END. ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND STRAW MULCHED WITHIN 14 DAYS OF COMPLETION OF FORMATION U.N.O. BY LANDSCAPE ARCHITECTS.
- UPON COMPLETION OF ALL EARTHWORKS OR AS DIRECTED BY COUNCIL SOIL CONSERVATION TREATMENTS SHALL BE APPLIED SO AS TO RENDER AREAS THAT HAVE BEEN DISTURBED, EROSION PROOF WITHIN 14 DAYS.
- EROSION AND SILT PROTECTION MEASURES ARE TO BE MAINTAINED AT ALL TIMES.

LEGEND

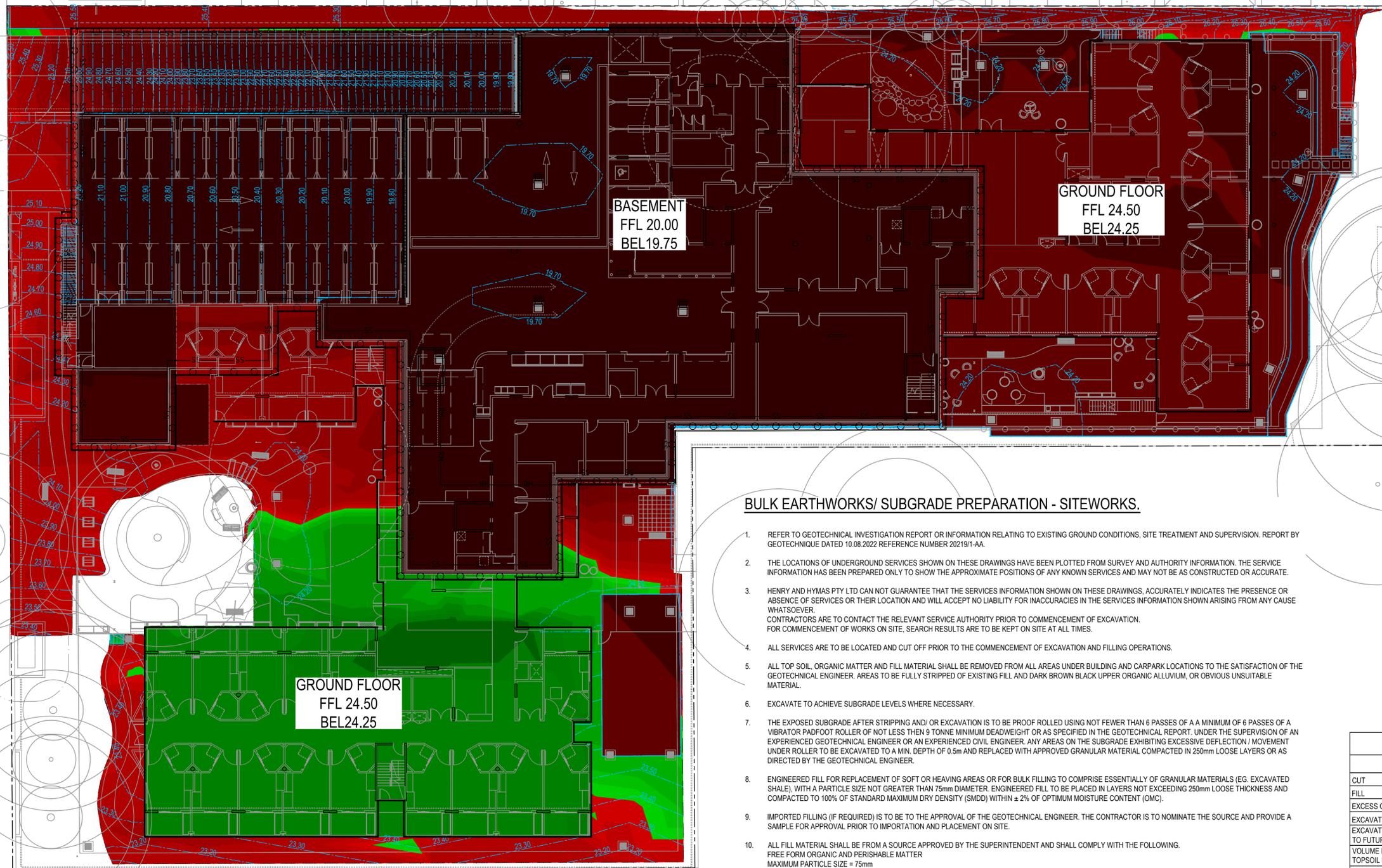
- TRAFFIC MANOEUVRING
- PROPOSED SEDIMENTATION FENCE
- PROPOSED VEHICLE SHAKER GRID
- PROPOSED STABILISED SITE ACCESS
- PROPOSED STOCKPILE LOCATION
- PROPOSED MESH & GRAVEL INLET FILTER

FOR DA ONLY

SURVEY INFORMATION SURVEYED BY: V.MARK DATUM: AHD ORIGIN OF LEVELS: SSM 108411 RL 27.054				Client OPAL HEALTHCARE Architect GROUP GSA				Suite 2.01 828 Pacific Highway Gordon NSW 2072 Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hhconsult.com.au Web www.henryandhymas.com.au		Project NARWEE PARKLANDS CARE COMMUNITY 59-67 KARNE STREET, NORTH NARWEE, NSW Title SEDIMENT AND EROSION CONTROL PLAN		Drawn S.Chen Checked N.Heazlewood Design N.Heazlewood Approved A.Francis Date AUG 2022 Scale @A1 1:200 Drawing number 22M21_DA_SE01 Revision 02	
REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.			
02	ISSUED FOR DA ONLY	MP	NH	06.12.2022									
01	ISSUED FOR DA ONLY	MP	NH	25.11.2022									



KARNE STREET



LEGEND

DEPTH OF CUT & FILL RANGE	LOWER VALUE	UPPER VALUE	COLOUR
-8.00 to -4.00 m	-8.00	-4.00	Dark Brown
-4.00 to -2.00 m	-4.00	-2.00	Dark Red
-2.00 to -1.00 m	-2.00	-1.00	Red
-1.00 to -0.80 m	-1.00	-0.80	Dark Red
-0.80 to -0.60 m	-0.80	-0.60	Red
-0.60 to -0.40 m	-0.60	-0.40	Dark Red
-0.40 to -0.20 m	-0.40	-0.20	Red
-0.20 to -0.10 m	-0.20	-0.10	Dark Red
-0.10 to -0.05 m	-0.10	-0.05	Red
-0.05 to 0.00 m	-0.05	0.00	Dark Red
0.00 to 0.05 m	0.00	0.05	Light Green
0.05 to 0.10 m	0.05	0.10	Light Green
0.10 to 0.20 m	0.10	0.20	Light Green
0.20 to 0.40 m	0.20	0.40	Light Green
0.40 to 0.60 m	0.40	0.60	Light Green
0.60 to 0.80 m	0.60	0.80	Light Green
0.80 to 1.00 m	0.80	1.00	Light Green
1.00 to 2.00 m	1.00	2.00	Light Green
2.00 to 4.00 m	2.00	4.00	Light Green

LEGEND

21.00 CONTOURS BE

BULK EARTHWORKS/ SUBGRADE PREPARATION - SITEWORKS.

- REFER TO GEOTECHNICAL INVESTIGATION REPORT OR INFORMATION RELATING TO EXISTING GROUND CONDITIONS, SITE TREATMENT AND SUPERVISION. REPORT BY GEOTECHNIQUE DATED 10.08.2022 REFERENCE NUMBER 202191-AA.
- THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM SURVEY AND AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE.
- HENRY AND HYMAS PTY LTD CAN NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS, ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN ARISING FROM ANY CAUSE WHATSOEVER. CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION. FOR COMMENCEMENT OF WORKS ON SITE, SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.
- ALL SERVICES ARE TO BE LOCATED AND CUT OFF PRIOR TO THE COMMENCEMENT OF EXCAVATION AND FILLING OPERATIONS.
- ALL TOP SOIL, ORGANIC MATTER AND FILL MATERIAL SHALL BE REMOVED FROM ALL AREAS UNDER BUILDING AND CARPARK LOCATIONS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER. AREAS TO BE FULLY STRIPPED OF EXISTING FILL AND DARK BROWN BLACK UPPER ORGANIC ALLUVIUM, OR OBVIOUS UNSUITABLE MATERIAL.
- EXCAVATE TO ACHIEVE SUBGRADE LEVELS WHERE NECESSARY.
- THE EXPOSED SUBGRADE AFTER STRIPPING AND/ OR EXCAVATION IS TO BE PROOF ROLLED USING NOT FEWER THAN 6 PASSES OF A A MINIMUM OF 6 PASSES OF A VIBRATOR PADFOOT ROLLER OF NOT LESS THAN 9 TONNE MINIMUM DEADWEIGHT OR AS SPECIFIED IN THE GEOTECHNICAL REPORT. UNDER THE SUPERVISION OF AN EXPERIENCED GEOTECHNICAL ENGINEER OR AN EXPERIENCED CIVIL ENGINEER. ANY AREAS ON THE SUBGRADE EXHIBITING EXCESSIVE DEFLECTION / MOVEMENT UNDER ROLLER TO BE EXCAVATED TO A MIN. DEPTH OF 0.5m AND REPLACED WITH APPROVED GRANULAR MATERIAL COMPACTED IN 250mm LOOSE LAYERS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- ENGINEERED FILL FOR REPLACEMENT OF SOFT OR HEAVING AREAS OR FOR BULK FILLING TO COMPRISE ESSENTIALLY OF GRANULAR MATERIALS (EG. EXCAVATED SHALE), WITH A PARTICLE SIZE NOT GREATER THAN 75mm DIAMETER. ENGINEERED FILL TO BE PLACED IN LAYERS NOT EXCEEDING 250mm LOOSE THICKNESS AND COMPACTED TO 100% OF STANDARD MAXIMUM DRY DENSITY (SMDD) WITHIN ± 2% OF OPTIMUM MOISTURE CONTENT (OMC).
- IMPORTED FILLING (IF REQUIRED) IS TO BE TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR IS TO NOMINATE THE SOURCE AND PROVIDE A SAMPLE FOR APPROVAL PRIOR TO IMPORTATION AND PLACEMENT ON SITE.
- ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING.
FREE FORM ORGANIC AND PERISHABLE MATTER
MAXIMUM PARTICLE SIZE = 75mm
MAXIMUM PLASTICITY INDEX = 15%
MIN CBR 5%
- ALL IMPORTED FILL MATERIAL SHALL BE IN ACCORDANCE WITH SPECIFICATIONS FROM GEOTECH REPORT BY GEOTECHNIQUE DATED 10.08.2022 REFERENCE NUMBER 202191-AA.
- ALL EARTHWORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH GEOTECH REPORT BY GEOTECHNIQUE DATED 10.08.2022 REFERENCE NUMBER 202191-AA.
- IN-SITU DENSITY TESTING AND SUPERVISION MUST BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED WITHIN GEOTECH REPORT BY GEOTECHNIQUE DATED 10.08.2022 REFERENCE NUMBER 202191-AA.

BULK EARTHWORKS QUANTITIES

TOTAL AREA (6409m ²)	
CUT	17299 m ²
FILL	684 m ²
EXCESS OF CUT OVER FILL	16615 m ²

EXCAVATION FOR RETAINING WALLS HAS BEEN ESTIMATED IN CALCULATION
EXCAVATION FOR SERVICE TRENCHES NOT INCLUDED IN CALCULATION BUT SUBJECT TO FUTURE STRUCTURAL DESIGN
VOLUME HAS BEEN CALCULATED AFTER STRIPPING THE SITE OF TOPSOIL - ASSUMED TOPSOIL DEPTH 150mm. STRIPPED MATERIAL NOT INCLUDED IN ABOVE QUANTITIES
ASSUMED 250mm PAVEMENT SET DOWN

BULK EARTHWORKS CUT AND FILL PLAN

SCALE: 1:200



FOR DA ONLY

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
03	ISSUED FOR DA ONLY	IK	AF	05.12.2022					
02	ISSUED FOR DA ONLY	IK	AF	29.11.2022					
01	ISSUED FOR DA ONLY	IK	NH	25.11.2022					

Client	OPAL HEALTHCARE
Architect	GROUP GSA
This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.	

Suite 2.01 826 Pacific Highway Gordon NSW 2072	Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hhconsult.com.au Web www.henryandhymas.com.au
--	--



Project	NARWEE PARKLANDS CARE COMMUNITY 59-67 KARNE STREET, NORTH NARWEE, NSW
Title	BULK EARTHWORKS CUT AND FILL PLAN

Drawn	S.Chen	Designed	N.Heazlewood	Date	AUG 2022
Checked	N.Heazlewood	Approved	A.Francis	Scale	BA1
Drawing number	22M21_DA_BE01			Revision	03